Teacher Autonomy, Creative Self-efficacy, and Innovative Behavior: Perspectives from Chinese University EFL Teachers

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Abstract
Teachers’ innovative behavior contributes to students’ academic achievements, school innovation, and even the quality of education. This study aims to investigate the correlations between teacher autonomy, creative self-efficacy, and innovative behavior from the perspectives of Chinese university EFL teachers. The significance of the current study lies in exploring how different motivational mechanisms influence teachers’ innovative behavior, providing references for improving their teaching effectiveness and professional development. The main research question that guided this study was: What are the interrelationships between teacher autonomy, creative self-efficacy, and innovative behavior among EFL teachers? This study recruited 297 Chinese university EFL teachers as the sample, inviting them to fill in a self-reported questionnaire to assess teacher autonomy, creative self-efficacy, and innovative behavior. Results showed that teacher autonomy positively predicted teachers’ creative self-efficacy and innovative behavior; creative self-efficacy partially mediated the relationship between teacher autonomy and innovative behavior. The findings suggest that education administrators should offer teachers autonomous support and tailored training programs to inspire their innovation. Additionally, teachers may work collaboratively with their colleagues and obtain peer support to execute innovative practices, which facilitates both students’ innovative performance and teachers’ professional development. Finally, as innovative behavior is complex and dynamic, future research may add other organizational and individual factors while considering cultural differences and institutional systems to explore teachers’ innovative behavior.

Keywords: creative self-efficacy, EFL teachers, innovative behavior, professional development, teacher autonomy

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Introduction

The rapid development of artificial intelligence (AI) technology brings both promising opportunities and challenges to educational reforms (Syerina Syahrin & Akmal, 2024). Confronting such a situation, the Chinese government has mandated that universities and colleges cultivate talents with comprehensible skills to meet the demands of future employers in the workplace. In Chinese EFL educational settings, students have to improve their English proficiency and develop their innovative abilities in dealing with complex situations. As the principal character in implementing teaching tasks and interacting with students, teachers play a significant role in cultivating creative and innovative citizens in this knowledgeable society (Vermeulen et al., 2020). Therefore, it is crucial to explore factors influencing teachers’ Innovative Behavior (IB), for it helps to facilitate students’ academic achievements and teachers’ professional development.

Among a series of variables influencing people’s IB, individuals’ autonomous motivations have established correlations with their behaviors, including innovation (Deci & Ryan, 2008). According to Self-determination Theory (SDT), employees have three basic psychological needs—the need for competence, autonomy, and relatedness, which significantly predict their sense of autonomous motivations, thus positively affecting their work performance and behavior (Deci et al., 2017). Previous research has investigated these three needs as a construct, but limited studies have differentiated the concrete effects of each need in detail (Cai & Tang, 2022). The Need for Autonomy (NA) refers to a person’s need to experience freedom and volition based on their actions. The present study mainly investigates the effect of NA on teachers’ IB for these reasons. First, NA stands as the core factor among the three needs, and employees achieve need satisfaction and higher well-being and performance when they get autonomy support from their supervisors (Deci et al., 2017). Second, critics of SDT perceive that autonomy fits individualistic cultures rather than collectivistic cultures, such as in Asia (e.g., Markus & Kitayama, 1991). However, other scholars found that when employees were more autonomous, they became more psychologically satisfied and optimistic at work across all cultures (Chirkov et al., 2003; Deci et al., 2017). As this study was conducted in China where collectivistic culture prevails, it is fascinating to examine whether autonomy affects individuals’ IB in Asian educational institutions. Hence, the current study perceives autonomy as one crucial factor influencing teachers’ innovative behavior.

In alignment with Bandura’s (1977) notions, self-efficacy concerning one’s self-confidence in achieving expected outcomes could well predict human behavior. Developing from self-efficacy, Creative Self-Efficacy (CSE) has been attached to great significance in predicting individuals’ innovative behavior. Unlike one’s intrinsic motivation, which is comparatively stable, CSE is a self-regulatory state susceptible to different contextual factors (Farmer & Tierney, 2017). Employees with higher CSE are more confident and persistent in transferring their novice ideas to innovative performance, even when facing challenges and setbacks (Tierney & Farmer, 2002; Xu et al., 2021). As teachers’ CSE relates to their confidence in fulfilling specific teaching tasks and applying new ideas, it positively affects their IB in institutions (Hsiao et al., 2011).

Teachers’ creative self-efficacy can further influence the relationship between teacher autonomy and innovative behavior in the workplace. When teachers perceive higher autonomous support from their supervisors, they might achieve higher self-efficacy and psychological safety in renovating their teaching approaches. This study aims to investigate the interrelated relationships between teacher autonomy, creative self-efficacy, and teachers’ innovative behavior.
The significance of the current research lies in unraveling different motivational factors influencing teachers’ innovative behavior in the Chinese EFL context, which may provide references for improving student achievements, teaching effectiveness, and teachers’ professional development. Therefore, the objectives of this study are to answer the following research questions:

(1) What are the interrelationships between teacher autonomy, creative self-efficacy, and innovative behavior among EFL teachers?

(2) Does creative self-efficacy mediate the relationship between teacher autonomy and innovative behavior among EFL teachers?

Based on the proposed interrelationships between the three variables as discussed above, this study hypothesizes the following:

Hypothesis 1: Teacher autonomy positively correlates with EFL teachers’ innovative behavior.

Hypothesis 2: Teacher autonomy positively correlates with EFL teachers’ creative self-efficacy.

Hypothesis 3: Creative self-efficacy positively correlates with EFL teachers’ innovative behavior.

Hypothesis 4: Creative self-efficacy mediates the relationship between teacher autonomy and innovative behavior among EFL teachers.

**Literature Review**

**Innovative Behavior**

According to Scott and Bruce (1994), IB is a multistage process with various essential activities and behaviors at each stage. Janssen (2003) defined IB as a three-stage process: individuals’ idea generation, idea promotion, and idea realization to improve role performance and group or organization effectiveness. In the educational realm, many scholars adopted Janssen’s (2003) three-stage conceptualization of IB. In contrast, other authors explored teachers’ IB by focusing on one or two stages, such as idea generation (So, 2013), idea generation, and realization (Borasi & Finnigan, 2010), to fit their research. Given its research purpose to explore teachers’ innovative intentions and practices at the workplace, this study defined IB as teachers’ willingness to transform teaching practices, efforts to design and implement innovative teaching practices to promote students’ innovative performance in class (M. Zhang & X. Zhang, 2012).

**Teacher Autonomy and Teachers’ Innovative Behavior**

Individual autonomy is a broad concept relating to one’s discretion in scheduling the work and choice to exercise professional practices (Dikilitaş & Mumford, 2019; Evans & Fischer, 1992). In the educational context, teacher autonomy is a multidimensional concept “mainly focusing on issues of self-governance and experiences of ‘freedom’ in professional practice” (Mausethagen & Molstad, 2015, p.31). Previous literature categorized TA into two primary constructs; one construct refers to teachers’ classroom autonomy, including teachers’ decision-making on their classroom practices, including lesson plans, teaching materials and approaches, curricular development, and student outcome assessment (Ozdemir & Cakalci, 2022; Nguyen et al., 2021). The other focuses on teachers’ participation in school-level decisions, such as affecting school culture or policymaking (Benson, 2010). This study defines TA as teachers’ freedom to determine the curricula, teaching approaches and techniques, teaching contents, teaching processes, and
assessment of student learning and assignments (OECD, 2020).

As TA empowers teachers with the freedom and control of classroom management, they may feel respected and recognized in the workplace (Erss et al., 2016). With a sample of 473 Chinese university EFL teachers, Han, Gao, and Yang (2021) concluded that autonomy positively correlated with their innovation performance and teaching satisfaction. An autonomous teacher will innovate the learning materials, teaching approaches, and evaluation methods to fit students’ learning expectations and skills (Orakci & Durnali, 2022). Conversely, teachers’ perceptions of restricted autonomy negatively affected their innovations and openness to school improvement (Buske, 2018). These studies have provided empirical evidence that teacher autonomy positively correlates with teachers’ innovative behavior.

Creative Self-efficacy and Innovative Behavior

According to Bandura (1977), self-efficacy refers to individuals’ self-judgements to achieve certain outcomes through different actions. Instead of focusing on one’s skills or competence, self-efficacy relates to one’s perception and internal beliefs to succeed in a particular situation (Orakci et al., 2023). Based on theory related to creativity and innovation management, Tierney and Farmer (2002) defined CSE as “the belief that one possesses the ability to produce creative outcomes” (p.1138). As innovation is complex and challenging in real situations, individuals need specific knowledge, expertise, and self-confidence to transfer creative ideas into innovative outcomes. According to Michael, Hou, and Fan (2011), “Individuals with high creative self-efficacy can mobilize the motivation, cognitive resources, and courses of action needed to meet situational demands” (p.260). Previous studies reported that CSE produced an internal drive for individuals to carry out innovative activities in the workplace (Nur Hidayah & Rodhiah Rodhiah, 2024; Yuan et al., 2023). With higher creative self-efficacy, teachers are more willing and motivated to execute innovative behavior in teaching activities and professional development (Klaeijsen et al., 2017; Liu et al., 2022). These studies have highlighted the role of creative self-efficacy in predicting individuals’ innovative behavior.

Creative Self-Efficacy as a Mediator

As innovativeness is a trial-and-error process, it is significant to create a friendly environment that encourages innovation without the pressure of making mistakes (Fang et al., 2019). On one hand, TA grants teachers trust and respect to execute their professional practices, which may generate higher CSE among teachers (Nembhard & Edmondson, 2006). Teachers with high self-efficacy perceived that they had high autonomy over classroom management (Orakci & Durnali, 2022; Ozkal, 2014). Studies provided evidence of a strong association between teachers’ autonomy support and their self-efficacy among EFL teachers (Han et al., 2021; Azari & Amirian, 2020). On the other hand, teachers with higher CSE develop the willingness and readiness to invest their time and energy into classroom teaching or renovate their professional development courses.

Additionally, empirical studies also evidenced that self-efficacy not only highly predicted individuals’ IB but also served as a significant mediator between different factors (i.e., innovation culture, leadership, school support) and their IB (Cai & Tang, 2021; Choi et al., 2021; Uppathampracha & Liu, 2022). Conducted in Asian educational contexts, a recent study reported that teacher self-efficacy mediated the relationship between distributed leadership and teacher innovation (Teng et al., 2024). When teachers perceive higher autonomous support and trust from their supervisors, they will develop higher CSE, thus performing more confidently and being
determined to be innovative at work. Therefore, CSE could be an essential mediator in influencing teachers’ innovative behavior through interacting with teacher autonomy.

As discussed above, previous studies have investigated the respective effects of autonomy and creative self-efficacy on influencing teachers’ innovative behavior. However, few studies have examined the mediating role of CSE between TA and IB among Chinese EFL teachers. This study aims to fill this gap by investigating the interrelationships among teacher autonomy, creative self-efficacy, and innovative behavior. Understanding the interrelated correlations of teacher autonomy and creative self-efficacy and their joint impact on teachers’ IB could provide school leaders with insights to improve teachers’ innovative behavior and performance.

Methodology

Participants

This study employed purposeful sampling methods to recruit Chinese university EFL teachers as the sample, as they need to improve students’ language proficiency, learning motivation, and engagement through innovative pedagogical approaches. To generate the population of the participants, the researcher distributed a self-reported questionnaire to 415 EFL teachers in the academic year of 2023. These teacher participants taught various EFL courses in both public and private universities across different provinces in China. The current study informed participants of the anonymous and voluntary basis to administer the questionnaire, finally obtaining 297 valid copies. Table One presented participants’ demographic information, including their gender, education level, and years of teaching experience.

Table 1. Demographic information of teacher participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>85</td>
<td>28.62%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>212</td>
<td>71.38%</td>
</tr>
<tr>
<td>Education</td>
<td>Bachelor’s degree</td>
<td>34</td>
<td>11.45%</td>
</tr>
<tr>
<td></td>
<td>Master’s degree</td>
<td>155</td>
<td>52.19%</td>
</tr>
<tr>
<td></td>
<td>Doctoral Degree</td>
<td>108</td>
<td>36.36%</td>
</tr>
<tr>
<td>Years of teaching</td>
<td>below five years</td>
<td>82</td>
<td>27.61%</td>
</tr>
<tr>
<td>experience</td>
<td>11–15 years</td>
<td>137</td>
<td>46.13%</td>
</tr>
<tr>
<td></td>
<td>16–20 years</td>
<td>62</td>
<td>20.88%</td>
</tr>
<tr>
<td></td>
<td>21 years and above</td>
<td>16</td>
<td>5.39%</td>
</tr>
</tbody>
</table>

Research Instruments

The current study used a self-reported questionnaire to assess the three variables: teacher autonomy, creative self-efficacy, and innovative behavior. The questionnaire included two sections. The first section collected participants’ demographic information, including gender, age, education levels, and years of teaching experience in universities. The second section consisted of three scales: teacher autonomy, creative self-efficacy, and innovative behavior. All the items were rated on a five-Likert scale (1 = strongly disagree to 5 = strongly agree), and the following presented detailed information on the three constructs.

Teacher autonomy. A seven-item scale developed by Zhu et al. (2018) was adapted to measure teacher autonomy. Sample items were “I have the autonomy to determine specific
teaching objectives of the curriculum I taught” and “I have the freedom to choose teaching approaches in my class.” The value of Cronbach’s alpha coefficient of this measurement was .889.

Creative self-efficacy. A four-item scale was adapted from Tierney and Farmer’s (2002) creative self-efficacy scale, determining the degree to which teachers feel confident to generate innovative ideas to solve problems or confront challenging situations. Sample items included “I am confident to use innovative ideas to solve problems” and “I am able to develop innovative ideas.” The value of Cronbach’s alpha coefficient of this measurement was .885.

Innovative behavior. A 12-item instrument measuring teachers’ innovative behavior consisted of three constructs: innovation willingness, action, and result (Zhang & Zhang, 2012). Sample items were, “I am willing to learn from others’ innovative teaching experiences” (innovation willingness), “I apply innovative teaching approaches to improve teaching effectiveness in class” (innovation action), “I encourage students to reflect and negotiate controversial issues at class” (innovation result). The Cronbach’s alpha coefficient values of each construct were assessed to be 0.871, 0.881, and 0.886, respectively.

Control Variables
According to previous research, teachers’ demographic factors may also influence their innovative behavior (Yang & Huang, 2008); this study considers gender, work experience, and education levels as control variables in hypotheses testing.

Data Analysis
The current study conducted the confirmatory factor analysis to evaluate the scales' reliability and validity and employed the software SPSS 27.0 and Amos 26.0 to test the hypotheses through structural equation modeling.

Results
Reliability and Validity Analysis
Before testing the hypotheses, the current study calculated the values of Cronbach’s α and composite reliability (CR) to test the reliability of all scales in this study. Further, the convergent and discriminant validity could be assessed by calculating the average variances extracted (AVE) and the square roots of the AVEs (see Table Two). For this study, the values of Cronbach’s alpha and CR of all variables are above the recommended value of 0.7 (Haier et al., 2010). Further, the values of AVE were above 0.05, showing good convergence validity of all scales. In addition, the discriminant validity could be obtained by taking the square roots of AVE, and Table Two provided sufficient proof that the divergent validity was also satisfactory.

Descriptive Statistics and Correlations
The descriptive statistics and correlations of the variables are presented in Table Three. Of the three subscales of innovative behavior, innovation willingness scored the highest (M=4.018,
SD=0.587), followed by innovation action (M=3.949, SD=0.636) and innovation result (M=3.900, SD=0.628). According to Baron and Kenny (1986), it is necessary to determine the relationship between the independent variable (teacher autonomy) and dependent variable (innovative behavior) before performing the mediation analysis. The correlation matrix demonstrated that teacher autonomy significantly correlated with innovative behavior (r=0.587, p < 0.001), which met the requisite condition for further statistical analysis.

Table 3. Reliability and validity estimates

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>0.286</td>
<td>0.453</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Years of teaching experiences</td>
<td>2.306</td>
<td>1.141</td>
<td>0.111</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Education</td>
<td>2.249</td>
<td>0.646</td>
<td>0.021</td>
<td>-0.379**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. TA</td>
<td>3.884</td>
<td>0.518</td>
<td>0.117*</td>
<td>-0.182**</td>
<td>0.196**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. CSE</td>
<td>4.138</td>
<td>0.599</td>
<td>0.109</td>
<td>-0.180**</td>
<td>0.162**</td>
<td>0.516***</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. IB</td>
<td>3.956</td>
<td>0.531</td>
<td>0.155**</td>
<td>-0.201***</td>
<td>0.208***</td>
<td>0.587***</td>
<td>0.618***</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. Number=297; * p < 0.05; ** p < 0.01; *** p < 0.001.

TA= teacher autonomy; CSE= creative self-efficacy; IB=innovative behavior.

Confirmatory Factor Analysis

The confirmatory factor analysis was performed to measure the proposed variables in this study. This study first constructed the five-factor model as the baseline model and then compared it with other models as demonstrated. Seeing Table Four, the five-factor model fit the data best ($\chi^2 = 297.505$, df = 220, CFI = 0.981, TLI = 0.978, RMSEA = 0.034), while the single-factor model fit the worst ($\chi^2 = 1500.988$, df = 230, CFI = 0.692, TLI = 0.661, RMSEA = 0.137).

Table 4. Comparisons of model validation factor analysis

<table>
<thead>
<tr>
<th>Factors loaded</th>
<th>$\chi^2$</th>
<th>df</th>
<th>GFI</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-factors: TA, CSE, IW, IA, IR</td>
<td>297.505</td>
<td>220</td>
<td>0.921</td>
<td>0.978</td>
<td>0.981</td>
<td>0.034</td>
</tr>
<tr>
<td>4-factors: TA+ CSE, IW, IA, IR</td>
<td>711.890</td>
<td>224</td>
<td>0.775</td>
<td>0.866</td>
<td>0.882</td>
<td>0.086</td>
</tr>
<tr>
<td>3-factors: TA, CSE, IW+ IA+ IR</td>
<td>720.874</td>
<td>227</td>
<td>0.793</td>
<td>0.867</td>
<td>0.880</td>
<td>0.086</td>
</tr>
<tr>
<td>2-factors: TA, CSE + IW+ IA+ IR</td>
<td>1028.424</td>
<td>229</td>
<td>0.662</td>
<td>0.786</td>
<td>0.806</td>
<td>0.109</td>
</tr>
<tr>
<td>1-factor: TA+ CSE+ IW+ IA+ IR</td>
<td>1500.988</td>
<td>230</td>
<td>0.606</td>
<td>0.661</td>
<td>0.692</td>
<td>0.137</td>
</tr>
</tbody>
</table>

Hypotheses Testing

Before testing the hypotheses, this study employed SEM to estimate the hypothesized model fit. According to the guidelines proposed by Hair et al. (2010), an acceptable model fit was obtained ($\chi^2 = 358.832$, df=284, TLI=0.980, CFI=0.982, RMSEA=0.030, SRMR=0.032). Then, this study followed the analytical procedure proposed by Baron and Kenny (1986) and adopted the Bootstrapping method to test the mediation effect.

First, the study employed the software SPSS27.0 to test the direct effects by performing hierarchical regression analysis. In the hypothesized model, TA was the independent variable, CSE was the mediator, and IB was the dependent variable. The three control variables were teachers’ gender, years of teaching experience, and education level. Table Five presents the regression analysis results. Model Three was the baseline model incorporating three control variables, indicating that these three variables significantly correlated with teachers’ IB. Compared with model Three, the independent variable (TA) was added to model Four, revealing that TA was
positively and significantly related to IB (g=0.559***, p<0.001). Therefore, H1 was supported. When the three demographic variables were controlled, Model Two indicated that TA positively correlated with CSE (g=0.562***, p<0.001), and Model Five indicated that CSE positively and significantly related to IB (g=0.515***, p<0.001). Therefore, both H2 and H3 were supported in this study.

Table 5. Regression analysis results

<table>
<thead>
<tr>
<th></th>
<th>Creative self-efficacy</th>
<th>Innovative Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.164*</td>
<td>0.081</td>
</tr>
<tr>
<td>Years of teaching experience</td>
<td>-0.082*</td>
<td>-0.045</td>
</tr>
<tr>
<td>Years of teaching experience</td>
<td>0.093</td>
<td>0.030</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.058</td>
<td>0.278</td>
</tr>
<tr>
<td>Teacher Autonomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Autonomy</td>
<td>0.562***</td>
<td>0.559***</td>
</tr>
<tr>
<td>Creative self-efficacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.058</td>
<td>0.278</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.048</td>
<td>0.268</td>
</tr>
<tr>
<td>AR²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AR²</td>
<td>5.987***</td>
<td>28.123***</td>
</tr>
</tbody>
</table>

Further, the current study adopted the 5,000 bootstrapping method to test the mediation effect of CSE on TA and IB. Table Six indicated that the direct impact of TA on IB was significant (Effect=0.356, SE=0.074, 95% CI [0.220, 0.511]). When CSE entered into the model, the effect of TA on IB was also significant (Indirect Effect=0.255, SE=0.057, 95% CI [0.158, 0.388]). Since the lower confidence interval and upper confidence rate did not include the value of zero, the mediation effect was considered significant, which supported H4. Figure One demonstrates the standard estimates of the finalized SEM result of TA as the predictor of IB via CSE.

Table 6. Mediation results

<table>
<thead>
<tr>
<th></th>
<th>Effect</th>
<th>S.E.</th>
<th>Z</th>
<th>p-value</th>
<th>BC Lower</th>
<th>BC Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>0.610</td>
<td>0.096</td>
<td>6.380</td>
<td>***</td>
<td>0.428</td>
<td>0.805</td>
</tr>
<tr>
<td>DIRECT: TA→IB</td>
<td>0.356</td>
<td>0.074</td>
<td>4.796</td>
<td>***</td>
<td>0.220</td>
<td>0.511</td>
</tr>
<tr>
<td>INDIRECT: TA→CSE→IB</td>
<td>0.255</td>
<td>0.057</td>
<td>4.474</td>
<td>***</td>
<td>0.158</td>
<td>0.388</td>
</tr>
</tbody>
</table>

Note. *** p < 0.001; Bootstrap 5000 times; 95% Confidence Interval; Control Variables added.
Discussion

As proposed in the introduction section, this study aimed to answer the two research questions: What are the interrelationships between teacher autonomy, creative self-efficacy, and innovative behavior among EFL teachers? Does creative self-efficacy mediate the relationship between teacher autonomy and innovative behavior among EFL teachers? With a sample of 297 Chinese EFL teachers, the regression analysis and SEM results indicated that teacher autonomy positively correlated with creative self-efficacy and innovative behavior. Further, creative self-efficacy partially mediated the relationship between teacher autonomy and innovative behavior. The following section presents detailed explanations and implications for future researchers and school leaders.

First, the regression analysis demonstrated that TA positively correlated with EFL teachers’ IB. This finding supported studies concluding that teacher autonomy predicts their innovativeness, while restriction of autonomy negatively influences their IB in institutions (Buske, 2018; Ozdemir & Cakalci, 2022). According to Han et al. (2021), EFL teachers would be motivated to make their teaching more innovative and effective if they had certain freedom and autonomy to select teaching resources, organize class activities, and evaluate students’ learning outcomes. With autonomous support and trust, teachers are inspired to renovate their teaching processes and work behavior. To sum up, providing EFL teachers with certain autonomy could create a supportive precondition to promote their innovative behavior in daily work.

In addition, the findings indicated that TA positively related to teachers’ CSE, and CSE played an important mediating role between TA and teachers’ IB. The results corresponded to empirical studies reporting that teachers’ perceived autonomy support significantly predicted their self-efficacy in completing given tasks (Azari & Amirian, 2020; Orakci & Durnali, 2022). In the EFL teaching context, when leaders empowered teachers with sufficient autonomy, their self-efficacy increased, which in turn improved their innovativeness and job satisfaction (Han et al., 2021). This finding extends the empowerment process theory to the education realm; supervisors’ sharing of organizational power and control with their subordinates strengthens personal self-efficacy, leading to their persistence in behavior to fulfill the established goals (Conger & Kanungo, 1988). Based on these explanations, both motivational factors shall be considered to inspire teachers’ innovativeness in the workplace.

Implications for Practice

Regarding the positive correlation between TA and IB, school leaders should be aware that the transformational leadership style, instead of the bureaucratic management system, might give teachers more autonomy to innovate their course design and teaching approaches. However, in EFL settings, Gao (2018) reported that language teachers’ exercise of autonomy was quite depressing due to bureaucratic control and critical censure emerging from educational reforms driven by the marketization of education. Therefore, school administrators are suggested to remove the burden of institutional constraints on teachers and create an innovation-friendly school culture to trigger teachers’ innovative behavior. When teachers acquire psychological safety, trust, and support from institutions, their innovative intentions may turn into innovative performance through actions, which will facilitate students’ learning outcomes and teaching effectiveness (Cai & Tang, 2021).

Further, school policymakers might provide instrumental support and resources to improve teachers’ creative self-efficacy and innovation competence. For example, advanced educational
facilities and teaching resources (i.e., online teaching platforms, smart classrooms, and AI tools) might motivate EFL teachers to innovate their instructional approaches. In addition, innovation-oriented seminars and training programs could facilitate teachers acquiring the latest instruction theory, educational technology, and innovation knowledge. With sufficient autonomous support and higher creative self-efficacy, teachers will be enthusiastic and motivated to invest their time and energy in making innovative changes.

Finally, it is worth noting that “the collective strength formed by deep teamwork can reduce the uncertainty associated with employees’ work, enhance their self-confidence and self-efficacy, and ultimately promote teacher’s agency” (Teng et al., 2024, p.4). Therefore, university EFL teachers might attend formal or informal learning communities, share innovative ideas, and work collaboratively with their co-workers. With peer support and the collective efforts of colleagues invested in innovativeness, individuals might be more committed and persistent in implementing innovative activities (Nguyen et al., 2021). In this way, teachers may gain a sense of job satisfaction and self-actualization, which will facilitate their career improvement and the healthy development of institutions.

**Limitations and Further Recommendations**

This study has brought innovative findings to the literature exploring teachers’ innovative behavior in Chinese EFL educational settings. However, it also has some limitations, which may provide recommendations for further research. First, this is a quantitative study based on participants’ self-reported responses; future research could introduce qualitative research methods to examine the results, providing a more detailed picture to explain how and why teacher autonomy and creative self-efficacy influence teachers’ innovative behavior. Second, the current study explicitly investigates the hypothesized relationship between teacher autonomy, creative self-efficacy, and innovative behavior. As teachers’ innovative behavior is a dynamic and complex process, future studies could add other variables to the current model, including both external and internal factors such as collective innovativeness culture, the principal’s leadership style, and teachers’ dispositions towards innovativeness. Third, this study is conducted on Chinese EFL university teachers; future research may expand to other disciplines and international contexts. In addition, it is also interesting to explore whether cultural differences and institutional systems might affect teachers’ perceived autonomy and innovative behavior.

**Conclusion**

This study investigates the mediation effect of creative self-efficacy between teacher autonomy and teachers’ innovative behavior, contributing to explaining how different impact mechanisms influence Chinese university EFL teachers’ innovative behavior. Given the findings of this study, new insights are provided to future researchers that teachers need certain autonomy to execute their professional practices. With autonomy and trust granted by administrators, teachers’ creative self-efficacy might be stimulated, which in turn promotes their innovative behavior in the workplace. Therefore, educational administrators shall remove the bureaucratic control of teachers and provide teachers with training programs to increase their innovative willingness and competence by creating a supportive environment. In addition, individual teachers need to obtain peer support from their colleagues to renovate course design and teaching approaches and inject their enthusiasm into making innovative changes in the workplace. In this way, they may grasp the opportunity to advance their career development and achieve higher
satisfaction and happiness in the workplace.

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