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### **A Correlational Study in Transformational Leadership and Teachers Collective Efficacy of Secondary School Teachers**

#### **ABSTRACT**

*This paper attempts to find a potential relationship between transformational leadership and teacher collective efficacy, with a belief to establish a better way of achieving school targets with minimum investments and help increase student learning. A survey was conducted in 6 secondary schools of NCR area, capturing responses from 75 teachers. Statistical analysis was done on the responses and a positive moderate correlation between both the variables, transformational leadership and teacher collective efficacy, was established. Paper concludes that leadership style has a direct impact on teachers' collective outcome and hence suggests that training school principals in transformational leadership style is a low cost investment with higher returns.*

#### **INTRODUCTION**

In the today's age of Internet and digitization, information has become a commodity and everyone has access to enormous data available over wires across the world. Adding more to this, factors like nuclear families with working couples, globalization, changing standards of social and moral value, are reshaping the interaction of humans in almost every dimension. This level of technology intrusion and reoriented ways of living have directly impacted the upbringing of children in the society. No society can be sustainable if its children do not get a proper education and teachers' guidance, thus making the significance of teachers important than ever in present scenario. Today, Parents are expecting an all-round development of their children from the schools and teachers.

Teachers are main source of bringing change in children which further results in making a good society and a good country. It has led to an augmented role of teachers in the school.

Taking a realistic view of schools today, whether working for profit or not, they are run as an organization. An organization has clear objectives and a system to achieve it. Teachers are employees of this organization who work under the direction of a leader. It leads to two important facts that achieving organization's objective would depend on how well teachers work together and what kind of leadership they receive from their leader.

Researches have been done on defining various dimensions in the same context namely Teacher Collective Efficacy, Transformational Leadership and Job Satisfaction. Taking note of this, researcher set out to validate the relationship between Teacher Collective Efficacy and Transformational Leadership.

**Teacher Collective Efficacy** was defined by **Goddard, Hoy, and Hoy (2000)** as “the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students,” with the faculty in general agreeing that “teachers in this school can get through to the most difficult students.” In the view of these researchers, “teachers’ shared beliefs shape the normative environment of schools [and] are an important aspect of the culture of the school.” Veteran educators have likely experienced some of the effects of a strong positive or negative sense of collective efficacy.

**Transformational Leadership** as an idea was first proposed by in 1978 by James McGregor Burns, later expanded by Bernard Bass (Liontois, 1992). Although they based their work on business executives, army officers and political leaders, the principles of transformational leadership can be extended to schools (Liontois, 1992). The stakeholder theory views business firms as being composed of various constituencies (workers, managers, customers, suppliers, and so forth), all of whom have a legitimate strategic and moral stake in the organization but may have different values, beliefs and so forth. Therefore, in order to achieve an organization that will be beneficial to every shareholder, the people must come together and cooperate on the basis of values, interests and social choice (Bass and Steidlmeier, 1998). In schools, it deals with finding a way to become successful in collaboratively defining the essential purpose of teaching and learning and then empowering the entire school community to become energized and focused (Liontos, 1992).

**Jennifer J Short (2016)** conducted a study to understand the relationship between teachers' self-efficacy in student engagement, instructional strategies, and classroom management and the extent to which edifiers perceived their principals as engaging in transformational leadership practices. The results of this study have implicative insinuations for district, building bellwethers, and teachers in regards to building self-efficacy and engaging in transformational leadership practices.

**Stefan R Ninkovic, Olivera C KnezevicFlorice (2016)** conducted a study to explore the cognations between transformational school leadership, teacher self-efficacy and perceived collective teacher efficacy. The research findings showed that individually-focused transformational leadership contributed significantly to an explication of collective efficacy after controlling concrete prognosticator effects of group-focused dimensions of transformational leadership.

**Sii Ling & Mee Ling (2016)** research findings showed either direct or indirect relationship between transformational leadership, teacher commitment. They offer insights on how leadership practices affect teachers' commitment and sense of teacher efficacy.

**R Goddard, Y Goddard, ES Kim, R Miller (2015)** The results showed a significant direct effect of leadership on teacher collaboration. Further leader and collaboration predicted collective efficacy beliefs.

Review of related literature in this context led researcher to believe that majority of the work has been done by researchers outside of India and in context of Indian conditions, specifically private schools of Delhi-NCR area, it would be interesting to see that how transformational leadership and collective teacher efficacy relate together. Private schools are run for profit and there is a major push by school owners to produce best results to stay competitive in the industry. If researcher could conduct this research and find out the relationship between transformational leadership and collective teacher efficacy, school management decision making could be hugely benefitted by this as they can choose where to invest more to increase student achievement and student learning.

## **OBJECTIVES**

The researchers framed following objectives to conduct the study:

1. To explore the present status of teacher collective efficacy in secondary school teachers.

2. To seek out the nature of transformational leadership in secondary school teachers.
3. To find out the relationship between Transformational Leadership and Teacher Collective Efficacy
4. To study the relationship between four dimensions of Transformation Leadership and Teacher Collective Efficacy

## **HYPOTHESES**

1. There is no significant relationship in teacher collective efficacy and transformational leadership of secondary school teachers.
2. There is no significant relationship in all four dimensions of teacher collective efficacy and transformational leadership of secondary school teachers.

## **RESEARCH DESIGN**

The purpose of the study was to answer the research questions that relate to Transformational Leadership variables among secondary teachers such that the collected responses could be processed and analyzed further to correlate Teacher collective efficacy. Following research design was put in place to conduct the study:

### **Research Method**

This study tool mainly uses Descriptive Survey cum Correlation method. The survey method enabled the researcher to reach a bigger and more extensively distributed sample of teachers in Ghaziabad and NCR areas. To address diversity in an investigation, a quantitative method using survey questionnaires is intelligent enough to provide a degree of freedom to respondents to freely act in response to the questions asked.

### **Variables of the Study**

This study uses following 2 variables –

- 1) Transformational Leadership – This is an independent variable with following four dimensions to measure transformational leadership:
  - a. Asking Device – highlights whether principal takes advice of teachers
  - b. Ideal Teacher – highlights whether teachers consider principal as an Ideal teacher

- c. Principal as motivation – highlights whether teachers consider principal as a motivation
  - d. Execution of his work – highlights whether principal is organized in executing his work
- 2) Teacher Collective Efficacy – This is dependent variable.

### Sample

Researcher chose random-convenience sampling to collect the samples. Selection of sample from list of schools is done randomly and then willing teachers were taken for the research sample. Sampling process is as follows:

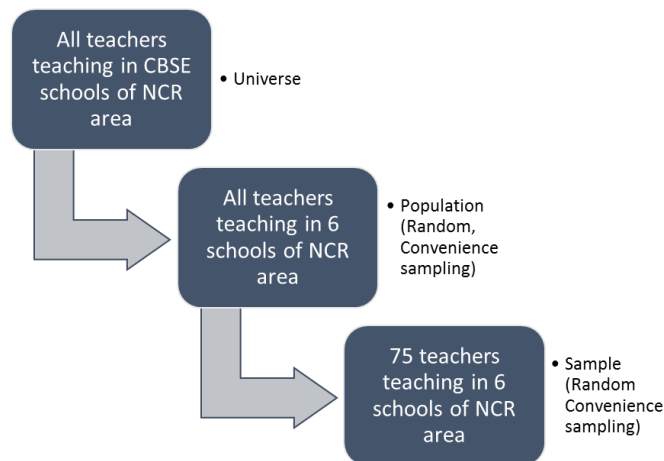


Fig 1 – Sampling Process

### Tools employed in the study

The researcher used following two tools for the present research:

1. **Teacher Collective Efficacy Scale** constructed by **Goddard and Hoy** was adapted in Indian conditions by researcher.

**Reliability** - The reliability of the scale was determined using Split Half method which was found to be **0.84**, suggesting that scale is highly internally consistent (reliable).

**Validity** – Expert Judgment was used for tool validity (valid)

2. **Transformational Leadership Scale** (Self-Constructed): A Likert type and summated scale was constructed to measure transformational leadership. Four dimensions were taken on the basis of reviewed literature and experts' opinion. There are 20 items finalized in scale.

**Reliability** - The reliability of the scale was determined using Split Half method which was found to be **0.85**, suggesting that scale is highly internally consistent (reliable).

**Validity** - Expert Judgment was used for tool validity (valid)

## FINDINGS AND DISCUSSION

In order to interpret results and draw conclusions following statistical treatments were used:

- Descriptive Statistics
- Correlation

### Descriptive Statistics

Researcher collected responses from tools, processed them through coding and performed a descriptive statistics analysis to understand and describe the nature of responses collected. First level of analysis was done on demographic factors of respondents and following were the observations

Female	Male	Graduates	Postgraduate	Avg Experience	Avg Age
55	20	9	66	15	35

Respondents included 55 females and 20 males. In females, there were 5 graduates and 51 post graduates while males had 5 graduates and 15 post graduates. There were 10 respondents with less than 1 year of experience while 10 respondents were there with more than 20 years of experience; averaging out to 15 years as overall experience for the group. Average age for the group was noticed to be 35 years.

Responses for Transformational Leadership tool were categorized under four categories – Transformation Leadership (TL) as a whole (summing up all scores), Asking advice, Ideal Teacher, Principal as Motivation and Execution of his work.

Statistics/Variable	Asking advice	Ideal teacher	Principal as Motivation	Execution of his work	TL	TCE
Mean	17.84	21.79	19.29	20.12	79.04	104.47
Median	19.00	21.00	19.00	20.00	79.00	105.00
Mode	20.00	21.00	19.00	19.00	78.00	95.00
Standard Deviation	2.99	1.79	3.16	2.89	6.69	7.37
Kurtosis	0.12	-0.67	-0.18	2.18	-0.42	-0.53
Skewness	-0.79	0.11	-0.23	-1.00	-0.55	-0.44
Range	12.00	7.00	13.00	14.00	24.00	30.00
Minimum	10.00	18.00	12.00	11.00	65.00	87.00
Maximum	22.00	25.00	25.00	25.00	89.00	117.00

Table 1 – Descriptive Statistics of TCE, TL and TL's four dimensions

As we can see from the Table 1 above, "Asking Device" trait of Transformation Leadership maintains a kurtosis of 0.12 and there is a minimal difference between values of mean, median and modes, we can interpret that data distribution is very much symmetric. Similarly, "Ideal Teacher" and "Principal as Motivation" traits of Transformational Leadership also exhibit a symmetric data distribution with skewness value of 0.11 and -0.23 respectively. "Execution of his work" trait of Transformation Leadership variable maintains a negative skewness with value -1, suggesting a tail towards the left; kurtosis value of 2.18 further suggests that there is a strong fatter tail with the high extreme values. These statistics indicate that respondents believe that there is a certain level of Transformation Leadership being practiced in schools. Summing all these scores together researcher observed almost similar behavior in case of Transformational leadership variable where mean, median and mode maintained almost same value with a kurtosis of -0.42 and Skewness of -0.55, suggesting a thinner tail on left side with lower extreme values. Teacher Collective Efficacy responses showed a skewness of -0.44 suggesting a perfect symmetric data with a kurtosis of -0.53 leading to believe that there is a thinner tail on the left with less extreme values.

Transformational leadership and all its dimensions observed almost same values of mean, median and modes, showing a normal distribution. TCE has similar values of mean and median with mode being a little distinct pointing to the fact that most common score was different from mean and median. Standard deviation for TCE is 7 with a range of 30, this points to a wider data dispersion. On the other hand, TL has a standard deviation of 7 with a range of 24 and same values for mean and median, pointing to a less data dispersion. TL has 76% scores with 1 standard deviation and 96% data within 2 standard deviations, conforming to the normal distribution. All dimensions of Transformational leadership exhibit a normal distribution with majority of scores lying within 2 standard deviations itself.

**Correlation**

Researcher submitted these scores for scatter plot creation to observe any potential correlation between variables and received following results:

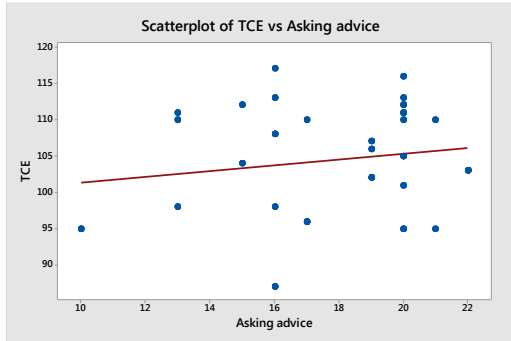


Fig 2 - TCE & TL (Asking Advice)

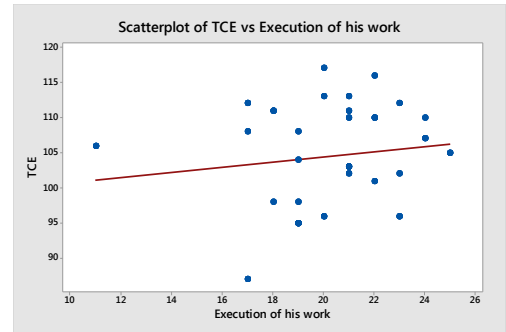


Fig 3 - TCE & TL (Execution of his work)

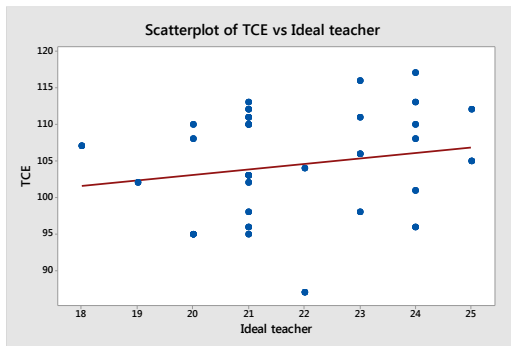


Fig 4 - TCE & TL (Ideal Teacher)

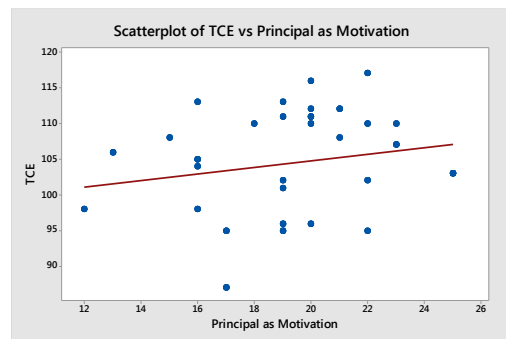


Fig 5 - TCE & TL (Principal as Motivation)

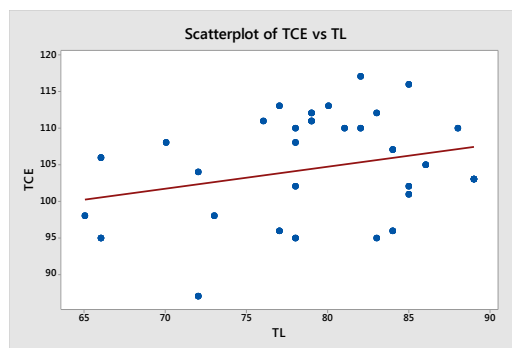


Fig 6 - TCE & TL

It is clear from above mentioned scatterplots that there is a clear positive relationship between both the variables. The line of best fit does not cover the maximum responses but fairly manages to indicate that there is a positive moderate correlation between these variables.

Researcher then ran a correlation test on these scores to find out any potential correlation between variables. The results obtained clearly indicate that there is a moderate positive correlation among variables.

TCE/TL & TL Traits	Asking advice	Ideal teacher	Principal as Motivation	Execution of his work	Transformational Leadership
Teacher Collective Efficacy	0.16	0.18	0.20	0.14	0.27

Table 2 – Correlation Matrix

Analysis showed that Transformational Leadership has a positive moderate correlation of 0.27 with Teacher Collective Efficacy. All dimensions of Transformations leadership considered in the study also maintained a positive moderate correlation with Teacher Collective Efficacy variable.

Table 2 shows a value of 0.16 (Asking Advice & TCE), 0.18 (Ideal Teacher & TCE), 0.20 (Principal as motivation & TCE) and 0.14 (Execution of his work & TCE) as a source of positive moderate correlation between four dimensions of Transformation Leadership and Teacher Collective Efficacy. Therefore, both the hypotheses can be rejected.

## CONCLUSION

Results of the research indicate that existence of transformation leadership style clearly made an impact on teacher collective efficacy. Teachers who believed in their principal as a source of motivation, liked his execution style and considered him as ideal teacher, also performed well collectively to achieve overall organization goal. Teachers of NCR area (Ghaziabad, Noida, Faridabad) are exposed to a busy life style and their living standard is also better off than suburbs, their exposure to better training institutes and digital knowledge base is also far ahead than other surrounding tier 2 and tier 3 cities. Research interprets this as their advantage to better respond to various prevailing leadership styles and also practice that. Researcher concludes this research with an understanding that a proper application of transformation leadership can positively impact the overall output of school staff and better achieve the school's prime objectives – student achievement and learning. It is a relatively low cost investment for schools' management committees to train their school principals in transformational leadership, results are of significant importance with lot of collateral benefits in additional to the prime ones.

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