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REVIEW ARTICLE

The Relationship Between Transformational Leadership and Teacher Self-efficacy in Terms of National Culture

Metin Kaya **Mehmet Koçyiğit**

Background/purpose – The purpose of this study is to examine the relationship between transformational leadership and teacher self-efficacy in terms of cultural values.

Materials/methods – Articles indexed in the Web of Science, Scopus, and ERIC databases between 2008 and 2021 were included in a meta-analysis. The dataset included 25 articles sourced from 15 countries. The random-effects model was used as a statistical model in the meta-analysis.

Results – The study revealed a weak relationship between transformational leadership and teacher self-efficacy (*ES* = .28). Additionally, some dimensions of national cultures were found to be moderators in the relationship between transformational leadership and teacher self-efficacy. This relationship is predicted positively by the power distance orientation of cultures and negatively predicted by individualism and indulgence orientation.

Conclusion – There is a weak relationship between transformational leadership and teacher self-efficacy.

Keywords – Transformational leadership, teacher self-efficacy, national culture, meta-analysis.

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1. INTRODUCTION

Empirical studies on the relationship between transformational leadership and teacher behaviors have increasingly gained prominence. Transformational leaders aim at realizing the vision and mission of their schools, and aim to transform the values, ideals, beliefs, and capabilities of their teachers (Pieterse et al., 2010). The improvements in teachers' behaviors are echoed in student achievement (Brophy, 1986, 1988; Panayiotou et al., 2014). In addition, the literature suggests that another significant factor affecting student achievement is teachers' self-efficacy beliefs (Tai et al., 2012). Therefore, it is considered essential to examine the relationship between school leaders' transformational leadership behaviors and teachers' self-efficacy.

This study aimed to examine the relationship between transformational leadership and teacher self-efficacy in terms of national cultures. Accordingly, the research questions are as follows.

RQ1. Is there a relationship between transformational leadership and teacher self-efficacy?

RQ2. Does the relationship between transformational leadership and teacher self-efficacy differ in terms of moderator variables (leadership scale type, self-efficacy scale type, school level, and publication year)?

RQ3. Do factors of national culture predict the relationship between transformational leadership and teacher self-efficacy?

2. LITERATURE REVIEW

Leadership research has revealed that transformational leadership is linked to culture (Dickson et al., 2003; Leong & Fischer 2011). Besides, Dilekli and Tezci (2020) and Yada et al. (2019) demonstrated that a relationship exists between teachers' self-efficacy levels and culture. However, there is inconsistency among studies in the literature that have examined the relationship between transformational leadership and teacher self-efficacy. For example, Mehdinezhad and Mansouri (2016) reported a medium-level relationship between transformational leadership and teacher self-efficacy in their study conducted in Iran (r = .57). However, Groote Beverborg et al. (2015) and Valckx et al. (2020) found the same relationship to be insignificant in their respective studies in Belgium (r = .06) and the Netherlands (r = .08), whilst Gumah et al. (2021), on the other hand, reported a weak relationship in a Chinese sample (r = .22).

The level of the relationship between transformational leadership and teacher self-efficacy has varied in studies conducted in different countries (Mehdinezhad & Mansouri, 2016; Valckx et al., 2020), indicating the need to clarify the relationship between transformational leadership and teacher self-efficacy. Whether or not this relationship is linked to culture needs to be revealed, making the current study significant since it aims to identify the relationship between transformational leadership and teacher self-efficacy based on the literature. Additionally, it aims to reveal how the relationship between transformational leadership and teacher self-efficacy differs in terms of different countries' cultural values.

Conceptual Framework

Transformational leadership

There are various definitions of leadership in the literature. Northouse (2010) defined leadership as "a process whereby an individual influences a group of individuals to achieve a common goal" (p. 3). Transformational leadership, one of the leadership types studied under various kinds of leadership and from various aspects, has been defined as a process that focuses on enhancing workers' capacities in accordance with an organization's goals (Leithwood & Jantzi, 2006; Luo et al., 2020). Avolio et al. (1999) highlighted that transformational leadership embodied components of individualized support, intellectual stimulation, inspirational motivation, and idealized influence. Bass et al. (2003) clarified these components as follows: *Individualized support* includes a leader's behaviors that encourage workers and help support their development by offering them appropriate opportunities. *Intellectual stimulation* involves a leader's behaviors enabling workers to demonstrate their creativity and increase their awareness levels. *Inspirational motivation* relates to a leader's behaviors that motivate workers through the use of symbols and images. *Idealized influence* embodies a leader's behaviors that guide workers in line with an organization's vision and mission.

Leithwood and Jantzi (2006) developed a transformational leadership model comprised of three categories: setting directions, developing people, and redesigning the organization. The first two categories include the four components suggested by Avolio et al. (1999), as previously mentioned. Redesigning the organization includes a leader's behaviors that aim to reshape or remodel the culture of a school and its structure in order to reinforce the relationships among its staff (Luo et al., 2020). Within the school context, transformational leadership refers to a school leader enhancing teachers' capacities as a means to realizing the vision and mission of the school. Transformational leaders in the school context enhance the teachers' self-confidence through helping to reveal their skills and abilities (Buluç, 2009).

Teacher self-efficacy

Self-efficacy is a concept based on social-cognitive theory. Self-efficacy is an individual's belief in oneself and his/her abilities to manage and realize prospective potential situations (Bandura, 1997). Teacher self-efficacy is a teacher's belief in one's abilities to uncover desired student behaviors (Tschannen-Moran & Hoy, 2001). Bandura (1997) examined self-efficacy in four dimensions: mystery experiences, vicarious experiences, social persuasion, and physiological reflection. Tschannen-Moran and Hoy (2001) argued that teacher self-efficacy consists of the factors of instructional strategies, classroom management, and student engagement. Polatcan et al. (2021) clarified these factors as: *Instructional strategies*, which concern a teacher's self-belief regarding the selecting and implementing of appropriate and effective instructional strategies, methods, and techniques; *classroom management*, which relates to a teacher's belief in organizing a classroom setting and student behaviors in harmony with the instructional objectives; and, *student engagement*, which is a teacher's belief in oneself regarding enhancing students' participation, attitudes towards lessons, and motivation.

Transformational leadership and teacher self-efficacy

Transformational leaders are mediators of change in schools, aiming to transform teachers' behaviors in an attempt to ensuring the change. Effective teacher behaviors

enhance the quality of instruction in schools, and transformational leaders support teachers' self-beliefs. The literature has showed that a relationship exists between transformational leadership behaviors and teacher self-efficacy (Gumah et al., 2021; Mehdinezhad & Mansouri, 2016). The level of this relationship, however, has varied in different studies, and some have reported only an insignificant relationship between transformational leadership and teacher self-efficacy (Groote Beverborg et al., 2015; Valckx et al., 2020).

National culture as a moderator variable

Culture has a comprehensive meaning that is hard to define. According to Bates (1987), the concept of culture gives meaning to life and provides the framework in which social identity and an individual's understanding of oneself and the world are constructed. This framework is related to beliefs, languages, rituals, knowledge, traditions, and works. Culture is partially empirical, explanatory, and objective, whilst it is also partially mythical and related to meaning instead of facts. National culture is also a complicated concept, and has been defined in various ways. Hofstede et al. (2010) define national culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (p. 6). Zhao et al. (2021) described national culture as a conscious system developed by humankind through adapting to social developments, whilst according to the Globe Project (2004) and House et al. (2013), national culture comprises the dimensions of performance orientation, assertiveness, future orientation, humane orientation, institutional collectivism, in-group collectivism, gender egalitarianism, power distance, and uncertainty avoidance. Similarly, Hofstede et al. (2010) examined national culture according to several factors; power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence versus restraint.

Power distance (PD) is the size of the distinction between individuals with different power and statuses (Hofstede et al., 2010). In cultures with high power distance, power, authority, and knowledge are unevenly distributed amongst the individuals (House et al., 2013). In cultures with higher PD levels, hierarchy is more powerful in relationships between those in authority/leader and subordinates. If the level of PD is low, then the hierarchy between authority/leader and subordinate is weaker and therefore less powerful (Steers et al., 2010). In a meta-analysis study by Jackson et al. (2013), it was observed that PD moderates the relationship between transformational leadership and commitment. In parallel, Zhao et al. (2021) revealed the moderator role of PD in the relationship between transformational leadership and project success. Furthermore, in the meta-analysis study by Leong and Fischer (2011), PD was found to be a significant moderator in the relationship between transformational leadership and its outcomes.

Individualism (ID) relates to an individual's making own decisions (House et al., 2013). In cultures with high ID, the individual's environment is structured loosely/flexibly and individual interests are considered more important than social interests (Steers et al., 2010); whereas, in cultures with high collectivism, the individual's environment is strictly structured (Hofstede et al., 2010). Gui et al. (2020) observed the moderator role of ID in the relationship between transformational leadership and extra activities in hospital management, and Crede et al. (2019) also found that ID was a moderator in the relationship between transformational leadership and organizational citizenship behaviors.

Masculinity (MAS) is related to individuals' sources of motivation. These sources include success, winning, and competing (Hofstede et al., 2010). In cultures with a high level of MAS,

wealth, money, personal goals, boldness, aspiration for promotion, and the feeling of competition are considered more valuable (Steers et al., 2010). In their meta-analysis study, Leong and Fischer (2011) reported that MAS is not a significant moderator in the relationship between transformational leadership and organizational outcomes.

Uncertainty avoidance (UA) has to do with individuals' reactions to and behaviors in uncertain situations. UA involves individuals' threat perception in cases of uncertainty (Hofstede et al., 2010). Higher levels of UA are related to higher levels of anxiety and stress, while lower levels of UA are related to more harmonious behaviors. Cultures with high levels of UA are deemed less tolerant in cases of uncertainty (Steers et al., 2010). The meta-analysis study by Li et al. (2021) revealed the moderator role of UA in the relationship between transformational leadership and employee engagement. Crede et al. (2019) also concluded that UA moderates the relationship between transformational leadership and organizational citizenship behaviors.

Long-term orientation (LTO) comprises a culture's behaviors of investing in the short or long term, sustaining relationships, and husbandry (Hosftede et al., 2010). LTO is a measure of investment made in terms of work, life, and relationships. Cultures with high levels of LTO are more future-oriented, whilst those with low levels of LTO are more oriented to the past and present (Steers et al., 2010). Crede et al. (2019) reported the moderator role of future orientation in the relationship between transformational leadership and organizational citizenship.

Indulgence versus restraint (IVR) relates to the control systems used by individuals over their own lives. IVR is individuals' ways of realizing their basic human desires, such as finding enjoyment in life and achieving a sense of satisfaction. Cultures with a high level of IVR are more tolerant, where people achieve satisfaction in life in a relatively more unrestrained way. In restrictive cultures with lower levels of tolerance, certain social rules and structures can have a limiting effect on the life satisfaction of individuals (Hofstede et al., 2010). Crede et al. (2019) revealed the moderator role of humane orientation in the relationship between transformational leadership and organizational citizenship behaviors.

Scales as moderators

The Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1990) and its subsequent versions are frequently used to measure transformational leadership behaviors (Leong & Fischer, 2011). There are also various other scales (Luo et al., 2020). On the other hand, the scale developed by Tschannen-Moran and Hoy (2001) is often used to measure teacher self-efficacy (Windlinger et al., 2020). In addition, other scales have been introduced and used in the literature (Hoxha & Hyseni-Duraku, 2017). The role of scale types should also be considered when examining the relationship between transformational leadership and teacher self-efficacy.

School level as a moderator

Runhaar et al. (2010) reported an insignificant relationship between transformational leadership and teacher self-efficacy at high school level. However, Demir (2008) reported a medium-level relationship at elementary school level. The differences in the relationship between transformational leadership and teacher self-efficacy in terms of school levels are noteworthy, and the role of school level should therefore be considered in this relationship.

3. METHODOLOGY

The current study employed meta-analysis method, which synthesizes the findings of quantitative research studies. Researchers also prefer this method to evaluate the results of similar studies regarding a certain subject or problem (Card, 2015). The meta-analysis method enables a researcher to evaluate studies from different countries concomitantly. This study used meta-analysis to examine the relationship between transformational leadership and teacher self-efficacy in terms of cultural values.

Data collection

The data of the current study (independent studies) were accessed through electronic repositories, with articles accessed that were indexed in the Web of Science (WoS), Scopus, and ERIC databases. Additionally, articles not indexed in these databases were also accessed through Google Scholar. The option to search according to article title was selected, with searches based on the keywords of leadership or leader or transformational, along with teacher self/-efficacy or teacher efficacy or teachers' sense of self/-efficacy or self/-efficacy. Prior to performing the search, the following inclusion criteria were determined.

Inclusion criteria

1. Studies should focus on transformational leadership and teacher self-efficacy, whilst those with a focus on teacher collective efficacy were excluded, as were studies on instructional leadership, distributed leadership, and other types of leadership.
2. Studies should be written in the English language and published between 2008 and 2021. Notably, studies which had a title and abstract in English but the full text in another language were also excluded.
3. Studies should include appropriate and adequate statistical indices in order to calculate an effect size. Any studies lacking such indices were excluded.
4. The transformational leadership in the studies should focus on school leaders' leadership behaviors. Studies focusing on teacher leadership and teacher self-efficacy were excluded.
5. Samples in the studies should consist of teachers and school leaders. Studies with preservice teachers or a school-level unit of analysis were excluded.
6. Studies should focus on teachers working at the primary or secondary education level. Studies conducted at the tertiary level were excluded.
7. Studies should use a survey design. Intervention studies were excluded.
8. Only studies gaining at least eight points from the quality scale used in the current study were included. Studies with lower scores were excluded.

Quality evaluation: The 14-item Quality Assessment and Validity Tool for Correlational Studies, developed by Cicolini et al. (2014), was used in the current study. The high-quality interval relates to 10 to 14 points, the medium-quality interval relates to 5 to 9 points, and the low-quality interval relates to 0 to 4 points. The quality check was conducted independently by the researchers. The dataflow diagram of the study is presented in Figure 1.

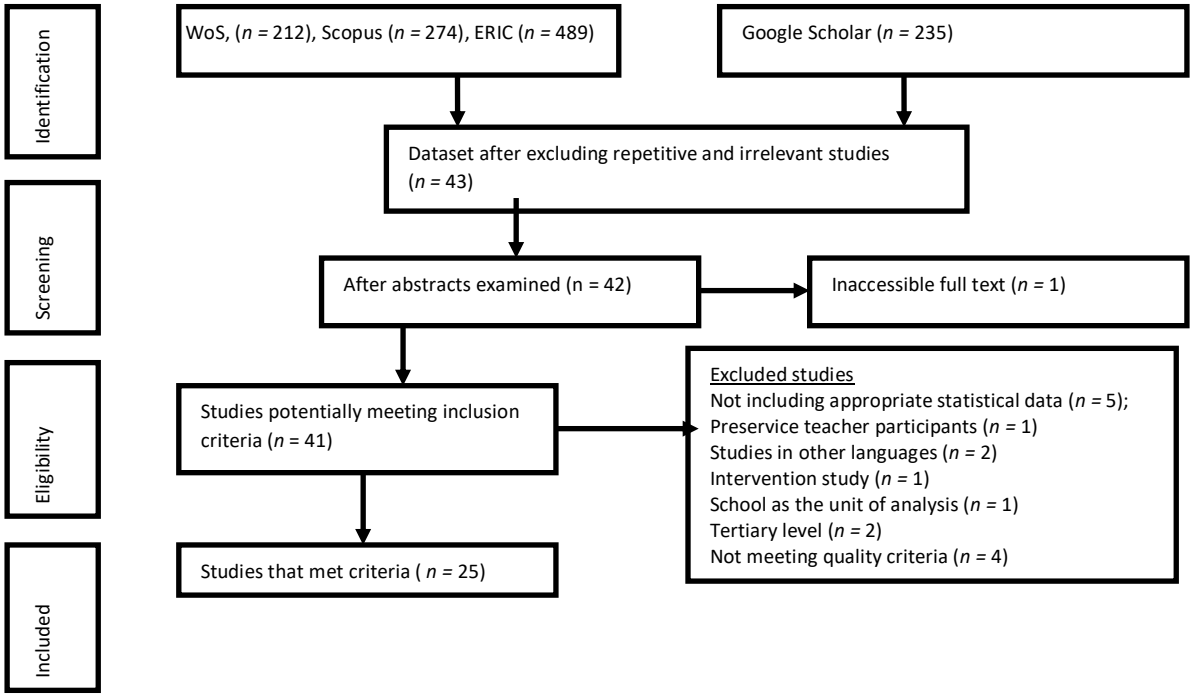


Figure 1. Dataflow diagram of the study

Coding

The researchers developed a coding form to assess and code the studies in the dataset. The coding form included the headings of the identification tag of the study, leadership scale type, self-efficacy scale type, school level, publication type, and year of publication. The researchers coded the data based on the following explanations.

Publication year: The year in which the study was published was referenced.

Self-efficacy scale type: The self-efficacy scales were coded based on their frequency of use. For instance, researchers frequently used versions of the scale developed by Tschannen-Moran and Hoy (2001), and these studies were coded as *versions of Tschannen-Moran and Hoy.* The researchers also used various scales to measure self-efficacy level. For example, the scale developed by Bandura (1997) and its versions (e.g., Gibson & Dembo, 1984; Schwarzer et al., 1999) were commonly used. If the scales used in a particular study were not frequently used in the sample of studies, they were coded as *others.*

Leadership scale type: The leadership scales were coded similarly to the self-efficacy scales, as in they were based on the frequency of use. Seldom used scales were coded as *others*. The Multifactor Leadership Questionnaire (MLQ), as developed by Bass and Avolio (1990) is a frequently used leadership scale, and this scale and its versions were coded as *MLQ versions*.

School level: The school levels were coded based on the International Standard Classification of Education (UNESCO, 2011).

The cultural dimension of countries: The countries were coded based on the dimensions of culture referencing the index scores of Hofstede et al. (2010). This index involves a limited number of countries. Each country was coded according to six different cultural dimensions, with each determined according to an index. The six dimensions were the *power distance*

index (PDI), *individualism* (IDV), *masculinity* (MAS), *uncertainty avoidance index* (UAI), *long-term orientation* (LTO), and *indulgence versus restraint* (IVR). A sample coding is presented in Table 1. The study conducted in Kosovo by Hoxha and Hyseni-Duraku (2017) was not coded since no data was given regarding the related country.

Table 1. Countries in terms of cultural dimension index

Country	PDI	IDV	MAS	UAI	LOI	IVR
Netherlands	38	80	14	53	44	68
Chinese	80	20	66	30	87	24
Iran	58	41	43	59	14	40

Data analysis

The unit of analysis in the current study is the research study level. Each independent study produced an effect size. Each study reported the Pearson correlation coefficient (*r*) in the relationship between transformational leadership and teacher self-efficacy. Additionally, variance is substantially dependent on correlation value. The Pearson correlation value ranges from +1 to -1. This range narrows the variance (Borenstein et al., 2011). Therefore, in the process of calculating the effect sizes produced by each study, the *r* values were transformed to Fisher's *z* (*Fz*) values (*r* = *Fz* = *ES*). Two models are used to calculate the mean effect size: the fixed-effect model and the random-effects model. The random-effects model is recommended when the contexts and characteristics of the studies differ (Field & Gillett, 2010), and are therefore used in meta-analytic analyses. The value intervals suggested by Funder and Ozer (2019) were used to interpret the effect sizes.

The validity and reliability of the mean effect size are closely related to whether or not the dataset involves publication bias. There are various statistical tests used to check the publication bias of the distribution of effect sizes (Bakioğlu & Göktaş, 2018). These tests have certain advantages and limitations (Borenstein et al., 2011). Funnel plot, Egger's test, and Duval and Tweedie's trim and fill (DTTF) technique were used to analyze the publication bias of the datasets in the current study.

Heterogeneity in meta-analysis studies stems from sampling error and differences among studies. The Q statistical technique was used to check the heterogeneity of the datasets. Additionally, I^2 values were also calculated. The researchers used the intervals offered by Higgins et al. (2003) to interpret the calculated values.

Leadership scale type, self-efficacy scale type, publication year, publication type, and school level were assigned as categorical moderators. In addition, cultural dimensions of countries (cultural values) were assigned as continuous moderators. Q between (Qb) values were calculated in order to identify whether or not mean effect sizes differed in terms of categorical moderators. Meta-regression technique was used to test whether continuous moderators predicted mean effect size or not. Effect size calculations, publication bias analysis, and other statistical procedures were performed using CMA 2.0.

4. RESULTS

Descriptive statistics and mean effect size

The current research examined 25 independent studies (see Appendix). The studies were conducted in 15 countries; Netherlands (*n* = 5), Turkey (*n* = 3), China (*n* = 3), Malaysia (*n* = 2),

Belgium (*n* = 2), India (*n* = 1), Croatia (*n* = 1), Switzerland (*n* = 1), Ghana (*n* = 1), Singapore (*n* = 1), Serbia (*n* = 1), Philippines (*n* = 1), Iran (*n* = 1), Korea (*n* = 1), and Kosovo (*n* = 1). The smallest sample was *N* = 120, whilst the largest was *N* = 1,702. The mean of the sample constituting the dataset was X = 499.80, *SS* = 410.578. The total combined number of participants from all 25 studies was 12,495.

A total of 25 independent effect sizes were produced, with the smallest being *ES* = .06, and the largest as *ES* = .648. The mean value of the effect sizes was *ES* = .281 (*LL* = .222, *UP* = .341). In other words, the relationship between transformational leadership and teacher self-efficacy was found to be weak. The total heterogeneity amount of the dataset was calculated as Q (top) = 256.234. Additionally, the heterogeneity level of the dataset was I^2 = 90.634. In other words, the dataset used in this meta-analytic study was shown to be highly heterogeneous.

Publication bias analysis

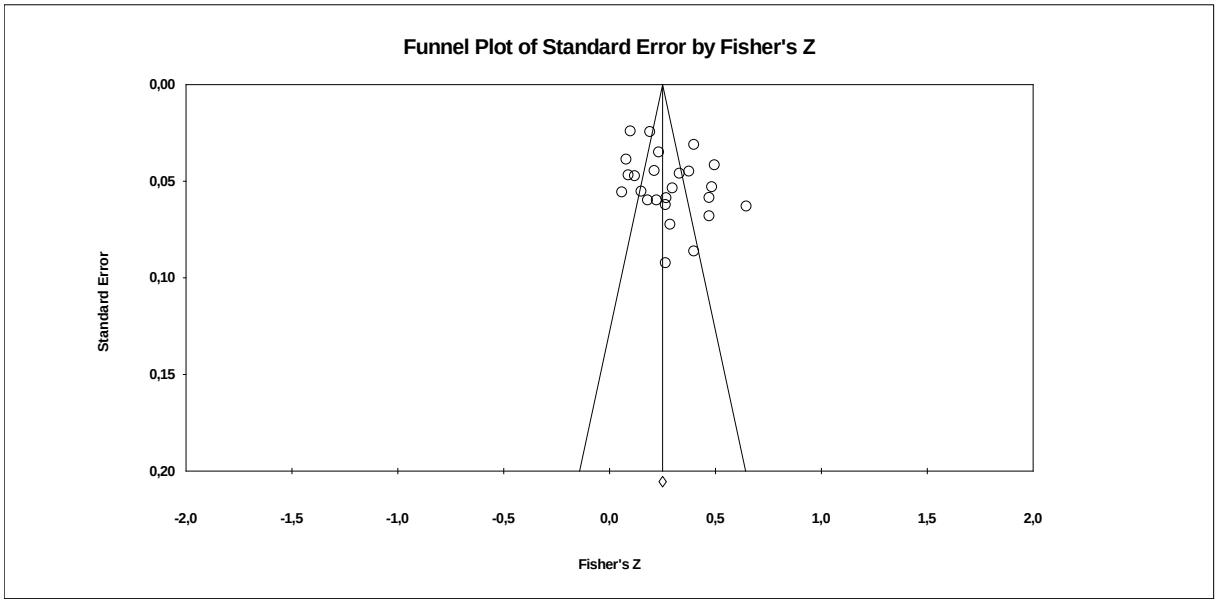


Figure 2. Funnel plot of the dataset

The funnel plot of the dataset is presented in Figure 2, and demonstrates the distribution among effect sizes and standard errors. The distribution of the effect sizes in the dataset was found to be symmetrical compared to standard errors. The symmetrical distribution indicates that the dataset did not have a significant level of publication bias. Similarly, Egger's test results revealed that the dataset did not have publication bias (*t* = 1.83, *p* = .08). In addition, the DTTF results (see Table 2) showed that there was no need to remove or add any studies. These tests proved that the dataset did not contain any publication bias.

Table 2. DTTF test of the dataset

Dataset	Excluded studies	ES and 95% confidence interval			Q(top)
		ES	*LL*	*UP*	
Observed		.281	.222	.341	256.234
Adjusted	0	.281	.222	.341	256.234

Moderator analysis for categorical variables

Table 3 presents the results of the categorical moderator analysis.

The effect sizes were not found to differ significantly in terms of leadership scale types, self-efficacy scale type, school level, or publication year.

Table 3. Moderator analysis of the dataset

Group	*n*	*ES*	*LL*	*UL*	*Q(b)*	*df*	*p*
Leadership scale							
MLQ by Bass and Avolio versions	10	.334	.232	.436			
PLQ by Leithwood and Jantzi versions	5	.279	.131	.426			
Hulpia, Devos, and Rosseel versions	3	.222	.036	.407			
Others	7	.238	.119	.358	1.922	3	.589
Self-efficacy scale							
Tschannen-Moran and Hoy	12	.303	.216	.390			
Others	13	.262	.177	.347	.432	1	.511
School level							
Elementary	7	.268	.153	.382			
Secondary	10	.246	.149	.343			
Mixed	8	.338	.231	.446	1.632	2	.442
Year							
2008-2014	5	.228	.094	.362			
2015-2021	20	.296	.228	.363	.773	1	.379

Meta-regression analysis for continuous variables

Table 4 presents the meta-regression analysis results regarding continuous variables. As is evident in Table 4, the power distance orientation of cultures predicts effect sizes positively ($\beta = .004$, $p < .05$). Cultures with power distance orientation produced larger effect sizes. In other words, the relationship between transformational leadership and teacher self-efficacy is stronger in cultures with a high orientation of power distance. Additionally, countries' individualism orientation was shown to negatively predict effect size ($\beta = -.003$, $p < .05$). Cultures with higher levels of orientation towards individualism produced weaker effect sizes. In other words, the relationship between transformational leadership and teacher self-efficacy is weaker in cultures with high individualism orientation. Finally, the indulgence orientation of cultures negatively predicted the effect size ($\beta = -.003$, $p < .05$). Cultures with high indulgence orientation were shown to produce a lesser effect size. In other words, the relationship between transformational leadership and teacher self-efficacy is weaker in cultures with high indulgence orientation. On the other hand, masculinity, uncertainty avoidance, and long-term orientation were not found to predict effect size with any statistical significance.

Table 4. Meta-regression analysis of continuous variables in the dataset

Variable (k)	β	*SE*	*LL*	*UL*	*z*	*p*
PDI (24)						
Slope	.004	.001	.001	.006	3.427	.001
Intercept	.012	.079	-.142	.167	.158	.874
IDV (24)						
Slope	-.003	.001	-.005	-.001	-3.246	.001

Intercept	.426	.053	.312	.532	7.918	.001
MAS (24)						
Slope	.002	.0017	-.0016	.005	1.02	.307
Intercept	.189	.088	.016	.361	2.149	.031
UAI (24)						
Slope	-.002	.001	-.004	.001	-1.429	.152
Intercept	.373	.076	.224	.523	4.902	.001
LOI (24)						
Slope	-.0016	.001	-.004	.001	-1.198	.231
Intercept	.365	.083	.203	.528	4.401	.001
IVR (23)						
Slope	-.004	.001	-.007	-.001	-2.342	.019
Intercept	.464	.085	.298	.631	5.464	.001

5. DISCUSSION

The current study revealed a weak relationship between transformational leadership and teacher self-efficacy (*ES* = .28). In a meta-analysis study by Kirk (2016), a weak relationship between transformational leadership and teacher self-efficacy (*ES* = .30) was also reported. Additionally, a meta-analysis by Alanoğlu (2021) reported a low-level relationship between instructional leadership and teacher self-efficacy (*ES* = .41). Therefore, the literature supports the results of the current study.

The current study found that the power distance orientation of cultures positively predicts the relationship between transformational leadership and teacher self-efficacy. The relationship between transformational leadership and teacher self-efficacy was found to be more robust in countries with high power distance orientation. Some meta-analytical studies in the literature on transformational leadership and organizational outcomes have indicated the moderator role of power distance in this relationship (Jackson et al., 2013; Leong & Fischer, 2011; Zhao et al., 2021). On the other hand, in a meta-analysis that examined various institutions, Li et al. (2021) revealed that power distance was not found to be a moderator in the relationship between transformational leadership and employee engagement. This inconsistency in the findings may have resulted from the current study having included only studies conducted within the school context. Schools are bureaucratic organizations, and both hierarchy and status are considered significant in bureaucratic structures. Therefore, power distance may naturally moderate the relationship between transformational leadership and teacher self-efficacy in schools.

The current study's results also revealed that the individualism orientation of cultures negatively predicted the relationship between transformational leadership and teacher self-efficacy. That is to say, the collectivist orientation of cultures was shown to positively predict the relationship between transformational leadership and teacher self-efficacy. Meta-analysis studies on the relationship between transformational leadership and organizational outcomes also identified individualism orientation as a moderator variable (Crede et al., 2019; Gui et al., 2020; Jackson et al., 2013). The relationship between transformational leadership and teacher self-efficacy is stronger in cultures with high collectivist orientation. This result may be said to relate to more effective interaction between leaders and members in highly collectivist cultures, since group and institutional interests are generally more significant in such cultures.

Finally, the current study revealed that indulgence orientation of cultures negatively predicted the relationship between transformational leadership and teacher self-efficacy. Meta-analytical studies in the literature on the relationship between transformational leadership and organizational outcomes have also identified indulgence orientation as a moderator variable (Crede et al., 2019; Li et al., 2021). The relationship between transformational leadership and teacher self-efficacy is weaker in countries with high indulgence orientation, indicating a more substantial relationship in restraining cultures. This result may stem from interaction between leaders and members in such cultures being inherently dependent on rules, and abiding by the rules or the word of leaders being more commonplace in restraining cultures.

6. CONCLUSION

The findings of the current study revealed a weak relationship between transformational leadership and teacher self-efficacy. In addition, the findings showed that the power distance orientation of cultures positively predicts the relationship between transformational leadership and teacher self-efficacy, and that individualism orientation of cultures negatively predicts the relationship between transformational leadership and teacher self-efficacy. Finally, the findings showed that indulgence orientation of cultures negatively predicts the relationship between transformational leadership and teacher self-efficacy.

7. SUGGESTIONS

First, the current study was limited to studies published in the English language. Future research could therefore opt to include studies published in other languages. Second, the current study is limited to including only academic articles; whereas, future studies could also include graduate theses. Third, the current study was limited to data from 15 countries, with a significant limitation being that no studies were included from the continents of North America or South America. Independent studies should therefore be conducted in the future that include research from these continents. Fourth, the evaluation of cultural values was limited in the current study to the index developed by Hofstede et al. (2010). Future studies could opt to utilize different cultural evaluation indices such as the Global Leadership & Organizational Behavior Effectiveness (GLOBE, 2020).

DECLARATIONS

Author Contributions. All authors contributed to the study conception and design. Data collection and analysis were performed by the first author. The first draft of the manuscript was written by both authors and all authors commented on subsequent versions of the manuscript. All authors read and approved the final manuscript.

Conflicts of Interest. The authors declare no conflict of interest.

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APPENDIX I.: Studies Included in the Meta-Analysis

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