

A Comparative Study of English and Math Teachers' Perfectionism: Leadership and Empowerment

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Abstract

The present study aimed at investigating the relationship between three main characteristics of teachers; namely, perfectionism, leadership and empowerment, amongst Iranian English and math teachers. To do so, two groups of teachers were selected to participate in this study. One consisted of 177 math teachers and the other comprised 200 English teachers. All were teaching in Khorasan Razavi province, both in high schools and institutes. In order to collect the necessary data, three instruments (i.e. the Almost Perfect Scale–revised Questionnaire, School Participant Empowerment Questionnaire, and Leadership Practice Inventory) were employed. Having analyzed the data, the researchers found that the correlation among all the three variables were statistically significant for both math and English teachers. However, there was a statistically significant difference between math and English teachers regarding their leadership and empowerment, while no statistically significant difference was found between math and English teachers concerning their perfectionism.

Keywords: perfectionism, leadership, empowerment, math teachers, English teachers

Introduction

Education is the base of every society and teachers' role is vital in education and might develop educational reforms. Thus, it is not surprising that lots of researchers have dealt with characteristics of successful teachers and the way teachers can improve their profession in their job (Birjandi & Bagherzadekazemi, 2010). Nowadays, human knowledge transfers and changes rapidly. An organization seems as an open system that is upholding life to deal with environmental changes. Thus, human resources seem as an important factor in organization, and empowerment is introduced as crucial and important equipment for employees. Empowered employees have the ability to make decision, and be responsible for their work (Birjandi & Bagherzadekazemi, 2010; Hashemiannejad, 2014). Research on teacher empowerment in literature began in the 1980s, and four reasons have been found for the necessity of teacher empowerment at school. First, it was effective in teacher professionalism. Second, teacher empowerment had organizational and classroom dimensions. Third, teacher empowerment had great effects on students' learning. And finally, empowered teachers were more authentic. The studies, furthermore, have concluded that teacher leaders were more empowered than classroom teachers. Therefore, it seems that leader teachers could make decision and improve their profession, had control over daily schedule, and had a high level of teaching (Bogler & Somech, 2004). Moreover, studies indicated that teacher leaders were more professional, had control over daily schedule and had high level of teaching competency. On the other hand, empowered teachers were autonomous professionals and they were willing to perform their best at work

when they were intrinsically motivated and satisfied (Gagne & Deci, 2005; Rienhart & Short, 1992). Bagherzadeh (2004) found that there was a significant relationship between empowerment atmosphere and empowerment understanding and he stated that there was a relationship between empowerment understanding and the elements of organizational atmosphere, too. Besides, Zhu, May and Avoilio (2004) indicated that staffs' mental empowerment was related to leaders' ethical behaviors and staffs' commitment. Daniel (2008) stated that leaders' power of specialty had relationship with authority while the obligation and rewards did not have significant effects on teacher empowerment. Moreover, Ahmadi and Jahromi (2012) found out a significant relationship between dimensions of total quality management and the empowerment. Besides, they believed supervisions' leadership and organizational commitment and organizational atmosphere had significant effects on organizational commitment of the employees. Likewise, Avey, Palanski and Walumwa (2010) indicated there was a significant relationship between the style of construction leadership for human resource, political, and teacher empowerment. Besides, Daniel (2008) believed that there was a relationship between leaders' power of specialty and their authority. But obligation and reward were not effective on teacher empowerment.

A research by Rubin, Dierdoff and Brown (2010) indicated the relationship between teacher empowerment and teacher leadership in improving students learning at school. On the other hand, Lambert (1998) studied the relationship between forms of teacher leadership, teacher collaborative and capacity building for school improvement (as cited in Harris, 2003). Reisk, Martin, and Keating (2011) stated that there was no significant relationship between the honesty of manager and the empowerment of employees. Likewise, Brown and Mitchel (2010) concluded the leadership that understands changes affected on the teacher empowerment. Rubin et al. (2010) stated that leaders' human construction leadership brought teachers capabilities. Hashemiannejad (2014) studied the relationship between ethical leadership and teacher empowerment. He concluded that ethical leadership could empower teachers and improve employees' productivity at organizations. He found that there was a significant positive relationship between ethical leadership and teacher empowerment. However, Mortezaee, Dindarloo, Mohammadzade, and Khehavarz (2011) indicated that some of the dimensions of ethical leadership could not predict empowerment. Therefore, it seems in these studies, empowerment and leadership are elements that can improve EFL and ESL teachers and teaching methods. However, perfectionism dimensions and empowerment got too less attention as two interpersonal variables in relationship with leadership.

Perfectionism refers to a set of self-defeating thoughts and behaviors. These are concerned with reaching excessively high and unrealistic goals, even in areas in which high performance does not matter. Perfectionists often engage in overly critical self-evaluations. Failure experiences are often overgeneralized, and they will often pay particular attention to their failures at the expense of their successes. Perfectionists often experience all-or-none thinking, where they believe they are a failure if not all of their goals are completed without any mistakes - they have inflexible notions of what constitutes success and failure. They often experience a fear of making mistakes, and measure their self-worth in terms of productivity and accomplishment. Failure to achieve their goals results in a lack of personal worth (Broday, 1988; Brophy, 2005; Ellis, 2002; Frost & Marten, 1990; Hewitt & Eng, 1993; Shafran, Cooper & Fairburn, 2002). Perfectionism dimensions and coping strategies got too less attention as two interpersonal variables in relationship with leadership. This encouraged researchers to consider the affecting role of interpersonal factors on leadership as its effective variables itself. On the other hand, none of those studies investigated a comparative study on the relationship between EFL teacher's and math teachers' leadership, empowerment and their perfectionism together.

Due to a lack of research in what we are going to study in this research, the present study contributed to the field by exploring English and math teachers' perfectionism and empowerment and leadership, as well as the relationship among them. Thus, the investigation of these variables could provide valuable data, especially for English and math teachers and administrators in similar settings. Moreover, it could form a baseline for further research that focuses on how leadership and perfectionism and empowerment are related in different educational settings and in teachers in different fields of study, especially in Iran.

At the local level, this study was the first study in its setting, i.e. Iran, on the relationship among perfectionism, leadership and empowerment in English and math teachers. These data could help develop an understanding of math and English teachers working conditions in schools and their needs and expectations: a research area that needs to be explored.

Finally, in light of the results obtained in this study, administrators can develop specific interventions and modify the current educational policies to organize more professional development activities to increase the level of leadership and perfectionism at the same time, if necessary. This could also boost teaching efficacy and create a higher level of student success. It seems that English as a second language is very popular in Iran. Thus, lots of institutes in Iran try to teach language with new methods to develop their teaching and absorb more learners. Besides, learner-centered is the important factor in English institutes in Iran; thus, these institutes try to get new teaching concepts to develop their teachers' method and absorb more learners. The present study might give a better understanding of the factor that affect English teaching and learning and the analysis of data from this study would yield valuable information about these factors concerning effective teaching and developing EFL teachers method to foster EFL learning. It was expected that the findings would provide insights for English and math teachers to develop their teaching method and improve students' learning at institutes and schools in Iran.

Research questions

The following research questions were posed and thoroughly investigated in the current study:

1. Is there any significant relationship between Iranian EFL teachers' leadership and their empowerment?
2. Is there any significant relationship between Iranian EFL teachers' leadership and their perfectionism?
3. Is there any significant relationship between Iranian EFL teachers' perfectionism and their empowerment?
4. Is there any significant relationship between Iranian Math teachers' leadership and their empowerment?
5. Is there any significant relationship between Iranian Math teachers' leadership and their perfectionism?
6. Is there any significant relationship between Iranian math teachers' perfectionism and their empowerment?

7. Is there any significant difference between English and math teachers concerning their perfectionism, leadership and empowerment?

Methodology

Participants

Two groups of teachers were conveniently selected to participate in this study. One consisted of 177 Math teachers and the other comprised 200 English teachers. All of them were teaching in Khorasan Razavi province both in high schools and institutes. Their age range was between 31 and 56 years old, with varying years of teaching experience.

Instruments

Perfectionism Questionnaire

The Almost Perfect Scale-revised (Slaney, Mobley, Trippi, Ashby & Johnson, 1996) is a 23-item scale used to assess attitudes people have towards themselves, their performance, and towards others. It measures the adaptive and maladaptive aspects of perfectionism. Participants were asked to respond to items such as "I set very high standards for myself" using a Likert-type scale from "1 - Strongly disagree" to "7 - Strongly Agree". The Scale consists of three subscales - High Standards, Discrepancy, and Order - which were attained by totaling scores for particular items. The High Standards and Order reflect adaptive perfectionism and the Discrepancy subscale reflects maladaptive aspects of perfectionism. Scores ranged from 11 – 77 for adaptive perfectionism and from 12 – 84 for maladaptive perfectionism, with higher scores indicating higher perfectionism. Slaney et al. (2001) reported internal consistency coefficients for the APS-R ranging from .82 to .93 and good concurrent and construct validity. The scale was reported to have a construct validity established by factor analysis and reliability of 0.89.

Table 1. Perfectionism Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .89 | 23 |

School Participant Empowerment Questionnaire (SPES)

One of the questionnaires which were selected to evaluate Iranian EFL and math teachers' empowerment was School Participant Empowerment Questionnaire (SPES) designed by Short and Rinehart (1992). Short and Rinehart (1992) recorded Cronbach's alpha reliability of this test as .94. Reliability of dimensions was recorded, too. As they mentioned decision making alpha was .98, impact alpha was .82, autonomy alpha was .81, self-empowerment alpha was .84, professional growth was .83 and status alpha was .86. This is one of the most universal instruments used for assessing teacher empowerment. This questionnaire was valid and used by lots of researchers such as Short and Rinehart (1992). This questionnaire measures teachers' empowerment in the classroom. Teacher empowerment questionnaire has six dimensions. It consists of 1) decision making, 2) professional growth, 3) status, 4) self-empowerment, 5) autonomy, and 6) impact. This questionnaire has a 5-point Likert-type rating scale (1= strongly disagree to 5 = strongly agree). Moreover, it includes 38 items. In this questionnaire, ten items referred to decision making; six address each construct: impact, self-empowerment, professional growth, and status. And finally, four items address autonomy (Short & Rinehart, 1992).

Leadership Practice Inventory (LPI)

The questionnaire employed to assess the participants' leadership was Leadership Practice Inventory (LPI) designed by Kouzes and Posner (2003). LPI consists of 30 questions answered on ten-point Likert-type rating scale. This version of the survey for this study was completed by teachers regarding their principal behavior. The coefficient reliability of the inventory was .94. It consists of five categories questions related to leadership. Moreover, the content validity of this test was recorded as strong and high. LPI consisted of five categories: modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart. LPI category questions are illustrated in the following table:

Table 2. Leadership Practice Inventory Questions Category

| Category | Questions |
|--------------------------|------------------|
| Modeling the way | 1,6,11,16,21,26 |
| Inspiring a share vision | 2,7,12,17,22,27 |
| Challenging the process | 3,8,13,18,23,28 |
| Enabling other to act | 4,9,14,19,24,29 |
| Encouraging the heart | 5,10,15,20,25,30 |

Data Collection Procedure

The participants of the study were conveniently accessed through non-random sampling. They were selected from among all the English and math teachers of Khorasan Razavi province. Soon after they showed willingness to take part in the study, each teacher was asked to fill out the three questionnaires of the study. The printed or emailed versions of the questionnaires were distributed among the teachers and after collecting the data, they were coded and prepared for statistical analyses by SPSS.

Results

In this section, the analysis of data for investigating the research questions is presented.

Table 3. Result of Pearson Correlation Test between EFL Teachers' Leadership and Empowerment

| | | Teacher empowerment | Teacher leadership |
|---------------------|---------------------|---------------------|--------------------|
| Teacher empowerment | Pearson Correlation | 1 | .630** |
| | Sig. (2-tailed) | | .000 |
| | N | 200 | 200 |
| Teacher leadership | Pearson Correlation | .630** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 200 | 200 |

** . Correlation is significant at the 0.01 level (2-tailed).

As Table 3 demonstrates, there was a positive correlation between teacher leadership and teacher empowerment ($r = .63$) and the result was significant at the 0.01 level ($p < .01$). Thus, the null hypothesis was rejected. As it mentioned earlier, teacher leadership had some components:

modeling the way, inspiring a share vision, challenging the process, enabling other to act, and encouraging the heart. On the other hand, teacher empowerment categories were professional growth, self-empowerment, status, impact, decision making, and autonomy. Thus, the correlations of all these components were analyzed with Pearson correlation test.

Table 4. The Pearson Correlation Output for EFL Teachers' Leadership and Empowerment Components of Professional Growth and Status

| Criterion variables | Pearson correlation | Sig. |
|--|---------------------|------|
| Professional growth and modeling the way | .528 | .000 |
| Professional growth and inspiring a share vision | .522 | .000 |
| Professional growth and challenging the process | .514 | .000 |
| Professional growth and encouraging the heart | .507 | .000 |
| Professional growth and enabling other to act | .507 | .000 |
| Status and modeling the way | .527 | .000 |
| Status and inspiring a sharing vision | .520 | .000 |
| Status and challenging the process | .514 | .000 |
| Status and enabling others to act | .505 | .000 |
| Status and encourage the heart | .527 | .000 |

** The correction is significant at the .01 at level (2-tailed).

As Table 4 demonstrates, there was a positive correlation between teacher leadership components and teacher empowerment components of professional growth and status. The result was significant at .01 level ($.01 > .000$).

Table 4 indicates that there was a positive relationship between professional growth and teacher leadership components of modeling the way ($r = .52$), inspiring a share vision, ($r = .52$), challenging the process ($r = .51$), encouraging the heart ($r = .50$), and enabling other to act ($r = .50$). Likewise, there was a statistically positive relationship between teacher empowerment component of status and teacher leadership components of modeling the way ($r = .52$), inspiring a share vision ($r = .52$), challenging the process, ($r = .51$), enabling others to act ($r = .50$), and encouraging the heart ($r = .52$).

Table 5. Pearson Correlation Output for EFL Teachers' Leadership and Empowerment Components of Impact and Decision Making

| Criterion variables | Pearson correlation | Sig. |
|---|---------------------|------|
| Impact and modeling the way | .553 | .000 |
| Impact and inspiring a share vision | .547 | .000 |
| Impact and challenging the process | .540 | .000 |
| Impact and enabling other to act | .530 | .000 |
| Impact and encouraging the heart | .553 | .000 |
| Decision-making and modeling the way | .567 | .000 |
| Decision –making and inspiring a share vision | .565 | .000 |
| Decision –making and challenging the process | .568 | .000 |
| Decision –making and enabling others to act | .540 | .000 |

| | | |
|---|------|------|
| Decision-making and encouraging the heart | .567 | .000 |
|---|------|------|

** The correction is significant at the .01 level (2-tailed).

As Table 5 demonstrates, there was a statistically positive correlation between teacher leadership and teacher empowerment components of impact and decision-making. The result indicated there was a significant positive relationship between teacher empowerment component of impact and teacher leadership components of modeling the way ($r = .55$), inspiring a share vision ($r = .54$), challenging the process ($r = .54$), enabling other to act ($r = .53$), and encouraging the heart ($r = .55$).

Table 6. The Pearson Correlation Output for EFL Teachers' Leadership and Empowerment Components of Self-Empowerment and Autonomy

| Criterion variables | Pearson correlation | Sig. |
|---|---------------------|------|
| Self-empowerment and modeling the way | .542 | .000 |
| Self-empowerment and inspiring a share vision | .536 | .000 |
| Self-empowerment and challenging the process | .527 | .000 |
| Self-empowerment and enabling other to act | .515 | .000 |
| Self-empowerment and encouraging the heart | .542 | .000 |
| Autonomy and modeling the process | .637 | .000 |
| Autonomy and inspiring a share vision | .636 | .000 |
| Autonomy and challenging the process | .637 | .000 |
| Autonomy and enabling other to act | .636 | .000 |
| Autonomy and encourage the heart | .637 | .000 |

** The correction is significant at the .01 level (2-tailed).

According to Table 6, there was a positive correlation between teacher leadership and teacher empowerment components of self-empowerment and autonomy. The result indicated there was a significant relationship between teacher leadership and teacher empowerment components of self-empowerment and autonomy, ($p < .01$). Moreover, the correlation coefficient between self-empowerment and teacher leadership components of modeling the way ($r = .54$), inspiring a share vision ($r = .53$), challenging the process ($r = .52$), enabling other to act ($r = .51$), and encouraging the heart ($r = .54$) was significant. Likewise, the coefficient correlation between autonomy and teacher leadership components of modeling the way, inspiring a share vision, challenging the process, enabling others to act, and encouraging the heart ($r = .63$) was significant, too ($.01 > .000$).

Table 7. Descriptive Statistics Concerning the Three Variables for EFL Teachers

| | Perfectionism | Leadership | Empowerment |
|----------------|--------------------|---------------------|--------------------|
| N | Valid | 200 | 200 |
| | Missing | 0 | 0 |
| Mean | 95.31 | 119.10 | 25.60 |
| Median | 90.00 | 120.00 | 25.50 |
| Mode | 95.00 ^a | 123.00 ^a | 24.00 ^a |
| Std. Deviation | 26.72 | 31.25 | 5.56 |

| | | | |
|----------|--------|--------|-------|
| Variance | 714.21 | 976.82 | 30.95 |
|----------|--------|--------|-------|

According to Table 7, the mean of the participants' perfectionism, leadership, and empowerment equaled 95.31, 119.10 and 25.60, respectively and their medians equaled 90, 120 and 25.50. Standard deviation in each of the variables (perfectionism, leadership and empowerment) equaled to be 26.72, 31.25 and 5.56, respectively.

Table 8 shows the normality of all the variables (perfectionism, leadership, and empowerment). According to this table, the value of the test for the perfectionism equaled to 1.00 and the obtained *Sig.* was 0.85 and the value of the test for leadership equaled to 1.27 and the obtained level of significance was 0.07, and the value of the test for the empowerment equaled to 0.86 and the obtained level of the significance was 0.43, which in all the data, the value was greater than 0.05. So, perfectionism, leadership and empowerment were all normal variables.

| | | Perfectionism | Leadership | Empowerment |
|----------------------------------|-----------------------|---------------|------------|-------------|
| <i>N</i> | | 200 | 200 | 200 |
| Normal Parameters ^{a,b} | Mean | 95.31 | 119.10 | 25.60 |
| | <i>Std. Deviation</i> | 26.72 | 31.25 | 5.56 |
| Most Extreme Differences | Absolute | .08 | .11 | .07 |
| | Positive | .08 | .11 | .04 |
| | Negative | -.06 | -.05 | -.07 |
| Kolmogorov-Smirnov <i>Z</i> | | 1.00 | 1.27 | .86 |
| <i>Asymp. Sig. (2-tailed)</i> | | .26 | .07 | .43 |

a. Test distribution is Normal.

b. Calculated from data.

Regarding the other hypothesis, that is, there is no significant relationship between perfectionism and empowerment, the following analyses were run.

Table 9. Correlation for Perfectionism and Empowerment for EFL Teachers

| | | Perfectionism | Empowerment |
|---------------|------------------------|---------------|-------------|
| Perfectionism | Pearson Correlation | 1 | .80** |
| | <i>Sig. (2-tailed)</i> | | .00 |
| | <i>N</i> | 132 | 132 |
| Empowerment | Pearson Correlation | .80** | 1 |
| | <i>Sig. (2-tailed)</i> | .00 | |
| | <i>N</i> | 132 | 132 |

**Correlation is significant at the 0.01 level (2-tailed).

Table 9 shows the correlation between perfectionism and empowerment. According to this table, the correlation is 0.80 and the obtained level of the significance was found to be 0.00, which is less than 0.05. As a result, the null hypothesis is rejected. This means that there is a

significance correlation between perfectionism and empowerment. As perfectionism increases, empowerment of the participants increases, too.

Regarding the third research hypothesis; that is, there is not any significant relationship between leadership and empowerment, the Pearson Correlation analysis was run. Table 10 shows the correlation analysis for leadership and empowerment.

Table 10. Correlation for Leadership and Empowerment for EFL teachers

| | | Leadership | empowerment |
|-------------|------------------------|------------|-------------|
| Leadership | Pearson Correlation | 1 | .74** |
| | <i>Sig.</i> (2-tailed) | | .000 |
| | <i>N</i> | 132 | 132 |
| empowerment | Pearson Correlation | .74** | 1 |
| | <i>Sig.</i> (2-tailed) | .000 | |
| | <i>N</i> | 132 | 132 |

**Correlation is significant at the 0.01 level (2-tailed).

According to Table 10, the correlation was 0.74 and the p value was 0.000. As a result, the null hypothesis was rejected. This means that there is a significance correlation between leadership and empowerment. If one of them increases, the other will also increase.

Research hypothesis four was aimed at investigating whether there was a significant relationship between perfectionism and leadership. In order to test this hypothesis, a correlation was run between perfectionism and leadership.

Table 11. Correlation for Perfectionism and Leadership for EFL Teachers

| | | Perfectionism | leadership |
|---------------|------------------------|---------------|------------|
| Perfectionism | Pearson Correlation | 1 | .61** |
| | <i>Sig.</i> (2-tailed) | | .000 |
| | <i>N</i> | 200 | 200 |
| Leadership | Pearson Correlation | .61** | 1 |
| | <i>Sig.</i> (2-tailed) | .000 | |
| | <i>N</i> | 200 | 200 |

**Correlation is significant at the 0.01 level (2-tailed).

According to the table above, the correlation was 0.61 and the obtained level of the significance was found to be 0.00, which is less than 0.05. As a result, the null hypothesis was rejected. This means that there is a significance correlation between perfectionism and leadership. As perfectionism increases, participants' leadership increases, too.

Considering perfectionism and leadership as independent variables and empowerment as dependent variable, regression test was run.

Table 12. Model Summary of Regression Analysis

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|------------------|----------|-------------------|----------------------------|
| 1 | .86 ^a | .75 | .74 | 2.79 |

Predictors: (Constant), Perfectionism, leadership

According to Table 12, the correlation between the aforementioned variables equaled to be 0.86 and R Square equaled 0.75. For further statistics, an ANOVA was run, too.

Table 13. ANOVA Results of Regression Analysis

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 3049.08 | 2 | 1524.54 | 195.41 | .000 ^a |
| | Residual | 1006.43 | 129 | 7.80 | | |
| | Total | 4055.51 | 131 | | | |

Predictors: (Constant), Perfectionism, leadership

Dependent Variable: empowerment

According to this table, the F was found to be 195.41 with the *p* value of 0.000, which is less than 0.05. As a result, it can be concluded that the regression was meaningful.

Table 14. Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|---------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 5.98 | 1.03 | | 5.79 | .000 |
| | Leadership | .07 | .01 | .39 | 7.16 | .000 |
| | Perfectionism | .11 | .01 | .56 | 10.13 | .000 |

Dependent Variable: Empowerment

Table 14 depicts perfectionism and leadership regression coefficients on empowerment. Perfectionism and leadership's regression coefficient equaled 0.11 and 0.07 respectively. And the *p* value equaled 0.000, which is less than 0.05. As a result, independent variables (perfectionism and leadership) appeared to have significant effects on empowerment. Now, the data analysis for math teachers is presented below:

Table 15. Results of Pearson Correlation between Math Teachers' Leadership and Empowerment

| | | Teacher empowerment | Teacher leadership |
|---------------------|---------------------|---------------------|--------------------|
| Teacher empowerment | Pearson Correlation | 1 | .670 ^{**} |
| | Sig. (2-tailed) | | .000 |
| | N | 177 | 177 |

| | | | |
|--------------------|---------------------|--------|-----|
| Teacher leadership | Pearson Correlation | .670** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 177 | 177 |

** . Correlation is significant at the 0.01 level (2-tailed).

As Table 15 demonstrates, there was a positive correlation between teacher leadership and teacher empowerment, $r = .67$, and the result was significant at the 0.01 level ($p < .01$). Thus, the null hypothesis was rejected.

Table 16. The Pearson Correlation Output for Math Teachers' Leadership and Empowerment Components of Professional Growth and Status

| Criterion variables | Pearson correlation | Sig. |
|--|---------------------|------|
| Professional growth and modeling the way | .601 | .000 |
| Professional growth and inspiring a share vision | .602 | .000 |
| Professional growth and challenging the process | .604 | .000 |
| Professional growth and encouraging the heart | .607 | .000 |
| Professional growth and enabling other to act | .609 | .000 |
| Status and modeling the way | .609 | .000 |
| Status and inspiring a sharing vision | .539 | .000 |
| Status and challenging the process | .529 | .000 |
| Status and enabling others to act | .519 | .000 |
| Status and encourage the heart | .539 | .000 |

** The correction is significant at the .01 at level (2-tailed).

As Table 16 demonstrates, there was a positive correlation between math teacher leadership components and empowerment components of professional growth and status, and the result was significant at .01 level ($.01 > .000$). Table 16 indicates there was a positive relationship between professional growth and teacher leadership components of modeling the way ($r = .53$), inspiring a share vision, ($r = .53$), challenging the process ($r = .52$), encouraging the heart ($r = .51$), and enabling other to act ($r = .51$). Likewise, there was a statistically positive relationship between teacher empowerment component of status and teacher leadership components of modeling the way ($r = .53$), inspiring a share vision ($r = .53$), challenging the process, ($r = .52$), enabling others to act ($r = .51$), and encouraging the heart ($r = .53$).

Table 17. The Pearson Correlation Output for Math Teachers' Leadership and Empowerment Components of Impact and Decision Making

| Criterion variables | Pearson correlation | Sig. |
|---|---------------------|------|
| Impact and modeling the way | .533 | .000 |
| Impact and inspiring a share vision | .527 | .000 |
| Impact and challenging the process | .540 | .000 |
| Impact and enabling other to act | .550 | .000 |
| Impact and encouraging the heart | .573 | .000 |
| Decision-making and modeling the way | .597 | .000 |
| Decision –making and inspiring a share vision | .605 | .000 |

| | | |
|--|------|------|
| Decision –making and challenging the process | .608 | .000 |
| Decision –making and enabling others to act | .600 | .000 |
| Decision-making and encouraging the heart | .577 | .000 |

** The correction is significant at the .01 level (2-tailed).

As Table 17 demonstrates, there was a statistically positive correlation between teacher leadership and teacher empowerment components of impact and decision-making. The result indicates, there was a significant positive relationship between teacher empowerment component of impact and teacher leadership components of modeling the way ($r = .56$), inspiring a share vision ($r = .55$), challenging the process ($r = .55$), enabling other to act ($r = .54$), and encouraging the heart ($r = .56$).

Table 18. Pearson Correlation Output for Math Teachers' Leadership and Empowerment Components of Self-Empowerment and Autonomy

| Criterion variables | Pearson correlation | Sig. |
|--|---------------------|------|
| Self-empowerment and modeling the way | .652 | .000 |
| Self –empowerment and inspiring a share vision | .646 | .000 |
| Self-empowerment and challenging the process | .637 | .000 |
| Self-empowerment and enabling other to act | .576 | .000 |
| Self-empowerment and encouraging the heart | .576 | .000 |
| Autonomy and modeling the process | .676 | .000 |
| Autonomy and inspiring a share vision | .665 | .000 |
| Autonomy and challenging the process | .654 | .000 |
| Autonomy and enabling other to act | .654 | .000 |
| Autonomy and encourage the heart | .659 | .000 |

** The correction is significant at the .01 level (2-tailed).

According to Table 18, there was a positive correlation between teacher leadership and teacher empowerment components of self-empowerment and autonomy. The results indicated there was a significant relationship between teacher leadership and teacher empowerment components of self-empowerment and autonomy, ($p < .01$). Moreover, the correlation coefficient between self-empowerment and teacher leadership components of modeling the way ($r = .55$), inspiring a share vision ($r = .54$), challenging the process ($r = .53$), enabling other to act ($r = .52$), and encouraging the heart ($r = .55$) was significant. Likewise, the coefficient correlation between autonomy and teacher leadership components of modeling the way, inspiring a share vision, challenging the process, enabling others to act, and encouraging the heart ($r = .64$) was significant, too ($.01 > .000$).

Table 19. Descriptive Statistics Concerning the Three Variables for Math Teachers

| | Perfectionism | Leadership | Empowerment |
|----------|---------------|------------|-------------|
| <i>N</i> | Valid | 177 | 177 |
| | Missing | 0 | 0 |
| Mean | 98.31 | 115.10 | 27.60 |
| Median | 91.00 | 121.00 | 24.50 |

| | | | |
|----------------|--------------------|---------------------|--------------------|
| Mode | 96.00 ^a | 122.00 ^a | 26.00 ^a |
| Std. Deviation | 25.72 | 32.25 | 7.56 |
| Variance | 715.21 | 978.82 | 20.95 |

According to Table 19, the mean of the participants' perfectionism, leadership and empowerment equaled 98.31, 115.10, and 27.60, respectively. Table 20 shows the normality of all the variables (perfectionism, leadership, and empowerment) as collected from math teachers.

Table 20. Kolmogorov-Smirnov Test for All Variables for Math Teachers

| | | Perfectionism | Leadership | Empowerment |
|----------------------------------|----------------|---------------|------------|-------------|
| <i>N</i> | | 177 | 177 | 177 |
| Normal Parameters ^{a,b} | Mean | 99.31 | 117.10 | 97.60 |
| | Std. Deviation | 29.77 | 39.77 | 8.77 |
| Most Extreme Differences | Absolute | .07 | .19 | .08 |
| | Positive | .07 | .17 | .07 |
| | Negative | -.07 | -.07 | -.08 |
| Kolmogorov-Smirnov Z | | 1.07 | 1.26 | .87 |
| Asymp. Sig. (2-tailed) | | .29 | .06 | .47 |

a. Test distribution is Normal.

b. Calculated from data.

In this section the results related to the research hypotheses germane to math teachers are presented. Regarding the next hypothesis, that is, there is not any significant relationship between perfectionism and empowerment among math teachers, the following analyses were run.

Table 21. Correlation for Perfectionism and Empowerment for Math Teachers

| | | Perfectionism | Empowerment |
|---------------|---------------------|---------------|-------------|
| Perfectionism | Pearson Correlation | 1 | .81** |
| | Sig. (2-tailed) | | .000 |
| | <i>N</i> | 177 | 177 |
| Empowerment | Pearson Correlation | .81** | 1 |
| | Sig. (2-tailed) | .000 | |
| | <i>N</i> | 177 | 177 |

**Correlation is significant at the 0.01 level (2-tailed).

Table 21 shows the correlation between perfectionism and empowerment. According to this table, the correlation was 0.81 and the obtained level of the significance was found to be 0.000, which is less than 0.05. As a result, the null hypothesis was rejected. This means that there is a significance correlation between perfectionism and empowerment. As perfectionism increases, empowerment of the participants increases, too.

The next research hypothesis states that "there is not any significant relationship between leadership and empowerment among math teachers." Table 22 shows the correlation analysis for leadership and empowerment.

Table 22. Correlation for Leadership and Empowerment for Math Teachers

| | | Leadership | empowerment |
|-------------|------------------------|------------|-------------|
| Leadership | Pearson Correlation | 1 | .79** |
| | <i>Sig.</i> (2-tailed) | | .000 |
| | <i>N</i> | 177 | 177 |
| Empowerment | Pearson Correlation | .79** | 1 |
| | <i>Sig.</i> (2-tailed) | .000 | |
| | <i>N</i> | 177 | 177 |

**Correlation is significant at the 0.01 level (2-tailed).

According to Table 22, the correlation was 0.79 and the p value was 0.000. As a result, the null hypothesis was rejected. This means that there is a significance correlation between leadership and empowerment. If one of them increases, the other will also increase.

The next research hypothesis reads whether there is any significant relationship between perfectionism and leadership. In order to test this hypothesis, a correlation was run between perfectionism and leadership in math teachers.

Table 23. Correlation for Perfectionism and Leadership for Math Teachers

| | | Perfectionism | Leadership |
|---------------|------------------------|---------------|------------|
| Perfectionism | Pearson Correlation | 1 | .81** |
| | <i>Sig.</i> (2-tailed) | | .000 |
| | <i>N</i> | 177 | 177 |
| Leadership | Pearson Correlation | .81** | 1 |
| | <i>Sig.</i> (2-tailed) | .000 | |
| | <i>N</i> | 177 | 177 |

**Correlation is significant at the 0.01 level (2-tailed).

According to the table above, the correlation was 0.81 and the obtained level of the significance was found to be 0.000, which is less than 0.05. As a result, the null hypothesis is rejected. This means that there is a significance correlation between perfectionism and leadership. As perfectionism increases, participants' leadership increases, too.

In order to test the penultimate hypothesis, considering perfectionism and leadership as independent variables and empowerment as dependent variable, regression test was run.

Table 24. Model Summary for Regression Analysis

| Model | <i>R</i> | <i>R</i> Square | Adjusted <i>R</i> Square | <i>Std.</i> Error of the Estimate |
|-------|------------------|-----------------|--------------------------|-----------------------------------|
| 1 | .66 ^a | .79 | .79 | 2.79 |

Predictors: (Constant), Perfectionism, leadership

According to Table 24, the correlation between the aforementioned variables equaled to be 0.66 and R Square equaled 0.79. For further statistics, an ANOVA was run, too.

Table 25. ANOVA Results of Regression Analysis

| Model | | Sum of Squares | <i>df</i> | Mean Square | <i>F</i> | <i>Sig.</i> |
|-------|------------|----------------|-----------|-------------|----------|------------------|
| 1 | Regression | 6046.06 | 2 | 1624.64 | 199.46 | .00 ^a |
| | Residual | 1006.46 | 169 | 7.60 | | |
| | Total | 4066.56 | 161 | | | |

Predictors: (Constant), Perfectionism, leadership

Dependent Variable: empowerment

According to this table, the *F* was found to be 199.46 with the *p* value of 0.000, which is less than 0.05. As a result, it can be concluded that the regression was meaningful.

Table 26. Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized | <i>t</i> | <i>Sig.</i> |
|-------|---------------|-----------------------------|-------------------|--------------|----------|-------------|
| | | <i>B</i> | <i>Std. Error</i> | Beta | | |
| 1 | (Constant) | 4.68 | 1.06 | | 5.76 | .000 |
| | Leadership | .06 | .01 | .39 | 7.66 | .000 |
| | Perfectionism | .16 | .01 | .56 | 10.66 | .000 |

Dependent Variable: Empowerment

Table 26 depicts perfectionism and leadership regression coefficients on empowerment. Perfectionism and leadership's regression coefficient equaled 0.16 and 0.06, respectively. And the *p* value equaled 0.000, which is less than 0.05. As a result, independent variables (perfectionism and leadership) were shown to have significant effects on empowerment.

Finally an independent sample t-test was run to determine the differences between the math and English teachers. Based on the results, it can be stated that since $p = .0001$, which is less than our chosen significance level ($\alpha = 0.05$), we can reject the last null hypothesis, and conclude that there was a statistically significant difference between math and English teachers regarding their leadership. ($t_{315.846} = 15.047, p < .001$). Similarly, there was a statistically significant difference between math and English teachers concerning their empowerment. ($t_{316.855} = 16.067, p < .001$). However, no statistically significant difference was found between math and English teachers regarding their perfectionism. ($t_{316.996} = 16.117, p < .001$).

Discussion and conclusion

Today, school collaborative environments, school districts, and envision turned in to teachers' leaders (Vooget & Knezek, 2008). Teacher leadership seems as a value in school culture, visible, negotiated, and shared; moreover, it is the ability to change colleagues (Vooget & Knezek, 2008). Leadership shaped beliefs system and integrated individual to the structure of school. On the other hand, whenever teachers make decisions and choose their professional learning, they feel empowerment. In addition, empowered teachers could develop their competence, and grow in their problems. Likewise, teacher empowerment helped teachers be powerful in their education lives, to control their world and to improve pedagogy. Thus, leadership is one effective factor in the classroom and focus as to its relationship with teacher

empowerment is proved (Squire-Kelly, 2012). Moreover, in relation to these effective issues, perfectionism is a key factor in teachers' performance.

Birjandi and Bagherzadekazemi (2010) indicated that perfectionism was an approach to developing questioning attitudes in teachers, and had to do with understanding of pedagogy and teaching development. Therefore, this study was attempted to find that if there was a significant relationship between teacher leadership and empowerment and their perfectionism.

Leadership is a new concept which has been examined by some researchers only. Bogler (1994) indicated that empowerment leads teachers to make decision and improve their profession, control their daily schedules, and have a high level of teaching. On the other hand, Rubin et al. (2010) found out that teacher leadership and empowerment would improve students learning. Moreover, they concluded that leadership was one of the most important factors in school success. On the other hand, Gagne and Deci (2005) found that empowered teachers tried to do their best when they were motivated and satisfied. Avey et al. (2008) concluded that there was a significant relationship between style of leadership for human resources, political, and teacher empowerment. Likewise, Mitchel (2010) believed that the leadership that understood changes affected on teacher empowerment (cited in Hashemiannezhad, 2014). And also Birjandi and Bagherzadekazemi (2010) found out there was relationship between Iranian EFL teachers' perfectionism and their professional success.

Based on the previous studies on teacher leadership, empowerment, and perfectionism, this study examined the relationship between Iranian EFL teachers' leadership, empowerment, and their perfectionism among both math and English teachers. Based on the results of this study, there were strong and significant correlations between the three variables: leadership, perfectionism and empowerment. The results of this study are not to some extent in line with the findings of Byron (2005) who found no significant correlations between empowerment and leadership of the English teachers, and very congruent with Cagle's (1998) findings which showed high correlations between leadership and empowerment and intellectual excitement.

This study hoped that some contribution is made to the development of language learning and teaching. Teachers engage in teacher leadership in different ways and their structured ideas could affect their future action in the areas of leadership. These actions will affect society far beyond environments of classroom, school, and educational community. These teachers are on front lines with students on a daily basis and their actions and perceptions directly impact on students' development emotionally and cognitively. The findings of this study will assist teachers, both math and English teachers, and others in educational community to understand the perceptions and ideas they have concerning their leadership, empowerment, and their concept of perfectionism. Understanding teachers' perceptions of their leadership will eventually lead to higher satisfaction and higher retention rates. The need of teachers to set up and take the leadership role is necessary to make improvement within the teaching profession to enhance teacher satisfaction. Generally, considering the predictability of teacher leadership on empowering them can cause productivity for educational system with choosing appropriate and correct approach for managing and teaching. In addition, the findings that perfectionism is related to leadership may be important for educators and leaders responsible for curriculum development. Teachers need to expose to leadership development that will effect on their ability to make fair and informed judicious. Ricketts (2008) believed that leaders in organizations need to think critically and creatively, practice decision making, be problem solvers, commit to lifelong learning, persuade others to practice these skills, and maximize mental assessment, and compensate for mental limitation. Considerably, activities that teachers who participate as leader within students' organization will foster perfectionism among leaders.

Teacher leadership is very useful in the classroom, the school, and the communication at large. Many are advocating teacher leadership. Teacher leaders will insist schools create innovative leadership structures and participate in organizational improvement. Teachers must work and communicate with parents, administrators, and other teachers to create communities leaders and learners.

It was found in the present study that math and English teachers' perfectionism was different significantly. It is worth mentioning that the role of biology and environmental factors in perfectionistic tendencies should not be ignored. Perfectionistic inclinations are evident in childhood and are believed to stay quite constant over time. Some interventions may decrease levels of perfectionism in certain individuals, but it seems that reducing perfectionistic beliefs and behaviors may also be unfavorable for some. The results concerning biology and perfectionism suggest that there may be a genetic component to definite personalities of perfectionism. Although the findings on the subject of perfectionism in parents and children propose that specific traits may be heritable, they also recommend that the child's environment may have an impact on perfectionism. The results from various research studies put forward that parenting styles and family characteristics may be significant in the development of perfectionistic inclinations, and that parenting may influence differing perfectionism traits for males and females. The characteristics as well as thought of English teachers along with the environment in which they have grown up are definitely different which may in turn resulted in varying degrees of perfectionism between math and English teachers in this study.

As for the limitations of the present study, there is some limitation in using teacher leadership and empowerment in institutes. More research is needed to identify problems and issues that inhibit teacher leadership at schools and institutes, such as administrators' perceptions that inhibit teacher leadership development.

Furthermore, this study was conducted with Iranian EFL teachers who studied English majors (teaching, translation, or literature) and who taught in English institutes. Further studies are demanded to be on EFL/ESL teachers at schools whose majors may not be English. It is recommended for further research to be conducted via wider questionnaires to evaluate more aspects of perfectionism with teacher leadership concept.

There has been a clear-cut relationship between the three variables of this study so far. Thus, the current study can add to the literature on perfectionism, motivation and self-efficacy. Based on the findings of this study, one can conclude that there is a relationship between these variables two by two.

The findings of this study can be useful if we want to help teachers develop and improve their efficacy and their perfectionism. The present study can, therefore, help researchers and teacher educators recognize the relationships in their classes. Consideration of individual differences is a must for any language teachers. The suggestions arising from this study are presented with the hope that other researchers will find them interesting enough to pursue in the future, as a research starts where another has ended and ends where another starts. Firstly, in order to obtain more generalizable results, this research can be replicated among different samples not necessarily the same level or age. Secondly, other age groups can be investigated too. Also, other studies can be carried out to investigate the effects of the variables and not necessarily investigating the relationships among them that were not measured focally in the present study. Moreover, since the present study focused on Iranian participants, similar studies could be done with other nationalities.

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