



Exploring English Learning Motivation Based on Self-Determination Theory of First-Year Chinese Students at Yunnan University of Finance and Economics

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Abstract

This study, grounded in Self-Determination Theory (SDT), investigates the English learning motivation of first-year students at Yunnan University of Finance and Economics (YUFE). SDT emphasizes the importance of autonomy, competence, and relatedness in fostering student motivation. A survey was conducted to explore English learning motivation among first-year Chinese students at Yunnan University of Finance and Economics, based on SDT. The study aimed to (1) explore the level of English learning motivation based on SDT among first-year Chinese students at Yunnan University of Finance and Economics and (2) investigate whether there is a significant difference in English learning motivation based on SDT between male and female first-year Chinese students at Yunnan University of Finance and Economics. A total of 341 first-year students participated in the study, and their motivation levels were assessed through a structured questionnaire based on the SDT framework. The results revealed that, on average, students demonstrated a high level of motivation towards learning English ($M = 3.64$, $SD = 0.78$), with relatedness scoring the highest ($M = 3.72$, $SD = 0.75$), followed by autonomy ($M = 3.60$, $SD = 0.78$) and competence ($M = 3.60$, $SD = 0.81$). The findings suggest that students value social interactions and peer relationships in their English learning, while also showing moderate independence and confidence in their abilities. Additionally, an independent samples t-test was conducted to examine gender differences in motivation. The findings revealed a statistically significant difference in overall English learning motivation between male and female students ($p < 0.05$), with female students ($M = 3.66$, $SD = 0.78$) scored higher than male students ($M = 3.52$, $SD = 0.77$). Significant gender differences were also found in autonomy ($p = 0.001$), competence ($p = 0.019$), and relatedness ($p = 0.006$), with female students scored higher in all dimensions. Female students demonstrated greater confidence, self-regulation, and engagement in social learning activities, while male students may require additional support to enhance their motivation and autonomy. These findings contribute to a better understanding of English learning motivation among Chinese university students and provide implications for educators to develop targeted instructional strategies that enhance motivation through autonomy support, competence-building activities, and interactive learning environments. Educators should incorporate

collaborative learning strategies, such as group discussions and peer feedback, to foster a sense of relatedness and engagement, particularly for male students.

Keywords: Self-Determination Theory, English learning motivation, Autonomy, Competence, Relatedness, Gender difference

1. Introduction

English proficiency has become a critical competency in globalized education and economics, particularly for Chinese university students in fields like economics and finance. This study investigates English learning motivation among first-year students at Yunnan University of Finance and Economics (YUFE), employing Self-Determination Theory (SDT; Ryan & Deci, 2020) as the framework. SDT posits that fulfilling psychological needs for autonomy, competence, and relatedness enhances motivation and well-being. While SDT's relevance is well-documented in Western contexts (Niemic & Ryan, 2009; Ai et al., 2021), its application to culturally diverse regions like Yunnan—where socio-economic disparities and rural-urban divides shape learning experiences—remains underexplored.

Chinese students face unique challenges in English acquisition, including exam-driven curricula and uneven access to resources (Chen et al., 2005; Raza et al., 2021). At YUFE, first-year students navigate these barriers while transitioning to self-directed university learning, compounded by pressures to master English for careers in economics and finance. Prior research has focused on urban centers, neglecting regions like Yunnan where cultural diversity and economic transitions influence motivation (Wu, 2021). Furthermore, gender differences in motivation, though observed globally (Dörnyei, 2019), lack contextualized analysis in such settings.

The findings of this study offer theoretical contributions by extending SDT's applicability to non-Western, economically evolving contexts, and practical strategies for gender-responsive pedagogy. For instance, curriculum adjustments integrating student agency (autonomy), scaffolded skill-building (competence), and peer collaboration (relatedness) could mitigate motivational disparities. Such insights align with calls for equitable language education that adapts to regional needs (Wu & Lin, 2016; Getie, 2020).

Motivation, thus plays a pivotal role in English language teaching (ELT), directly influencing students' engagement, persistence, and success in learning a new language. Motivated students tend to actively participate in class, practice language skills outside of lessons, and tackle challenges in their learning process. Ryan and Deci (2020) argue that satisfying students' intrinsic psychological needs for autonomy, competence, and relatedness boosts their intrinsic motivation, leading to improved learning outcomes. Additionally, Yasmin et al. (2022) found that motivated learners generally show higher levels of language proficiency and communicative competence.

Motivation plays a pivotal role in English language teaching (ELT), directly influencing students' engagement, persistence, and success. Motivated students actively participate in class, practice language skills outside lessons, and tackle learning challenges (Ryan & Deci, 2020). Research shows that fulfilling intrinsic psychological needs boosts motivation, leading to improved learning outcomes (Yasmin et al., 2022). However, cultural expectations, such as a strong focus on exam results rather than practical language skills, further influence motivation (Chen et al., 2005).

The significance of this study lies in its potential to inform curricula, teaching methods, and institutional policies. By addressing gender differences and aligning teaching with students' motivational needs, educators can create more inclusive and responsive learning environments (Papi & Hiver, 2020). Ultimately, this research enhances understanding by

linking motivation, gender, and educational context within the SDT framework, offering a nuanced perspective on how motivational factors relate to student identity and educational environments (Eccles & Wigfield, 2020).

2. Objectives

2.1 To explore the level of English learning motivation based on SDT of first-year Chinese students and Yunnan university of Finance and Economics.

2.2 To investigate whether there is a significant difference in English learning motivation based on SDT between male and female first-year Chinese students at YUNNAN University of Finance and Economics.

3. Research Questions

3.1 What is the level of English learning motivation based on Self-Determination Theory (SDT) perceived by first-year Chinese students at Yunnan University of Finance and Economics?

3.2 Is there a significant difference in English learning motivation based on Self-Determination Theory (SDT) between male and female first-year Chinese students at Yunnan University of Finance and Economics?

4. Research Hypothesis

There is a significant difference in English learning motivation based on Self-Determination Theory (SDT) between male and female first-year Chinese students at Yunnan University of Finance and Economics.

5. Literature Review

5.1 Self-Determination Theory (SDT) and English Learning Motivation

Self-Determination Theory (SDT), developed by Deci and Ryan (1985), posits that motivation arises from both intrinsic and extrinsic factors. Intrinsic motivation comes from internal rewards or a genuine interest in an activity, while extrinsic motivation is driven by external incentives such as rewards or punishments. SDT asserts that learning is most effective when individuals are intrinsically motivated (Ryan & Deci, 2020). The theory identifies three key psychological needs—autonomy, competence, and relatedness—that play a vital role in fostering intrinsic motivation.

Autonomy in English Learning

Self-Determination Theory (SDT) posits that autonomy is a fundamental psychological need for fostering intrinsic motivation (Ryan & Deci, 2020). In English language learning, autonomy enhances motivation by allowing learners to align their learning with personal interests and goals (Mynard & Shelton-Strong, 2022). This study examines autonomy through four key aspects: ability, freedom, willingness, and goal setting.

Ability refers to learners' capacity to manage their learning process, including setting objectives, selecting methods, and monitoring progress. Research shows that learners who effectively self-regulate their learning demonstrate higher motivation and proficiency (Csizér et al., 2021).

Freedom involves learners' ability to make choices about their learning activities. Providing meaningful choices and promoting self-directed learning can significantly boost motivation and engagement (Ryan & Deci, 2017). For example, Zainuddin and Perera (2017)

found that flipped classrooms, which grant students more freedom, enhance peer interactions and autonomous learning skills.

Willingness reflects learners' voluntary engagement in learning activities. In autonomy-supportive environments, students are more likely to engage willingly, driven by intrinsic interest rather than external pressures (Ryan & Deci, 2019). Studies indicate that learners who perceive their teachers as promoting autonomy report higher intrinsic motivation and persistence (Mynard & Shelton-Strong, 2022).

Goal Setting is critical for autonomy, as it enables learners to establish and achieve personal learning goals. Research shows that active participation in goal setting enhances autonomy and motivation (Ryan & Deci, 2017). In China, integrating goal setting into English courses has been shown to improve both motivation and proficiency (Peng, 2012).

In summary, autonomy in English learning encompasses learners' ability to self-regulate, freedom to make choices, willingness to engage, and capacity to set and achieve goals. Autonomy-supportive environments consistently boost intrinsic motivation, engagement, and learning outcomes. This study assesses autonomy using a questionnaire evaluating students' perceptions of control, decision-making freedom, and goal-setting capacity in their English studies.

Competence in English Learning

Competence, a core component of Self-Determination Theory (SDT), refers to learners perceived and actual ability to use English effectively in various contexts. It significantly influences intrinsic motivation and learning outcomes (Ryan & Deci, 2020). In English language learning, competence encompasses linguistic skills and learners' confidence in their abilities, both of which are critical for motivation (Mynard & Shelton-Strong, 2022). This study examines competence through four key aspects: capacity, confidence, feedback, and teacher support.

Capacity refers to learners' actual ability to use English, including proficiency in speaking, listening, reading, and writing. Research indicates that a strong sense of capacity predicts higher motivation and persistence in language learning (Dörnyei, 2005). For example, Liu and Zhang (2021) found that students with higher perceived language capacity were more engaged and motivated in English learning activities.

Confidence reflects learners' belief in their ability to use English effectively. It is crucial for intrinsic motivation, engagement, and persistence in language tasks (Liu & Wang, 2010). Studies show that confident learners are more likely to take risks, participate actively, and persist in their studies (Huang et al., 2020). Building confidence is particularly important in environments where fear of mistakes can hinder communicative competence.

Feedback plays a vital role in nurturing competence. Constructive feedback helps learners identify strengths and areas for improvement, fostering growth in their language abilities (Monteiro et al., 2021). Timely, detailed, and motivational feedback can significantly enhance students' sense of competence by providing clear guidance and boosting confidence (Binu, 2020). Li and Chen (2019) emphasize that precise, actionable feedback from teachers positively impacts students' self-efficacy and competence.

Teacher Support is essential for fostering competence. Supportive teachers create environments where students feel valued and motivated to develop their language skills. Research shows that teacher support—such as providing practice opportunities, encouragement, and empathy—enhances linguistic competence and motivation (Zheng & Borg, 2014). In China, educational reforms balancing high standards with communicative teaching methods have been shown to improve practical language use while maintaining accuracy (Zhao & Xu, 2021).

In summary, competence in English learning encompasses learners' actual and perceived abilities, confidence, and the role of feedback and teacher support. It is a key driver of intrinsic motivation, engagement, and persistence. This study assesses competence through a questionnaire measuring students' self-reported proficiency and confidence in using English. The findings aim to provide insights into how educators can better support students' academic growth and personal development.

Relatedness in English Learning

Relatedness, a core component of Self-Determination Theory (SDT), refers to the need for social connection and a sense of belonging, which significantly influences motivation and educational outcomes (Ryan & Deci, 2019). In English language learning, relatedness involves students feeling connected to peers and teachers through interactions, collaborative learning, and group discussions. This study explores relatedness through three key aspects: interactions, collaborative learning, and group discussions.

Interactions within the classroom are essential for fostering relatedness. Positive exchanges between students and teachers, as well as among peers, create a supportive learning environment. Xu and Padilla (2013) found that Chinese ESL students who experienced positive interactions reported higher motivation and lower anxiety. Similarly, Lee et al. (2020) demonstrated that strong social support from teachers and peers enhances motivation and language outcomes, underscoring the importance of nurturing positive interactions.

Collaborative Learning strengthens relatedness by encouraging interaction and relationship-building. Activities such as group projects, peer tutoring, and discussion forums improve language skills while fostering social connections. Kormos (2020) highlighted that collaborative tasks provide emotional and motivational support, enhancing students' sense of belonging. Dörnyei and Al-Hoorie (2017) further emphasized that collaborative learning environments create a sense of community and shared goals, which are vital for sustaining motivation.

Group Discussions promote relatedness by enabling students to share ideas, develop critical thinking skills, and engage in meaningful interactions. Research shows that group discussions foster a sense of connection and collaboration, enhancing linguistic and cultural competence (Dörnyei & Murphey, 2015). Digital communication tools also play a role, offering students opportunities to connect with a global network of English learners (Godwin-Jones, 2019).

In summary, relatedness is a critical factor in creating a motivating and supportive English learning environment. Interactions, collaborative learning, and group discussions are effective strategies for enhancing relatedness, helping students build social connections and engage with a global community. Empirical evidence shows that higher levels of relatedness correlate with greater satisfaction and persistence in language learning (Dörnyei & Al-Hoorie, 2017). Educators should prioritize fostering positive relationships among students and between students and teachers to improve engagement and achievement in English learning.

5.2 Gender Differences in English Learning

Gender differences in English learning among Chinese students reveal notable variations in motivation and behavior, which can significantly affect educational outcomes. Research has shown that gender plays a role in shaping learning strategies, perceptions, and overall motivation in English language learning settings in China. For example, Wu and Lin (2016) found that female students tend to employ a broader range of vocabulary learning strategies compared to their male counterparts, suggesting that gender influences learning behaviors and outcomes. Similarly, Getie (2020) found that female students generally display

more positive attitudes toward learning English than male students. This is consistent with findings by Sabiq et al. (2021), who examined the impact of gender differences on English as a Foreign Language (EFL) learners' motivation and found that females usually show higher motivation levels and more favorable attitudes toward English learning.

Moreover, Joshi (2020) pointed out that male and female students tend to use different linguistic forms, which can be linked to the distinct social and psychological orientations shaped by gender. This difference in language use and learning strategies highlights the broader educational implications, calling for pedagogical approaches that cater to these differences. Despite the generally more positive attitudes of female students toward English learning, the larger issue remains that, for both genders, Chinese students often show lower motivation levels toward learning English (Chen, 2016). This diminished motivation is largely due to the high-pressure educational system and the exam-focused approach that dominates Chinese education. These studies underscore the need for reforms that inspire genuine interest and motivation across genders, moving beyond the conventional exam-oriented teaching methods.

5.3 Challenges Faced by First-Year Students

The transition into the first year of university presents a unique set of challenges and motivational dynamics for students, particularly those learning English as a Second Language (ESL) or as a Foreign Language (EFL). For first-year students, university typically offers more autonomy over their learning compared to what they experienced in secondary school. This increase in autonomy can boost motivation if students are equipped to manage their learning effectively. When students feel in control of their learning activities—such as choosing study topics or organizing their schedules—their intrinsic motivation and engagement tend to increase (Meece, Glienke, & Burg, 2006). However, without sufficient support, this autonomy may lead to feelings of overwhelm and disengagement (Krause, 2007).

Competence, another key component of Self-Determination Theory (SDT), involves the need to feel capable and effective in one's tasks. For first-year students, building a strong sense of competence is crucial to sustaining motivation in English learning. Positive feedback, recognition of accomplishments, and opportunities to showcase their skills can significantly enhance students' perceived competence (Ryan & Deci, 2019). Offering challenging yet achievable tasks, along with constructive feedback, can improve both competence and motivation (Hattie & Timperley, 2007).

The sense of connectedness with peers and instructors also plays a vital role in maintaining motivation for first-year students. Building a sense of community in the classroom helps reduce feelings of isolation and supports both emotional and academic adjustment. Relatedness, the need to feel connected to others and part of a community, is especially important for boosting motivation. Activities that encourage interaction and collaboration can strengthen relatedness, leading to higher motivation levels (Thomas, 2012). Xu and Padilla (2013) found that creating a classroom environment where students feel understood and valued can reduce anxiety and improve motivation.

5.4 Conceptual Framework

This study is grounded in Self-Determination Theory (SDT) (Ryan & Deci, 2020), which posits those three innate psychological needs—autonomy (volitional control over learning), competence (confidence in mastering skills), and relatedness (social connectedness)—drive intrinsic motivation. The framework integrates gender differences to explore how these needs shape English learning motivation among first-year Chinese students

at Yunnan University of Finance and Economics (YUFE).

Autonomy is operationalized through students' ability to choose learning content, methods, and goals. Competence reflects their perceived proficiency in language tasks and responsiveness to feedback. Relatedness emphasizes peer and teacher interactions in collaborative settings. Gender differences are examined to identify motivational disparities between male and female students, aligning with prior findings that females often exhibit higher engagement and self-regulation in language learning (Wu & Lin, 2016; Getie, 2020).

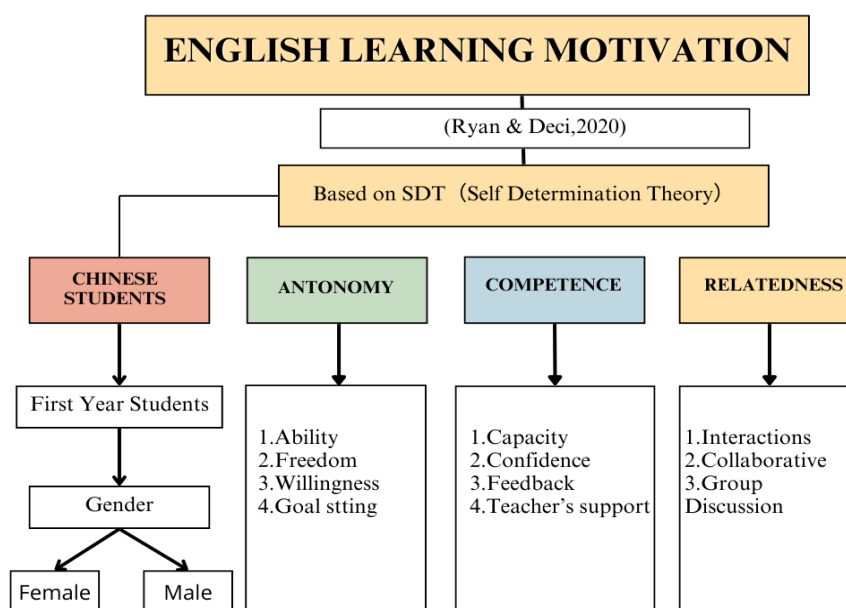


Figure 1 Conceptual Framework

6. Research Methodology

6.1 Research Design

This study adopted a quantitative research design to explore the English learning motivation of first-year Chinese students at Yunnan University of Finance and Economics (YUFE). A cross-sectional survey was employed to collect data at a single point in time, allowing for the examination of motivational patterns based on Self-Determination Theory (SDT). The study focused on three core SDT dimensions—autonomy, competence, and relatedness—while also investigating gender differences in.

6.2 Population and Sample

The study population consisted of 3,000 first-year students enrolled at Yunnan University of Finance and Economics (YUFE), representing diverse academic disciplines. Using Krejcie and Morgan's (1970) sample size table, a sample of 341 students was selected through convenience sampling. This sample size was determined to be statistically appropriate for a population of 3,000, as it ensures a 95% confidence level with a 5% margin of error, providing reliable and generalizable results.

Convenience sampling was chosen due to its practicality and feasibility, given the large and diverse student population. This method allowed for efficient data collection within the limited timeframe of the study while ensuring representation across key academic

disciplines. The sample included 177 male and 164 female students to ensure gender balance. Participants were drawn from six colleges: International Language and Culture, Tourism and Hotel Management, International Business, Economics, Law and Politics, and Information. This approach ensured that the sample reflected the diversity of the student population and provided insights into English learning motivation across different academic contexts.

6.3 Research Instrument

The primary data collection tool was a structured questionnaire based on the SDT principles, consisting of 33 items divided into three sections. Autonomy (10 items) measured students' ability to control their learning process, including goal setting and resource selection. Competence (15 items) assessed students' confidence in their English skills and their responsiveness to teacher feedback. Relatedness (8 items) evaluated students' social interactions and sense of belonging in the learning environment. The questionnaire utilized a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) and was validated by three experts in language education, achieving an Index of Content Validity (IOC) of 0.927, indicating high relevance and clarity. A pilot test with 30 students confirmed the instrument's reliability, with Cronbach's alpha values of 0.909 for Autonomy, 0.938 for Competence, and 0.918 for Relatedness (see Table 1).

Table 1: Reliability analysis results

| Variant | Subject | Cronbach α |
|---------------|---------|-------------------|
| Autonomy | 10 | 0.909 |
| Competence | 15 | 0.938 |
| Relatedness | 8 | 0.918 |
| Overall scale | 33 | 0.967 |

6.4 Data Collection

Data were collected through an online survey distributed via the Wen Juanxing platform. Participants were provided with an informed consent form before completing the questionnaire. Reminders were sent through instructors to improve response rates. The survey yielded 341 valid responses, which were securely stored and analyzed.

6.5 Data Analysis

To answer research question 1, descriptive statistics, including the mean score (\bar{x} = 3.64) and standard deviation (S.D. = 0.78), were used to assess the overall level of English learning motivation and its sub-dimensions. To address research question 2, an independent samples t-test was conducted to examine gender differences in motivation. Statistical significance was set at $p \leq 0.05$, and data were analyzed using SPSS software (version 27.1).

7. Results

7.1 Overall English Learning Motivation

The results revealed that first-year students at Yunnan University of Finance and Economics (YUFE) exhibited a high level of English learning motivation (M = 3.64, SD = 0.78). Among the three SDT dimensions, Relatedness scored the highest (M = 3.72, SD = 0.75), followed by Autonomy (M = 3.60, SD = 0.78) and Competence (M = 3.60, SD = 0.81).

This indicates that students were highly motivated to study English. (see table 2)

Table 2: Mean of Each Domain of English Learning Motivation Perceived by Students

| Domain | N | Mean (M) | SD | Interpretation |
|-------------|-----|----------|------|----------------|
| Autonomy | 341 | 3.60 | 0.78 | High |
| Competence | 341 | 3.60 | 0.81 | High |
| Relatedness | 341 | 3.72 | 0.75 | High |
| Overall | 341 | 3.64 | 0.78 | High |

7.2 Gender Differences in Motivation

An independent samples t-test revealed a significant gender difference in overall English learning motivation ($p = 0.004$). Female students ($M = 3.66$, $SD = 0.78$) scored higher than male students ($M = 3.52$, $SD = 0.77$). This means that female students were more motivated than male students in learning English, significant differences were also found in all three SDT dimensions) :(as shown in table 3)

Table 3: Independent Samples t-test Comparing English Learning Motivation Between Male and Female Students

| | Gender | | | | t | df | Sig. (2-tailed) |
|-------------|---------------|------|-----------------|------|--------|-----|-----------------|
| | Male (177) | SD | Female (164) | SD | | | |
| Overall | 3.52 | 0.77 | 3.66 | 0.78 | -2.87 | 339 | 0.004 |
| Autonomy | 3.46 | 0.77 | 3.76 | 0.77 | -3.487 | 339 | 0.001 |
| Competence | 3.50 | 0.80 | 3.70 | 0.82 | -2.348 | 339 | 0.019 |
| Relatedness | 3.61 | 0.73 | 3.83 | 0.75 | -2.765 | 339 | 0.006 |

8. Discussion

Research Question 1: To explore the level of English learning motivation based on SDT among first-year Chinese students at YUFE

The study found that first-year students at Yunnan University of Finance and Economics (YUFE) exhibited high overall English learning motivation ($M=3.64$, $SD=0.78$), with Relatedness as the strongest driver ($M=3.72$, $SD=0.75$), followed by Autonomy and Competence (both $M=3.60$). These results aligned with SDT principles (Deci & Ryan, 2020) and mirror findings by Noels et al. (2003), who emphasized the role of social interactions in fostering motivation through teacher and peer relationships. Additionally, Wang and Liu (2019) highlighted that perceived competence is critical for proactive learning, which supports the moderate confidence levels observed in YUFE students.

Practical Implications for Instructors

To leverage students emphasized on relatedness, educators should prioritize collaborative activities such as peer feedback sessions and group projects, as suggested by Kormos (2020) and Dörnyei & Al-Hoorie (2017). For example, structured discussions could enhance social connections while practicing language skills. Fostering Autonomy might

involve allowing students to choose project topics, aligned with Deci and Ryan's (2020) emphasized on autonomy-supportive environments.

Research Question 2: To investigate whether there is a significant difference in English learning motivation based on SDT between male and female first-year Chinese students at YUNNAN University of Finance and Economics.

The study revealed significant gender differences in overall motivation ($p=0.004$), with female students scored higher across all SDT dimensions: autonomy ($p=0.001$), competence ($p=0.019$), and relatedness ($p=0.006$). Female students reported greater confidence ($M=3.70$ vs. $M=3.50$) and stronger social engagement ($M=3.83$ vs. $M=3.61$), aligned with Oxford & Nyikos (1989) and Dörnyei (2009), who noted stronger self-efficacy in female learners. However, the significant autonomy gap contrasts with Chen's (2019) findings of similar autonomy levels across genders, suggesting contextual differences at YUFE.

Gender Differences in English Learning Motivation

The results reveal a statistically significant gender difference in overall English learning motivation ($p=0.004$), with female students reporting higher motivation ($M=3.66$, $SD=0.78$) than male students ($M=3.52$, $SD=0.77$). Significant different were also found in autonomy ($p=0.001$), competence ($p=0.019$), and relatedness ($p=0.006$), with female students scoring higher in all dimensions.

The higher competence scores among female students suggest greater confidence in English proficiency, aligning with previous research highlighting stronger self-efficacy and motivation in female learners (Oxford & Nyikos, 1989; Dörnyei, 2009). Similarly, higher relatedness scores indicate that female students actively engage in peer discussions and seek teacher support, reinforcing the role of social learning in sustaining motivation. Contrary to earlier studies, this research found a significant gender difference in autonomy ($p=0.001$), with female students ($M=3.76$, $SD=0.77$) reporting greater self-regulation and control over their learning compared to male students ($M=3.46$, $SD=0.77$). This challenges previous findings of similar autonomy levels across genders, suggesting that female students are more confident, socially engaged, and independent in managing their English learning.

Different Attitudes of Male and Female Students Toward English Learning

The findings of this study indicate that female students demonstrate notably greater motivation for learning English than their male counterparts. This aligns with prior research, such as Wu and Lin (2016), which found that female students generally show more positive attitudes and greater engagement in second language learning. Specifically, female students scored higher than male students in competence ($p = 0.019$) and Relatedness ($p = 0.006$), suggesting that they feel more confident about their English skills and place greater importance on social interactions in their learning process. Additionally, a significant difference in autonomy ($p = 0.001$) was found, with female students ($M = 3.76$, $SD = 0.77$) reporting higher levels of self-regulation and control over their learning compared to male students ($M = 3.46$, $SD = 0.77$). This indicates that female students not only feel more confident and socially connected but also perceive themselves as more independent in managing their English learning process.

The higher competence scores among female students suggest they have more confidence in handling English learning tasks and applying their language skills. This matches earlier studies that show female students tend to have higher self-efficacy in language learning. The higher Relatedness scores further emphasize the importance of social interactions, as

female students actively participate in discussions, seek support from peers, and engage with teachers more frequently. Research suggests that these behaviors contribute to sustained motivation in language learning.

In contrast to earlier research suggesting that female students are more influenced by external factors (e.g., parental pressure), this study finds a significant gender difference in Autonomy ($p = 0.001$), with female students demonstrating a stronger sense of independence in managing their learning. This finding contrasts with previous studies like those by Bureau et al. (2022) and Skinner et al. (2022), which suggested that external pressures can reduce students' autonomy. However, this study shows that students at Yunnan University of Finance and Economics are increasingly developing self-regulation in their English learning, with female students showing a stronger inclination toward autonomous learning.

Overall, the findings suggest that while both male and female students show strong motivation for learning English, female students tend to be more confident, socially engaged, and self-regulated in their learning. These findings underscore the need for teaching strategies that support male students in building their confidence, while also enhancing peer collaboration and social learning opportunities for all students.

Different Competence Levels Between Male and Female Students

The study revealed a significant gender difference in competence ($p=0.019$), with female students ($M=3.70$, $SD=0.82$) scoring higher than male students ($M=3.50$, $SD=0.80$) indicating greater confidence in handling English learning tasks. These results aligned with earlier research shown that female students often exhibited higher self-efficacy in language learning, leading to better motivation and persistence (Oxford & Nyikos, 1989; Dörnyei, 2009).

Additionally, a significant difference in autonomy ($p=0.001$) was observed, with female students ($M=3.76$, $SD=0.77$) reported greater control over their learning compared to male students ($M=3.46$, $SD=0.77$). This suggested that female students not only feel more confident but also perceive themselves as more independent in managing their learning. Contrary to earlier studies, this research found that female students are more inclined to engage in feedback-driven learning. Wang et al. (2024) highlighted that female students exhibited greater self-regulation and actively integrate teacher feedback into their learning, as evidenced by higher scores on statements like “I can improve my English skills based on my teacher’s feedback” ($M=3.77$, $SD=1.245$, $p=0.024$). Male students, however, rely less on feedback, which may contribute to their lower competence scores.

These findings underscore the need for tailored teaching strategies, such as structured feedback and skill-building exercises, to support male students in building confidence and autonomy while maintaining engagement for female students.

Gender-Responsive Pedagogy and Regional Contextualization

The study’s findings underscored the need for tailored instructional strategies addressing gender-specific motivational profiles. For male students, structured autonomy—such as guided goal-setting frameworks—could mitigate their lower self-regulation ($M=3.46$ vs. females’ $M=3.76$), while technology-driven competence-building exercises may compensate for their weaker reliance on feedback (Wang et al., 2024). Conversely, female students’ strong social engagement ($M=3.83$) and leadership potential could be leveraged through peer-led group activities, aligning with evidence that collaborative roles enhance motivation (Lee et al., 2020). Regionally, YUFE’s moderate competence scores ($M=3.60$) compared to urban universities (Li et al., 2021) suggest resource-related disparities, yet its

emphasized on relatedness ($M=3.72$) mirrors rural institutions where peer support counterbalances limited resources (Wang et al., 2020). These insights highlight the interplay between gender-responsive pedagogy and contextual adaptability, urging educators to design strategies that both address gender gaps and align with regional educational realities.

Social Interactions and Instructional Strategies

The study emphasized the critical role of relatedness—the highest-scoring SDT dimension ($M=3.72$, $SD=0.75$)—in shaping students' English learning motivation. Students value social connections with peers and instructors, which aligned with SDT's emphasized on interpersonal bonds as a driver of engagement (Deci & Ryan, 2020). A significant gender difference in Relatedness ($p=0.006$) further highlighted that female students ($M=3.83$, $SD=0.75$) actively seek peer and teacher support through discussions and collaborative activities, while male students ($M=3.61$, $SD=0.73$) exhibited lower social engagement. This finding corroborated research shown that strong social support enhances language outcomes (Lee et al., 2020). To leverage these insights, educators should prioritize interactive classrooms through collaborative strategies such as peer tutoring and mixed-gender group tasks (Dörnyei & Murphey, 2015). For example, assigning structured group roles (e.g., discussion leaders for females and task coordinators for males) could balance female students' discussion dominance with male students' preference for goal-oriented activities. Such approaches not only bridge gender gaps but also strengthen the sense of community, a key motivator in collectivist educational contexts.

Contrast with Prior Research: Contrary to studies linking external pressures to reduced autonomy (Bureau et al., 2022; Skinner et al., 2022), this research found female students at YUFE demonstrate strong self-regulation ($M=3.76$), suggesting that institutional or cultural factors (e.g., emphasis on collaborative learning) may buffer against autonomy erosion. This underscores the need for context-specific pedagogy that aligns with local educational norms.

Collaborative Learning and Group Discussions

Collaborative learning strategies, such as peer tutoring, group projects, and discussion-based activities, are known to improve students' sense of Relatedness. According to Kormos (2020), collaborative tasks encourage relationship-building, which provides both emotional and motivational support. Additionally, Dörnyei & Al-Hoorie (2017) found that students in collaborative learning environments experience a stronger sense of community, which boosts motivation and engagement in language learning.

Group discussions also enhance Relatedness by offering opportunities for students to exchange ideas, develop critical thinking, and engage in meaningful interactions. Research shows that participation in discussions not only strengthens language comprehension but also fosters a sense of belonging in the classroom (Dörnyei & Murphey, 2015).

Gender Differences in Social Interactions

The study found that female students engage more actively in social interactions than male students, consistent with previous studies suggesting that women are more inclined to seek interpersonal connections in learning environments (Oxford & Nyikos, 1989). Female students' higher Relatedness scores reflect their preference for learning through discussions, peer feedback, and group activities. In contrast, male students, while benefiting from social interactions, tend to be less engaged in collaborative learning experiences, which may explain their lower Relatedness scores.

Implications for Instructional Strategies

Based on these findings, educators should incorporate more collaborative learning activities to create an inclusive learning environment where both male and female students can benefit from peer interactions. Strategies like structured discussions, group tasks, and teacher-led feedback sessions can boost students' motivation and engagement in English learning. Additionally, understanding gender-based preferences in social learning can help instructors design activities that encourage participation from both male and female students.

In conclusion, Relatedness plays a critical role in English learning motivation, with female students showing significantly higher engagement in social learning activities. By fostering an interactive and supportive classroom environment, educators can enhance students' motivation and create a more dynamic, inclusive language learning experience.

Similarities in Autonomy Between Male and Female Students

The study reveals a significant gender difference in Autonomy ($p = 0.001$), with female students ($M = 3.76$, $SD = 0.77$) scoring higher than male students ($M = 3.46$, $SD = 0.77$). This indicates that female students perceive a greater level of control over their learning process, suggesting they have stronger self-regulation and more independent learning habits.

This finding contrasts with previous studies (e.g., Chen, 2019), which suggested that male and female students exhibit similar autonomy levels. However, in this study, female students demonstrated a notably higher ability to manage their learning, set goals, and organize their study schedules. These results imply that gender may play a role in shaping self-determined motivation at this educational stage, with female students showing a stronger inclination towards self-directed learning.

Overall, the findings confirm that female students exhibit significantly higher levels of Competence, Relatedness, and Autonomy than their male counterparts. This suggests that female students are generally more confident, socially engaged, and self-regulated in their English learning, while male students may need additional support to boost their competence and classroom engagement. These results align with previous research indicating that female students tend to have stronger motivation in language learning due to their confidence and social engagement. However, they challenge past assumptions that no gender differences exist in autonomy, highlighting that female students at YUFE perceive themselves as more self-regulated learners compared to male students.

Limitation of the study

This study has several limitations that should be acknowledged. First, the reliance on self-reported questionnaire data may introduce biases, such as social desirability bias, where participants provide responses they perceive as favorable rather than reflecting their true experiences. While this method effectively captures students' perceived motivation, it does not measure their actual learning behaviors or engagement, which may differ from their self-reported attitudes. Second, the study's exclusive use of quantitative methods limits the depth of understanding regarding the underlying reasons for students' motivation. Incorporating qualitative approaches, such as interviews, focus groups, or classroom observations, could provide richer insights into the personal and contextual factors influencing motivation. A mixed methods design in future research would help bridge this gap by combining the breadth of quantitative data with the depth of qualitative analysis. Additionally, the study's focus on first-year students at Yunnan University of Finance and Economics (YUFE) restricts the generalizability of the findings. The unique cultural, institutional, and regional context of

YUFE may not fully represent the experiences of students in other universities or regions in China. Expanding the sample to include diverse institutions and student populations would enhance the external validity of the findings. Finally, while the study explored gender differences in motivation, it did not account for other potentially influential factors, such as prior English proficiency, socioeconomic background, or the learning environment. These variables could significantly shape students' motivation and engagement in English learning. Future research should consider these factors to provide a more comprehensive understanding of the dynamics of English learning motivation.

In conclusion, while this study offers valuable insights into English learning motivation among first-year students at YUFE, its limitations highlight the need for further research. Addressing these limitations through mixed methods designs, broader sampling, and the inclusion of additional variables would strengthen the validity and applicability of future findings.

Pedagogical Implications

The findings offer actionable insights for enhancing English learning motivation among first-year students at Yunnan University of Finance and Economics (YUFE), grounded in Self-Determination Theory (SDT; Ryan & Deci, 2020). Educational administrators should prioritize curriculum adjustments that integrate SDT-based motivational strategies, such as autonomy-driven modules allowing students to select thematic units (e.g., business English vs. cultural communication), competence-building frameworks with scaffolded assignments, and relatedness-focused activities like cross-disciplinary group projects to strengthen peer networks. Concurrently, teacher training programs should emphasize gender-sensitive pedagogical approaches, equipping instructors with strategies to address motivational disparities—for instance, tailoring feedback styles (e.g., task-oriented guidance for male students and discussion-based reflection for female students) and recognizing gender-specific engagement patterns in classroom interactions (Dörnyei, 2009; Oxford & Nyikos, 1989). For English language instructors, enhancing autonomy through student-led projects (e.g., self-chosen reading topics or presentations), fostering competence via incremental goal setting (e.g., weekly vocabulary targets) and formative feedback, and reinforcing relatedness through interactive activities (e.g., debates, role-plays) are critical. Gender-inclusive strategies should also be implemented: male students may benefit from leadership roles in technology-driven tasks (e.g., podcast creation) to boost confidence, while female students' engagement can be sustained through peer mentoring programs and collaborative writing workshops. These recommendations collectively underscore the need for contextually adaptable, SDT-aligned pedagogy that bridges gender gaps and leverages social learning dynamics within YUFE's unique educational environment.

Recommendations for further research

Future research could investigate the long-term effects of Self-Determination Theory (SDT) on students' English learning motivation through longitudinal studies, spanning one to two years. This extended period would allow researchers to observe how motivation evolves as students' progress through their academic years, particularly during their transition from freshman to sophomore year. Furthermore, incorporating qualitative methods such as interviews and focus groups could provide deeper insights into students' motivational experiences. Future studies could also assess the effectiveness of intervention programs aimed at enhancing autonomy, competence, and relatedness, particularly in different educational settings beyond Yunnan University of Finance and Economics.

By applying these suggestions, educators and administrators could boost students' English learning motivation, create a more engaging environment, and ultimately enhance language learning outcomes.

8. Conclusion

This study explored the English learning motivation of first-year Chinese students at Yunnan University of Finance and Economics (YUFE), using Self-Determination Theory (SDT) as a framework to examine the influence of Autonomy, Competence, and Relatedness. It also investigated whether gender differences existed in motivation levels. A quantitative approach was employed to assess students' motivation and to analyze the differences between male and female learners.

The statistical analysis provided valuable insights into how the components of SDT impact motivation, with Competence and Relatedness emerging as particularly influential factors. Female students were found to have significantly higher motivation across all three SDT components compared to male students. Specifically, female students reported higher levels of Autonomy ($M = 3.76$, $SD = 0.77$) compared to male students ($M = 3.46$, $SD = 0.77$), with a statistically significant difference ($p = 0.001$). Female students also scored higher in Competence ($M = 3.70$, $SD = 0.82$ vs. $M = 3.50$, $SD = 0.80$, $p = 0.019$) and Relatedness ($M = 3.83$, $SD = 0.75$ vs. $M = 3.61$, $SD = 0.73$, $p = 0.006$). These findings highlight the greater confidence, engagement, and social interaction exhibited by female students in their English learning process.

These results contribute to the broader understanding of language learning motivation within the Chinese higher education context, offering practical insights for educators and policymakers to enhance teaching strategies. The findings emphasize the importance of creating an interactive and supportive learning environment to boost students' motivation and participation in English learning. Additionally, this research paves the way for further investigations into SDT-based motivation models in diverse educational settings, helping to ensure that language learning strategies address both individual student needs and gender differences.

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