

## The Impact of Leader-Member Exchange on General Self-Efficacy: Evidence from China

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### ABSTRACT

Extant research has witnessed an increasing interest in understanding antecedents and outcomes of General Self-Efficacy (GSE); however, academic studies have not yet explored the role of Leader-Member Exchange (LMX) in giving rise to GSE. By drawing on Social Comparative Theory, the current study aims to examine the impact of LMX on GSE. The current study used a cross-sectional research design with survey methodology. Data were collected from 114 students in three universities in the eastern region of China. The findings indicated that LMX did not predict GSE,  $\beta = -.12$ ,  $t(112) = -1.26$ ,  $p = .21$ . To conclude, the current study might be essential for building the basics for comprehending how LMX affects GSE among university students in the eastern region of China.

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## INTRODUCTION

In recent years, researchers have become increasingly interested in self-efficacy of employees in organizations (Farley, 2020; Mata et al., 2021; Pressley & Ha, 2021).

One of the most fruitful areas of self-efficacy study has focused on general self-efficacy (GSE). According to a definition provided by Eden (2001, p. 73), GSE is defined as “one’s belief in one’s overall competence to effect requisite performances across a wide variety of achievement situations.” In other words, GSE emphasizes individuals’ strong and all-encompassing beliefs about their capacities to deal with hardship and stress in the face of new obstacles and demands (Volz et al., 2018). It should be noted, however, that there have been few attempts to establish a direct relationship between Leader-Member Exchange (LMX) and GSE. The current work seeks to uncover a novel antecedent of GSE by concentrating on how LMX influences GSE. The research question that guides the current study is: Does LMX predict GSE among university students in the eastern region of China? The remainder of this study is organized as follows. A brief review of the literature is followed by an explanation of the methodology used. The findings of the current study are then presented, followed by a discussion and a conclusion.

## LITERATURE REVIEW

### General Self-Efficacy

Factors found to be influencing GSE have been explored in several studies (Chen et al., 2019; Gourlay et al., 2022). For example, one study conducted by Gourlay et al. (2022) examined the trend impact of psychological processes on adolescents and young women in Kenya. The findings of their research showed that Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe (DREAMS) did not predict self-efficacy among a cohort of 1500 girls and young women aged between 13 and 22 in Kenyan settings (Gourlay et al., 2022). In another cross-sectional and correlational study, Chen et al. (2019) found that there was a positive relationship between Self-regulated learning ability, metacognitive ability, and GSE among college students in China.

Several studies have also recognized the critical role played by GSE in diminishing negative attitudes and behaviors. For example, according to Volz et al. (2018), patients from two German inpatient rehabilitation centers who believed in their GSE to deal with adversity in new and stressful situations were less likely to manifest depressive symptoms after stroke. In another study conducted by Li et al. (2022), patients who were 60 years or older and had higher overall self-efficacy were found to be less vulnerable to experiencing fragility, possibly because older adults were generally better able to adapt to stress and changes in life optimistically. Research conducted by Chen et al. (2019) has also shown that strong views about managing stress or overcoming obstacles in life were typically held by students who exhibited high levels of GSE when it came to creating learning objectives, choosing resources, and self-evaluation.

Given the significant influence that individuals' psychological states had on GSE (Chen et al., 2019; Gourlay et al., 2022), which in turn influenced a variety of attitudes and behaviors (Li et al., 2022; Volz et al., 2018), it follows that a large number of researchers have focused heavily on GSE's mediating role in organizational behavior studies (Cheng et al., 2020; Long et al., 2021; Stephanou & Tsoni, 2019). For example, in a cross-sectional study, Cheng et al. (2020) found that GSE mediated the relationship between the source of meaning in life and prosocial behaviors among 799 nursing students from three vocational colleges in China.

Although extant research has witnessed an increasing interest in understanding antecedents and outcomes of GSE as well as the role played by GSE as a mediator, few studies have reported the effect of leadership styles, in particular, the LMX on GSE. To explore this relationship, GSE was designated as the dependent variable in the current study to examine the impact of LMX on GSE among university students in the eastern region of China.

### **Leader-Member Exchange**

According to Northouse (2021), LMX refers to two types of vertical linkages that exist between a leader and their followers: the first type of vertical linkage is considered to be an in-group that is formed based on strong support and social connection, and the second type of linkage is considered to be an out-group that is established based on formal role responsibilities. Although several cross-sectional studies have examined the role of GSE as moderators and mediators, most of the extant research has been conducted to empirically and theoretically examine the impact of LMX on individuals' attitudes and behaviors (Mumtaz et al., 2022; Park et al., 2020; Tziner et al., 2020). For example, driven by the intrinsic tendency of internalized motivation, medical workers in China with higher scores in LMX would also have higher flow at work characterized by concentration and pleasure in intrinsic work motivation (Li et al., 2023). Likewise, motivated by the internal tendency to reciprocate, Israeli workers who were in-group members in their relationship with their leaders had been noted to be more active in completing tasks beyond the formal job description (Tziner et al., 2020). Further, according to Toscano (2022), when employees as in-group members in LMX relationships with their leaders feel well supported throughout the Covid-19 pandemic, they would perceive to have more trust and respect as well as deeper mutual bonding with their leaders, which could increase the satisfaction of their overall online work experience.

However, it is evident that academic studies, thus far, have not yet explored the role of LMX in giving rise to GSE. To address this gap in the literature, the current study aims to examine the influence of LMX on GSE. The researcher posits that when university students in the eastern region of China receive strong support and have social connections from their leaders, they are likely to form strong beliefs about their competency in handling difficult and stressful tasks in challenging situations.

## Hypothesis Development

The researcher provides the following rationale or theoretical reasoning for this proposition. Homans (1958) proposed the Social Exchange Theory based on psychological theories and economic principles to explain the social structure of small groups in which people gain profits during interaction. According to the Social Exchange Theory (Homans, 1958), individuals' interdependences are deemed as the defining feature of social exchange, and individuals frequently engage in exchanges to obtain favorable outcomes for themselves (Cropanzano & Mitchell, 2005). If good relationships can be established between a leader and their followers through the formation of in-group members ties, then subordinates may get more tangible and intangible resources from leaders, such as job promotion and emotional support. These resources and supports can help assist followers in developing more positive psychological states, allowing them to better execute the work tasks assigned by the leaders.

The researcher's proposition is consistent with the previous study conducted by Heijden and Spurk (2019), which empirically demonstrated that academic staff in high-quality LMX relationships would reciprocate to their supervisors by positively responding to hard work through seeking novel working strategies. The findings of the study conducted by Zhang et al. (2023) also showed that because followers with low-quality LMX believed they could not receive the same level of benefits from their leaders as followers with high-quality LMX, their psychological feelings would not only trigger negative emotional reactions toward their leaders, but increase their willingness to leave the organization. Additionally, it was also noted that followers with high-quality LMX are more likely to feel that they can acquire significant work resources and higher status in organizations than followers with low-quality LMX (Liang et al., 2022). These perceptions about job resources and higher prestige in organizations can lead high-quality LMX followers to perceive that they encounter less environmental pressure at work (Liang et al., 2022). As a consequence, the researcher thus proposes the following hypothesis:

H1: LMX positively predicts GSE.

## METHODOLOGY

### Population and Sample

The current study used a non-experimental quantitative design with survey methodology. A convenient sampling sample method was utilized. The population for the current study was university students in the eastern region of China. Data were collected from 114 students in three universities in the eastern part of China. Based on the expected medium effect size of .15, power of .80, and a significance level of  $\alpha = .05$  (Cohen, 1992), a sample size of 114 is sufficient to conduct a simple regression analysis for the current study.

### Measure

The researcher created Chinese versions of measures for LMX by following Brislin's (1980) translation-back-translation procedure. To measure LMX, the LMX Scale developed by Liden and Graen (1995), was employed. The

LMX scale has one dimension with seven items. The LMX utilizes a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The score of the LMX scale is computed by summing responses across items and ranges from 7 to 35. The mean or average score of the LMX Scale is calculated by dividing the score of the LMX Scale by seven, which is the number of items on the AL Scale. Previous research showed that the LMX scale had acceptable validity and reliability. For the current study, Cronbach’s alpha for the LMX scale was .76, indicating a high degree of internal consistency among the items on the scale (Yockey, 2018, p. 106). The means of the individual items ranged from 3.23 to 3.60, with a mean on the total scale of 23.20 (SD = 4.73). Overall, the participants’ responses on the scale indicated that they possessed a moderate degree of LMX. The mean and standard deviation of the items of the LMX scale are provided in Table 1.

Table 1. Reliability Statistics for the LMX Scale

| Variable  | Dimension | Item | Mean | Std.Deviation | N   | Cronbach’s Alpha |
|---|-----------|------|------|---------------|-----|------------------|
| LMX   | -         | LMX1 | 3.08 | 1.11          | 114 | .76              |
|   |           | LMX2 | 3.32 | 1.00          | 114 |                  |
|   |           | LMX3 | 3.23 | 1.05          | 114 |                  |
|   |           | LMX4 | 3.32 | 1.02          | 114 |                  |
|   |           | LMX5 | 3.60 | 1.00          | 114 |                  |
|   |           | LMX6 | 3.35 | 1.09          | 114 |                  |
|   |           | LMX7 | 3.40 | 1.07          | 114 |                  |
| Scale Statistics:   |           |      |      |               |     |                  |
| Mean = 23.30, Variance = 22.35, Std. Deviation = 4.73, N of items = 7 |           |      |      |               |     |                  |

*Note.* LMX = Leader-Member Exchange.

The researcher created Chinese versions of measures for GSE by following Brislin’s (1980) translation-back-translation procedure. To measure GSE, the GSE Scale developed by Schwarzer and Jerusalem(1995), was employed. The GSE scale has one dimension with 10 items. The GSE utilizes a 4-point Likert scale ranging from 1 = not at all true to 5 = exactly true. The score of the GSE scale is computed by summing responses across items and ranges from 1 to 10. The mean or average score of the GSE Scale is calculated by dividing the score of the GSE Scale by 10, which is the number of items on the GSE Scale. Previous research showed that the GSE scale had acceptable validity and reliability. For the current study, Cronbach’s alpha for the GSE scale was .78, indicating a high degree of internal consistency among the items on the scale (Yockey, 2018, p. 106). The means of the individual items ranged from 3.02 to 3.38, with a mean on the total scale of 31.45 (SD = 7.30). Overall, the participants’ responses on the scale indicated that they possessed a high degree of GSE. The mean and standard deviation of the items of the GSE scale are provided in Table 2.

Table 2 Reliability Statistics for the GSE Scale

| Variable   | Dimension | Item  | Mean | Std.Deviation | N   | Cronbach's Alpha |
|--|-----------|-------|------|---------------|-----|------------------|
| GSE  | -         | GSE1  | 3.10 | 1.36          | 114 | .78              |
|  |           | GSE2  | 3.18 | 1.26          | 114 |                  |
|  |           | GSE3  | 3.38 | 1.27          | 114 |                  |
|  |           | GSE4  | 3.14 | 1.29          | 114 |                  |
|  |           | GSE5  | 3.02 | 1.14          | 114 |                  |
|  |           | GSE6  | 3.25 | 1.16          | 114 |                  |
|  |           | GSE7  | 3.22 | 1.15          | 114 |                  |
|  |           | GSE8  | 3.03 | 1.35          | 114 |                  |
|  |           | GSE9  | 3.03 | 1.37          | 114 |                  |
|  |           | GSE10 | 3.12 | 1.22          | 114 |                  |
| Scale Statistics:  |           |       |      |               |     |                  |
| Mean = 31.45 , Variance = 53.24, Std.Deviation = 7.30, N of items = 10 |           |       |      |               |     |                  |

*Note.* GSE = General Self-Efficacy.

## RESEARCH RESULT

Table 1 displays the valid observations for the demographic variables. Specifically, with regard to the frequency for each category of Gender, 49(43%) males and 65(57%) females participated in the current study.

With regard to the frequency for each category of Age Group, the majority of the participants who took part in the current study mostly involved 34(29.8%) students who were between 18 and 20 years old, 57(50%) students who were between 21 and 23 years old, and 23(20.2%) students who were between 24 and 26 years old.

With regard to the frequency for each category of Level of Education, there are 89(78.1%) students studying at undergraduate school and 25(21.9%) students studying at graduate school took part in the current study.

In regard to the frequency for each category of Field of Study, the majority of students were studying in the field of Economics & Management and the field of Culture, Art, & Humanity, with 29(25.4%) students and 63(55.3%) students, respectively. Additionally, 22(19.3%) students were studying in the field of Science & Technology.

Table 3. Frequencies for Demographic Variable: Gender, Age, LoE, FoS

|        |                      | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|----------------------|-----------|---------|---------------|--------------------|
| Gender | Male                 | 49        | 43      | 43            | 43                 |
|        | Female               | 65        | 57      | 57            | 100                |
|        | Total                | 114       | 100     | 100           |                    |
| Age    | 18-20 years old      | 34        | 29.8    | 29.8          | 29.8               |
|        | 21-23 years old      | 57        | 50      | 50            | 79.8               |
|        | 24-26 years old      | 23        | 20.2    | 20.2          | 100                |
|        | Total                | 114       | 100     | 100           |                    |
| LoE    | Undergraduate School | 89        | 78.1    | 78.1          | 78.1               |
|        | Graduate School      | 25        | 21.9    | 21.9          | 100                |
|        | Total                | 114       | 100     | 100           |                    |
| FoS    | EM                   | 29        | 25.4    | 25.4          | 25.4               |
|        | CAH                  | 63        | 55.3    | 55.3          | 80.7               |
|        | ST                   | 22        | 19.3    | 19.3          | 100                |
|        | Total                | 114       | 100     | 100           |                    |

Note. LoE = Level of Education; FoS = Field of Study; EM = Economics and Management; CAH = Culture, Art, and Humanity, ST = Science and Technology.

Table 4 presents the sample size (N), minimum and maximum, standard deviation, skewness, and kurtosis for the three items of the LMX. The means for each of the items on the scale ranged from 3.08 to 3.60. Because the skewness statistics of items of the LMX scale were between -0.14 and 0.19, which is less than two (West et al., 1995); and the kurtosis statistic of each item is between -0.94 and -0.58, which is less than seven (West et al., 1995), the data in the sample can be considered to have a normal distribution in the current study.

Table 4. Descriptive Statistics for items of the LMX Scale

|         | N         | Minimum   | Maximum   | Mean      | Std. Deviation | Skewness  | Kurtosis  |
|---------|-----------|-----------|-----------|-----------|----------------|-----------|-----------|
|         | Statistic | Statistic | Statistic | Statistic | Statistic      | Statistic | Statistic |
| LMX1    | 114       | 1         | 5         | 3.08      | 1.11           | -0.04     | -0.58     |
| LMX2    | 114       | 1         | 5         | 3.32      | 1.00           | 0.03      | -0.69     |
| LMX3    | 114       | 1         | 5         | 3.23      | 1.05           | 0.19      | -0.87     |
| LMX4    | 114       | 1         | 5         | 3.32      | 1.02           | 0.13      | -0.90     |
| LMX5    | 114       | 1         | 5         | 3.60      | 1.00           | -0.14     | -0.81     |
| LMX6    | 114       | 1         | 5         | 3.35      | 1.09           | 0.06      | -0.85     |
| LMX7    | 114       | 1         | 5         | 3.40      | 1.07           | -0.03     | -0.94     |
| Valid N | 114       |           |           |           |                |           |           |

Note. LMX = Leader-Member Exchange.

Table 5 presents the sample size (N), minimum and maximum, standard deviation, skewness, and kurtosis for the three items of the GSE. The means for each of the items on the scale ranged from 3.02 to 3.38. Because the skewness statistics of items of the LMX scale were between -0.25 and 0.08, which is less than two (West et al., 1995); and the kurtosis statistic of each item is between -1.27 and -0.87, which is less than seven (West et al., 1995), the data in the sample can be considered to have a normal distribution in the current study.

Table 5. Descriptive Statistics for items of the GSE Scale

|         | N   | Minimum | Maximum | Mean | Std. Deviation | Skewness  |            | Kurtosis  |            |
|---------|-----|---------|---------|------|----------------|-----------|------------|-----------|------------|
|         |     |         |         |      |                | Statistic | Std. Error | Statistic | Std. Error |
| GSE1    | 114 | 1       | 5       | 3.10 | 1.36           | -0.09     | 0.23       | -1.19     | 0.45       |
| GSE2    | 114 | 1       | 5       | 3.18 | 1.26           | -0.20     | 0.23       | -1.02     | 0.45       |
| GSE3    | 114 | 1       | 5       | 3.38 | 1.27           | -0.25     | 0.23       | -0.97     | 0.45       |
| GSE4    | 114 | 1       | 5       | 3.14 | 1.29           | -0.01     | 0.23       | -1.05     | 0.45       |
| GSE5    | 114 | 1       | 5       | 3.02 | 1.14           | 0.07      | 0.23       | -0.91     | 0.45       |
| GSE6    | 114 | 1       | 5       | 3.25 | 1.16           | -0.19     | 0.23       | -0.87     | 0.45       |
| GSE7    | 114 | 1       | 5       | 3.22 | 1.15           | -0.16     | 0.23       | -0.83     | 0.45       |
| GSE8    | 114 | 1       | 5       | 3.03 | 1.35           | -0.09     | 0.23       | -1.20     | 0.45       |
| GSE9    | 114 | 1       | 5       | 3.03 | 1.37           | 0.08      | 0.23       | -1.27     | 0.45       |
| GSE10   | 114 | 1       | 5       | 3.12 | 1.22           | -0.21     | 0.23       | -0.98     | 0.45       |
| Valid N | 114 |         |         |      |                |           |            |           |            |

Note. GSE = General Self-Efficacy.

Table 7 displays the results of two independent samples t-tests. The results showed that there was not a statistically significant difference in LMX scores between male students and female students. Female students ( $M = 3.28$ ,  $SD = 0.65$ ) had the same score of LMX as male students ( $M = 3.37$ ,  $SD = 0.70$ ),  $t(112) = .70$ ,  $p = .48$ ,  $d = 0.13$ .

As shown in Table 7, there was not a statistically significant difference in GSE scores between male students and female students. Female students ( $M = 3.00$ ,  $SD = 0.79$ ) had the same score of GSE as male students ( $M = 3.25$ ,  $SD = 0.67$ ),  $t(112) = 1.83$ ,  $p = .07$ ,  $d = 0.35$ .

Table 7.  
 Results of the Independent-Samples t Tests with LMX and GSE as the Dependent Variables

|     | Gender | N  | Mean | Std. Deviation | t    | df  | p   | d    |
|-----|--------|----|------|----------------|------|-----|-----|------|
| LMX | Male   | 49 | 3.28 | 0.65           | 0.70 | 112 | .48 | 0.13 |
|     | Female | 65 | 3.37 | 0.70           |      |     |     |      |
| GSE | Male   | 49 | 3.00 | 0.79           | 1.83 | 112 | .07 | 0.35 |
|     | Female | 65 | 3.25 | 0.67           |      |     |     |      |

Note. LMX = Leader-Member Exchange. GSE = General Self-Efficacy.

A Kruskal-Wallis test was conducted to determine if there were significant differences in LMX among students of different Age Groups. The non-parametric analysis was performed because the variances were not equal for the three Age Groups.

As shown in Table 9, Table 10, Table 11, and Figure 1, the Kruskal-Wallis test revealed that there were no statistically significant differences in LMX scores among university students of different Age Groups (18-20 years old, n=44; 21-23 years old, n=22; 24-26 years old, n=29),  $\chi^2(2, n=114)=2.10, p = .35$ . Age Group (18-20 years old) recorded the same median score (MD = 3.36) as Age Group (21-23 years old) and Age Group(24-26 years old), which recorded median values of 3.29 and 3.57, respectively.

Table 8. Report of Statistics for LMX

|     | AgeG            | Median | N    |
|-----|-----------------|--------|------|
| LMX | 18-20 years old | 44     | 3.36 |
|     | 21-23 years old | 22     | 3.29 |
|     | 24-26 years old | 29     | 3.57 |
|     | Total           | 114    | 3.43 |

Table 9. Results of the Kruskal-Wallis Test with AL as the Dependent Variable

Note. AL = Altruistic Calling; AgeG = Age Group.

| Null Hypothesis  | Test                                    | <i>p</i> | Decision                   |
|--|---|----------|----------------------------|
| The distribution of LMX is the same across categories of AgeG. | Independent-Samples Kruskal-Wallis Test | .35      | Retain the Null Hypothesis |
| Total N: 114   |   |          |                            |
| Test Statistic: 2.10   |   |          |                            |
| df: 2  |   |          |                            |

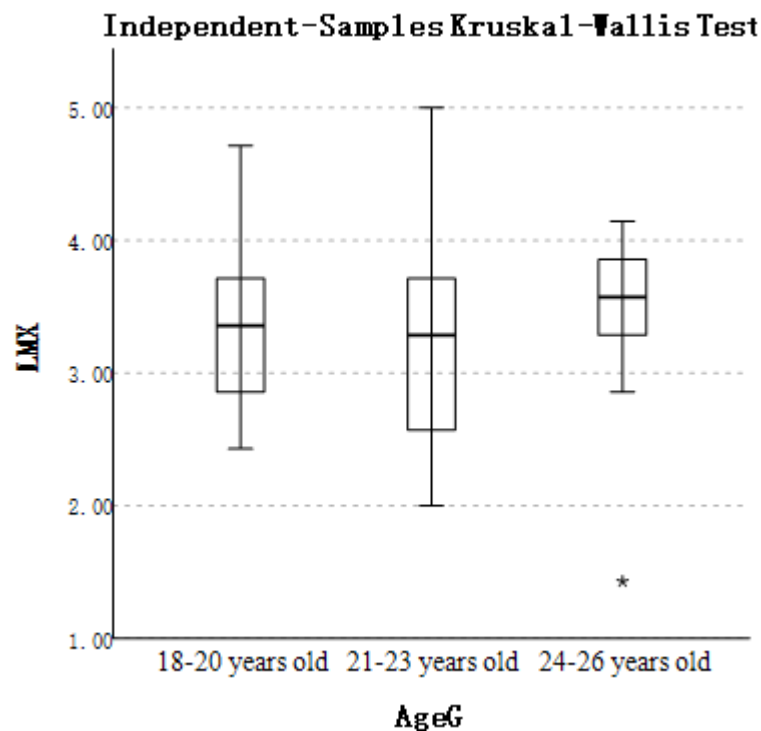


Figure 1. Results of the Independent-Samples Kruskal-Wallis Test with AL as the Dependent Variable

Note. AL = Altruistic Calling; AgeG = Age Group.

Table 8 and Table 9 display the results for the one-way between subjects ANOVA. The results showed that the scores of GSE did not vary based on Age Group,  $F(2, 111) = 0.68, p = .51, \eta^2 = .01$ .

Table 10  
Descriptives for GSE

|     | AgeG            | N   | Mean | Std. Deviation |
|-----|-----------------|-----|------|----------------|
| GSE | 18-20 years old | 34  | 3.27 | 0.59           |
|     | 21-23 years old | 57  | 3.09 | 0.80           |
|     | 24-26 years old | 23  | 3.09 | 0.73           |
|     | Total           | 114 | 3.14 | 0.73           |

Note. LMX = Leader-Member Exchange. AgeG = Age Group.

Table 11  
Results of the One-Way between Subjects ANOVA with GSE as the Dependent Variables

|     |                | Sum of Squares | df  | Mean Square | F    | <i>p</i> |
|-----|----------------|----------------|-----|-------------|------|----------|
|     | Between Groups | 0.73           | 2   | 0.37        | 0.68 | .51      |
| GSE | Within Groups  | 59.43          | 111 | 0.54        |      |          |
|     | Total          | 60.16          | 113 |             |      |          |

*Note.* GSE = General Self-Efficacy.

Table 10 displays the results of two independent samples t-tests. The results showed that there is not a statistically significant difference in LMX scores between students from undergraduate schools and students from graduate schools. Students from undergraduate schools ( $M = 3.30$ ,  $SD = 0.68$ ) had the same score of LMX as students from graduate schools ( $M = 3.42$ ,  $SD = 0.65$ ),  $t(112) = 0.79$ ,  $p = .43$ ,  $d = .18$ .

The results also showed that there was not a statistically significant difference in GSE scores between students from undergraduate schools and students from graduate schools. Students from undergraduate schools ( $M = 3.17$ ,  $SD = 0.74$ ) had the same score of LMX as students from graduate schools ( $M = 3.07$ ,  $SD = 0.72$ ),  $t(112) = .59$ ,  $p = .55$ ,  $d = .14$ .

Table 12  
Results of the Independent-Samples t Tests with LMX and GSE as the Dependent Variables

|     |                      | LoE | N  | Mean | Std. Deviation | t    | df  | <i>p</i> | d   |
|-----|----------------------|-----|----|------|----------------|------|-----|----------|-----|
| LMX | Undergraduate School |     | 89 | 3.30 | 0.68           | 0.79 | 112 | .43      | .18 |
|     | Graduate School      |     | 25 | 3.42 | 0.65           |      |     |          |     |
| GSE | Undergraduate School |     | 89 | 3.17 | 0.74           | 0.59 | 112 | .55      | .14 |
|     | Graduate School      |     | 25 | 3.07 | 0.72           |      |     |          |     |

*Note.* LMX = Leader-Member Exchange; GSE = General Self-Efficacy; LoE = Level of Education.

Table 11 and Table 12 display the results for the one-way between subjects ANOVA. The results showed that the LMX scores did not vary based on Field of Study,  $F(2, 111) = 0.51$ ,  $p = .61$ ,  $\eta^2 = .01$ . The GSE scores varied based on Field of Study,  $F(2, 111) = 3.76$ ,  $p = .03$ ,  $\eta^2 = .06$ . This is a medium effect size (Cohen, 1988, p. 286) and indicates that Field of Study accounted for 6% of the variance in GSE. LSD's post hoc procedure indicated that students from the study field of Science & Technology scored significantly lower than those from the fields of study from Economics & Management and Culture, Art, & Humanity.

Table 13  
Descriptives for LMX and GSE

|     |       | N   | Mean | Std. Deviation | Post Hoc Test LSD |
|-----|-------|-----|------|----------------|-------------------|
| LMX | EM    | 29  | 3.42 | 0.57           |                   |
|     | CAH   | 63  | 3.27 | 0.76           |                   |
|     | ST    | 22  | 3.36 | 0.52           |                   |
|     | Total | 114 | 3.33 | 0.68           |                   |
| GSE | EM    | 29  | 3.32 | 0.61           | ST<EM             |
|     | CAH   | 63  | 3.19 | 0.75           | ST<CAH            |
|     | ST    | 22  | 2.79 | 0.72           | ST<EM;<br>ST<CAH  |
|     | Total | 114 | 3.14 | 0.73           |                   |

*Note.* LMX = Leader-Member Exchange; GSE = General Self-Efficacy;  
EM = Economics and Management; CAH = Culture, Art, Humanity;  
ST = Science and Technology

Table 14  
Results of the One-Way between Subjects ANOVA with LMX and GSE as the  
Dependent Variables

|                |               | Sum of Squares | df  | Mean Square | F    | p   | $\eta^2$ |
|----------------|---------------|----------------|-----|-------------|------|-----|----------|
| Between Groups |               | 0.47           | 2   | 0.23        | 0.51 | .61 | .01      |
| LMX            | Within Groups | 51.08          | 111 | 0.46        |      |     |          |
|                | Total         | 51.55          | 113 |             |      |     |          |
| Between Groups |               | 3.82           | 2   | 1.91        | 3.76 | .03 | .06      |
| GSE            | Within Groups | 56.34          | 111 | 0.51        |      |     |          |
|                | Total         | 60.16          | 113 |             |      |     |          |

*Note.* LMX = Leader-Member Exchange; GSE = General Self-Efficacy.

Table 13 displays the results of the Pearson correlation analysis. The results showed that there is no relationship between LMX and GSE,  $r(112) = -.12$ ,  $p = .21$ .

Table 15  
 Results of the Pearson Correlations between PM and OBSE

|     |                     | LMX  | GSE  |
|-----|---------------------|------|------|
| LMX | Pearson Correlation | 1    | -.12 |
|     | Sig. (2-tailed)     |      | .21  |
|     | N                   | 114  | 114  |
| GSE | Pearson Correlation | -.12 | 1    |
|     | Sig. (2-tailed)     | .21  |      |
|     | N                   | 114  | 114  |

Note. LMX = Leader-Member Exchange; GSE = General Self-Efficacy.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Preliminary analyses were performed to ensure no violation of the assumption of normality (Yockey, 2018). As shown in Table 4 and Table 5, because the absolute value of the skewness statistic was less than two and the absolute value of the kurtosis statistic was less than 7 for both LMX and GSE, the scores for both LMX and GSE were treated as being normally distributed (West et al., 1995). As shown in Table 14, a regression analysis was conducted with LMX as the independent variable and GSE as the dependent variable. The researcher rejected H1 that LMX predicted GSE. LMX was not a significant predictor of GSE,  $\beta = -.12$ ,  $t(112) = -1.26$ ,  $p = .21$ .

Table 14.  
 Results of the Simple Regression Analysis with GSE as the Dependent Variable

|                         | GSE   |           |         |       |     |
|-------------------------|-------|-----------|---------|-------|-----|
|                         | B     | Std.Error | $\beta$ | t     | p   |
| (Contant)               | 3.57  | .34       |         | 10.37 | .00 |
| LMX                     | -0.13 | .10       | -.12    | -1.26 | .21 |
| R <sup>2</sup>          | .01   |           |         |       |     |
| Adjusted R <sup>2</sup> | .01   |           |         |       |     |
| F                       | 1.58  |           |         |       |     |
| df                      | .21   |           |         |       |     |

Note. LMX = Leader-Member Exchange; GSE = General Self-Efficacy.

## DISCUSSION

The results of the statistical analyses for the demographic variable Gender demonstrated that there was no significant difference in LMX between male and female students. This finding suggests that both male and female students perceive that there is no distinction in how professors treat university students. In other words, professors not only provide equal resources for male and female students to fulfill their learning objectives, but they build equal levels of mutual trust and respect with male and female students. The results of the statistical analyses for the demographic variable Gender also demonstrated that

there was no significant difference in GSE between male and female students. This finding suggests that both male and female students have the same level of confidence in coping with difficulties and challenges in their studies at university.

Moreover, the results of the statistical analyses for the demographic variable Level of Education demonstrated that there were no significant differences in LMX and GSE between students from graduate schools and those from undergraduate schools. The results of the statistical analyses for the demographic variable Age Group indicated that there were no significant differences in LMX and GSE among students who were 18-20 years old, 21-23 years old, and 24-26 years old. These findings could be explained by the fact that there isn't a big age gap between graduate and undergraduate students. In particular, because both graduate students and undergraduate students can be regarded as youngsters, there is no obvious difference in the way the professors treat students from undergraduate schools and graduate schools; therefore, there is no difference regarding the impact of LMX on their GSE.

Furthermore, the results of the statistical analyses for the demographic variable Field of Study showed that there was no significant difference in LMX among students from the fields of Science & Technology, Economics & Management, and Culture, Art, & Humanity. These results showed that all students perceive there is no difference in the way professors treat them regardless of which Fields of Study they are studying. However, the results indicated that there were significant differences in GSE among students from the fields of Science & Technology, Economics & Management, and Culture, Art, & Humanity. The results of the Post hoc test using LSD reported that students from the study field of Science & Technology feel less confident in coping with obstacles and challenges in learning than students in the study fields of Economics & Management and Culture, Art, & Humanity. These results may be explained by the consideration that the study field of Science & Technology requires students to have a great level of comprehension, logical thinking, and calculating capacities. Therefore, students studying in the field of Science & Technology are likely to experience increased study pressure and reduced self-efficacy.

Finally, the results revealed that there was no relationship between LMX and GSE. The research question examined whether LMX can predict GSE among university students in the eastern region of China. Based on the simple linear regression analysis results, the researcher rejects H1, suggesting that LMX does not predict GSE. This finding contradicts the empirical study conducted by Zhang et al. (2023), which suggests that because followers with high-quality LMX receive more benefits from their leaders than those with low-quality LMX, it causes followers with high-quality LMX to have positive emotional responses toward their leaders. This finding also contradicts the research conducted by Liang et al. (2022), which suggests that because followers with high-quality LMX receive more benefits from their leaders, it causes followers with high-quality LMX to believe that they would face less work pressure in the workplace. The reason for this is not completely clear, although

it could be due to the convenient sampling technique, which may distort the results of the current study (McMillan, 2016, p. 123). In this regard, it is recommended that researchers in the future utilize a random sampling technique to “maximize the sample’s representatives by eliminating bias” (Vogt, 2007). Given that this unexpected finding needs to be explained and viewed with caution, it is nevertheless advised that, according to Social comparative theory, educators cultivate close social bonds with their students in order to give them confidence in their ability to handle stress and challenges.

## CONCLUSIONS AND RECOMMENDATIONS

The current study examined how LMX affected GSE by drawing on Social Exchange Theory. The simple regression analysis showed that LMX did not predict GSE using a .05 level of significance. However, given the bias introduced by the convenient sampling approach in the current study, this finding should be viewed with caution. The current study may be crucial in laying the basis for understanding how LMX impacts GSE. In this regard, the current study is a significant first step toward investigating how LMX affects GSE among university students in the eastern region of China.

## ADVANCED RESEARCH

Penelitian ini masih memiliki keterbatasan maka perlu dilakukan penelitian lanjutan terkait topik “The Impact of Leader-Member Exchange on General Self-Efficacy: Evidence from China” to perfect this research, as well as increase insight for readers.

## REFERENCES

- Brislin, R. W. (1980). Translation and content analysis of oral and written materials. *Methodology*, 389-444.
- Chen, J. H., Björkman, A., Zou, J. H., & Engström, M. (2019). Self-regulated learning ability, metacognitive ability, and general self-efficacy in a sample of nursing students: A cross-sectional and correlational study. *Nurse Education in Practice*, 37, 15-21. <https://doi.org/10.1016/j.nepr.2019.04.014>
- Cheng, L., Ye, Y., Zhong, Z., Zhang, F., Hu, X., Cui, R., & Chen, Q. (2020). Mediating effects of general self-efficacy on the relationship between the source of meaning in life and prosocial behaviours in vocational college nursing students: A cross-sectional study. *Plos one*, 15(12), e0243796. <https://doi.org/10.1371/journal.pone.0243796>
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Science* (2nd ed.). Lawrence Erlbaum Associates.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management*, 31(6), 874-900. <https://doi.org/10.1177/0149206305279602>

- Eden, D. (2001). Means efficacy: External sources of general and specific subjective efficacy. In M.Erez,U.Kleinbeck, & H. Thierry (Eds.), *Work motivation in the context of a globalizing economy* (pp. 78–87). Hillsdale, NJ: Lawrence Erlbaum.
- Farley, H. (2020). Promoting self-efficacy in patients with chronic disease beyond traditional education: A literature review. *Nursing open*, 7(1), 30-41. <https://doi.org/10.1002/nop2.382>
- Gourlay, A., Floyd, S., Magut, F., Mulwa, S., Mthiyane, N., Wambiya, E., ... & Birdthistle, I. (2022). Impact of the DREAMS Partnership on social support and general self-efficacy among adolescent girls and young women: causal analysis of population-based cohorts in Kenya and South Africa. *BMJ Global Health*, 7(3), e006965. <https://doi.org/10.1136/bmjgh-2021-006965>
- Homans, G. C. (1958). Social behavior as exchange. *American journal of sociology*, 63(6), 597-606.
- Li, X., Yang, K., An, Y., Liu, M., Yan, C., & Huang, R. (2022). General self-efficacy and frailty in hospitalized older patients: The mediating effect of loneliness. *Geriatric Nursing*, 48, 308-312. <https://doi.org/10.1016/j.gerinurse.2022.10.019>
- Liang, Y., Liu, Y., Park, Y., & Wang, L. (2022). Treat me better, but is it really better? Applying a resource perspective to understanding leader–member exchange (LMX), LMX differentiation, and work stress. *Journal of occupational health psychology*, 27(2),1-17. <https://doi.org/10.1037/ocp0000303>
- Liden, R. C., & Graen, G. (1980). Generalizability of the vertical dyad linkage model of leadership. *Academy of Management journal*, 23(3), 451-465. <https://doi.org/10.5465/255511>
- Long, Q., Guo, J., Zhong, Q., Jiang, S., Wiley, J., & Chen, J. L. (2021). General self-efficacy and social support as mediators of the association between perceived stress and quality of life among rural women with previous gestational diabetes mellitus. *Journal of Clinical Nursing*, 30(7-8), 1026-1036. <https://doi.org/10.1111/jocn.15648>
- Mata, Á. N. D. S., de Azevedo, K. P. M., Braga, L. P., de Medeiros, G. C. B. S., de Oliveira Segundo, V. H., Bezerra, I. N. M., ... & Piuvezam, G. (2021). Training in communication skills for self-efficacy of health professionals: a systematic review. *Human Resources for Health*, 19(1), 1-9. <https://doi.org/10.1186/s12960-021-00574-3>
- McMillan, J. H. (2016). *Educational research: Fundamentals for the consumer* (7th ed.). Pearson.
- Mumtaz, S., & Rowley, C. (2020). The relationship between leader–member exchange and employee outcomes: review of past themes and future

- potential. *Management Review Quarterly*, 70, 165-189.  
<https://doi.org/10.1007/s11301-019-00163-8>
- Northouse, P. G. (2021). *Leadership: Theory and practice*. Sage publications.
- Park, H., Park, H., & Liden, R. C. (2022). Leader-member exchange differentiation and employee performance: A political perspective. *Journal of Organizational Behavior*, 43(6), 1121-1135.  
<https://doi.org/10.1002/job.2611>
- Pressley, T., & Ha, C. (2021). Teaching during a pandemic: United States teachers' self-efficacy during COVID-19. *Teaching and Teacher Education*, 106, 103465. <https://doi.org/10.1016/j.tate.2021.103465>
- Stephanou, G., & Tsoni, F. (2019). Effects of metacognition on performance in mathematics and language-multiple mediation of hope and general self-efficacy. *International Journal of Psychological Studies*, 11(4), 30-52.  
<https://doi.org/10.5539/ijps.v11n4p30>
- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor: NFER-NELSON.
- Toscano, F., Zappalà, S., & Galanti, T. (2022). Is a good boss always a plus? LMX, family-work conflict, and remote working satisfaction during the Covid-19 pandemic. *Social Sciences*, 11(6), 248, 1-12.  
<https://doi.org/10.3390/socsci11060248>
- Tziner, A., Shkoler, O., & Fein, E. C. (2020). Examining the effects of cultural value orientations, emotional intelligence, and motivational orientations: how do LMX mediation and gender-based moderation make a difference?. *Frontiers in Psychology*, 11, 502903.  
<https://doi.org/10.3389/fpsyg.2020.502903>
- Van der Heijden, B., & Spurk, D. (2019). Moderating role of LMX and proactive co\*\* in the relationship between learning value of the job and employability enhancement among academic staff employees. *Career Development International*, 24(2), 163-186. <https://doi.org/10.1108/CDI-09-2018-0246>
- Vogt, W. P. (2007). *Quantitative research methods for professionals*. Allyn & Bacon.
- Volz, M., Voelkle, M. C., & Werheid, K. (2019). General self-efficacy as a driving factor of post-stroke depression: A longitudinal study. *Neuropsychological rehabilitation*, 29(9), 1426-1438.  
<https://doi.org/10.1080/09602011.2017.1418392>
- Zhang, X., Liu, L., & Ning, J. (2023). The Mediating Effect of General Self-

Efficacy Between Occupational Stress and Negative Emotion Among Psychiatric Nurses. *Journal of Psychosocial Nursing and Mental Health Services*, 61(3), 33-39. <https://doi.org/10.3928/02793695-20220809-02>