

## The Relationship between Distributed Leadership and Work Self-Efficacy with the Mediating Role of Academic Optimism of the Teacher

DOI: 10.15804/tner.2019.58.4.13

### Abstract

The purpose of this study was to investigate the relationship between distributed leadership and job self-efficacy with the mediating role of academic optimism of the teacher. This study is applied and correlation research based on structural equation modeling. 281 teachers of Zahedan city were selected using stratified random sampling. To collect information, three questionnaires were used: distributed leadership (Gholami, Sahranavard, & Azizi, 2014), job self-efficacy (Riggs & Knight, 1994) and teacher's academic optimism (Beard, Hoy, & Woolfolk, 2010). For data analysis the Pearson correlation coefficient was calculated using SPSS and structural equation modeling was done using Lisrel software. Based on the results the direct effect of distributed leadership on job self-efficacy ( $\beta=0.33$ ), the direct effect of distributed leadership on teacher's academic optimism ( $\beta=0.76$ ) and the direct effect of teacher's academic optimism on job self-efficacy ( $\beta=0.42$ ) was found to be significant. The indirect effect of distributed leadership on job self-efficacy was also found to be significant with the mediating role of organizational laziness ( $\beta=0.352$ ). Therefore, it can be concluded that through applying a distributed leadership style in schools (with regard to trust-based leadership, a democratic climate, comprehensive support, and teachers' professional development) the level of teachers' academic optimism increases. With an increase in teachers' academic optimism, their job performance can be expected to improve.

**Keywords:** *Distributed Leadership, Teacher's Academic Optimism, work Self-Efficacy*

## **Introduction**

Work self-efficacy was first proposed by Cherniss in 1993. He introduced the concept of job-related self-efficacy, which is identified as belief in the ability to properly implement the professional role (Hassani & Tima, 2013). Lubbers, Loughlin, and Zweig (2003) state that work self-efficacy is cognitive evaluation of the abilities needed for better performance of a job. Factors affecting the performance of the work of a teacher are self-efficacy beliefs in general, and self-efficacy in teaching. Tschannen-Moran & Woolfolk Hoy (2001) define teacher self-efficacy as his/her judgment about his/her ability to create positive outcomes for student learning and engaging them in academic affairs, even with troubled or non-motivated students. Previous studies indicate that job-related self-efficacy is an important predictor for career exploration, job maturity; job stability patterns, job satisfaction and commitment, and work effectiveness can affect job performance through these constructs (Zolhayat, Noorbakhsh, & Sepasi, 2017). Teachers with positive self-efficacy reported higher levels of commitment and enthusiasm for their work, and lower levels of stress (Kavehei, Ashouri, & Habibi, 2014).

One of the factors affecting teachers' job-related self-efficacy might be the leadership style of the school principals. A distributive leadership style is one of the modern leadership styles. A distributive leadership style is a form of leadership based on trust and full authority relegation with emphasis on the role of members in progress towards goals (Iles & Feng, 2011). Distributive leadership leads to extensive and participatory decision-making processes so that responsibilities are implemented in-group instead of individually. This increased participation in decision-making by more members leads to greater commitment to the organization's goals and strategies (Harris, 2004). Distributed leadership environments provide employees with the opportunity to set goals for their career and professional growth; provide opportunities for informal, formal, and complementary learning; and ultimately improves employee performance (Grant & Carl, 2011). In schools, a distributive leadership approach means sharing power and performance of tasks by employees and teachers (Robinson, 2008). In distributive leadership, leadership occurs through the teachers, school trustees, and even students are allowed and trusted to guide the classroom and learning activities as the teacher (Gronn, 2009). Shakir (2011) argues that effectiveness and improvement in schools can be achieved when leadership power is distributed among stakeholders. Leithwood et al. (2007) believe that what is evident in a distributive leadership paradigm is the increasing power of teachers. Experimental evidence indicates that distributive leadership is associated with improved relationships in schools, increased

participation and responsibility, job satisfaction, professional and organizational commitment, and self-efficacy of the teacher (Mascall, Leithwood, Straus, & Sacks, 2008).

Academic optimism is a new psychological construct that Hoy, Tarter and Woolfolk Hoy (2006) put forward which includes three components of the collective efficacy of a teacher, the trust of teachers in parents and students, and academic emphasis. A teacher's sense of efficacy is defined by his or her judgment of his or her ability to achieve the desired outcomes of classroom participation and student learning, even with those that are stubborn and non-motivated. Teachers' trust in students and parents includes teachers' feelings that students and parents are trustworthy, competent, truthful, and receptive. Academic emphasis denotes the teacher's belief about the academic achievements of students and their focus on learning and academic assignments (Woolfolk Hoy, Davis, & Pape, 2006).

The model of academically optimistic teachers reflects people with a humanitarian and trustworthy approach to managing students, helping them plan and evaluate their own work, to benefit from informal assessments. Such teachers are overworked, accept parents in the classroom, energize their students, help them and tend to cooperate and bond rather than pressure and punish (Badri Gargari, Beyraami, & Gholaami, 2015). Studies show that the construct of academic optimism helps create a positive school environment. In addition, such an environment causes development of teachers' self-efficacy (Hoy et al., 2006). Bevel and Mitchell (2012) concluded that in schools with high academic optimism, there is trust among teachers, students, and parents towards each other, and such trust creates empathy among them, the outcome of which is the academic achievement of the students.

As the literature reviewed indicates, some research has been conducted on distributive leadership style, occupational self-efficacy, and academic optimism of teachers. However, studies investigating the relationship between these three variables at the same time are rare. The research gap in this area and the desire to attempt to identify factors affecting promotion of the occupational performance of teachers was the main motive for this research. The reason is that if the functional significance of these variables in increasing and improvement of performance of teachers is considered, a step could be taken towards greater academic achievement of students. Therefore, the current research attempts to answer the question: is there a relationship between distributive leadership and job-related self-efficacy of teachers with the mediating role of the teacher's academic optimism?

## **Method**

The current study is experimental in terms of the objective and correlational, based on a structural equation model in terms of methodology. The statistical population included 1041 first high school teachers (482 males and 559 females) in Zahedan city. 281 teachers, consisting of 130 males and 151 females, were randomly selected keeping proportion for gender and using Cochran's sampling formula. Three questionnaires were employed to collect the data:

- A) *Distributive Leadership Questionnaire (Gholami, Sahranavard, & Azizi, 2014)*: The questionnaire consisted of 25 items and 4 dimensions of Teacher professional development (11 items), Confidence-based leadership (3 items), Democratic climate (4 items), and Overall support (7 items). It was organized on a 5-point Likert scale from very little to too much. The minimum and maximum means were 1 and 5, respectively. The mean closer to 5 is a sign of the use of a more distributive leadership style in the school.
- B) *Job self-efficacy Questionnaire (Riggs & Knight, 1994)*: The questionnaire consisted of 31 items and 4 dimensions of Individual self-efficacy beliefs (10 items), Expectation of individual outcomes (8 items), Collective self-efficacy beliefs (7 items), and Expectation of collective outcomes (6 items). It was organized on a 5-point Likert scale from "quite disagree" to "quite agree". The minimum and maximum means of the questionnaire were 1 and 5, respectively. A mean closer to 5 is a sign of more Job-related self-efficacy.
- C) *Teacher's academic optimism Questionnaire (Beard, Hoy, & Woolfolk, 2010)*: The questionnaire consisted of 11 items and 3 dimensions of Teacher Efficiency (4 items), Parent and Student Confidence (4 items), and Academic Emphasis (3 items). It was organized on the 5-point Likert scale from "quite disagree" to "quite agree", being represented by scores 1 and 5, respectively. The minimum and maximum mean were 1 and 5, respectively. The closer to 5 mean it is a sign of more teacher's academic optimism.

Using the Cronbach's alpha test, the reliability was calculated, and for distributive leadership (0.942), job-related self-efficacy (0.775) and teacher's academic optimism (0.88) respectively. Descriptive statistics, including frequency, percentage, mean, standard deviation, skewness and kurtosis, and inferential statistics, involving the Pearson correlation coefficient and a structural equation model, were employed to analyze the data in SPSS21 and Lisrel software.

## Findings

Structural equation modeling was used to investigate the hypotheses of the study. Table 1 represents descriptive indexes of variables including mean, standard deviation, and skewness and kurtosis.

**Table 1.** Descriptive statistics for the study variables

Variable	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Distributive Leadership	1.65	5	3.806	0.637	-0.822	0.558
Academic optimism	1	5	3.876	0.691	-0.799	0.740
Job self-efficacy	2.2	5	3.184	0.434	1.120	1.218

In causal modeling, the distribution of variables should be normal. Thus, the absolute value of the skewness and kurtosis of the variables should not be greater than 2. As shown in Table 1, the absolute value of the skewness and kurtosis of all variables is in line with the desired standard. Causal modeling assumes a normal distribution. In addition, before designing structural equation modeling, the relationship between the variables of the study was investigated by a Pearson correlation coefficient test. A significant relationship was observed between distributive leadership, teacher's academic optimism and job self-efficacy ( $r=0.541$  and  $0.387$ , respectively), while teacher's academic optimism was positively related to job self-efficacy ( $r=0.444$ ). Structural equation modelling was used for evaluating the relationship between the variables of the study. Model fit was assessed before investigating the assumptions of the study. The size of the model fit was utilized in determining the relationship between overt and covert variables. According to researchers, fit indexes include Goodness-of-Fit Index (GFI), comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Root Mean Residual (RMR). Regarding the last three indexes, the appropriate amounts of fit are less than  $0/8$ ,  $0/08$ , and  $0/05$  respectively. As shown in Table 2, the fit results are appropriate.

**Table 2.** Fit indexes of the theoretical model of the study

Index	Amount achieved in the model
Goodness of Fit (GFI)	0.92
Root Mean Residual (RMR)	0.037
comparative Fit Index (CFI)	0.94
Root Mean Square Error of Approximation (RMSEA)	0.072

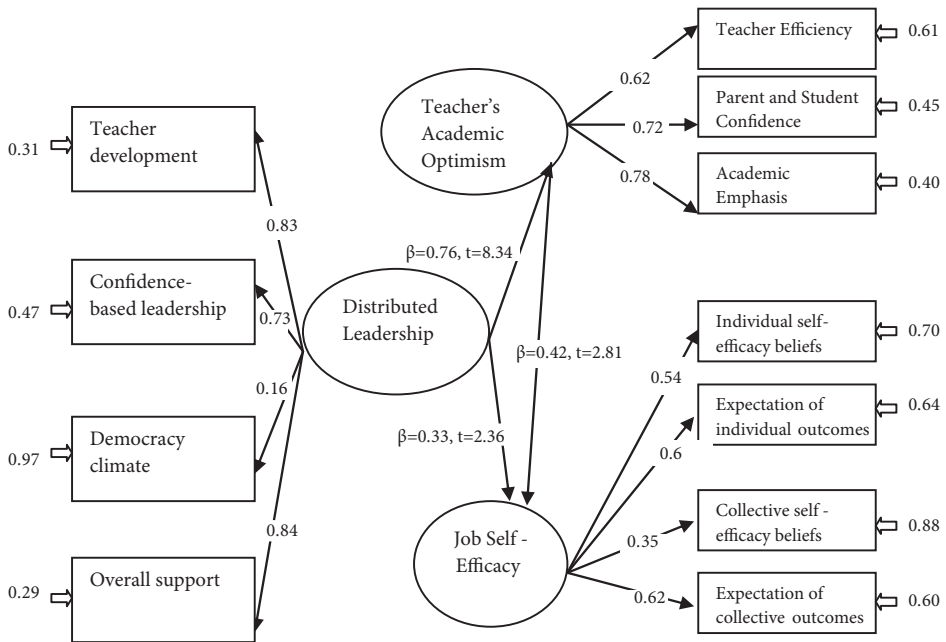


Figure 1. Fitted model of the study (standard coefficients)

## Discussion

The present study aimed to investigate the relationship between distributed leadership and job self-efficacy with the mediating role of teacher’s academic optimism. The findings indicated a positive and significant relationship between distributed leadership and job-related self-efficacy of teachers. It might said that managers who select a distributed leadership style to manage their school affairs, may increase their teachers’ empowerment. It may be that distributive and collaborative leaders increase individuals’ motivation by empowering them and creating organic structures rather than mechanical structures in the organization. Principals with a distributed leadership style align personal goals with organizational goals and avoid organizational and work-related problems such as wordlessness, lack of interest, lack of creativity, and dissatisfaction. In fact, distributive leadership can enhance teachers’ self-efficacy by creating school organizational conditions such as participatory decision making, teamwork, teacher collaboration, and an

open and reliable environment (Farahbakhs & Rasouli, 2019). Sun and Xia (2018) found that leadership styles that enhance employee engagement and relationships play a key role in enhancing employee empowerment and self-efficacy. Unterrainer et al. (2017) concluded that job-related self-efficacy can be influenced by a distributed leadership style.

The second finding showed that there is a positive and significant relationship between distributed leadership and teacher's academic optimism. It can be accepted that distributive leadership is shared leadership which distributes the leadership tasks among individuals and existing roles in the organization. Handing over leadership responsibilities to school teaching staff requires mutual trust between leadership and members. School principals who apply a distributed leadership style create a climate of intimacy and trust through developing human communications at the school. As the trust of principals and teachers increases, so the teachers' motivation and optimism increases (Beycioglu, Ozer, & TayyarUgurlu, 2012). Mascall et al. (2008) in their survey of 1640 schools considered distributive leadership as an effective factor for improvement of academic optimism among teachers. Chang (2011) in a survey of 1500 Taiwanese teachers found that distributive leadership not only has a positive significant relationship with academic optimism, but that it also indirectly increases student achievement and makes schools more effective.

The third finding showed that there is a positive and significant relationship between teacher's academic optimism and job self-efficacy. It seems that academic optimism builds on the positive belief in teachers that they can do their job by emphasizing teaching and learning, by trusting in the involvement of parents and students, and by believing in their capacity and efficiency to overcome problems and failures. Thus, they can perform well and improve school effectiveness and student achievement (Woolfolk Hoy, et al., 2006). Nelson (2012) found teachers who have higher academic optimism feel greater self-efficacy in performing their duties. Badri Gargari et al. (2015) found that teachers' job self-efficacy can be influenced by their academic optimism.

The fourth finding showed that there is a positive and significant relationship between distributed leadership and job-related self-efficacy with the mediating role of teacher's academic optimism. In this style of leadership, the role of leadership is at the level of supervisors who only oversee the process of engaging teachers to carry out activities and see teachers as leverage to accomplish goals so that they themselves can make the right decisions and determine how to do things. This creates motivation and academic optimism in teachers (Williams, 2010). When teachers are optimistic, they make academic affairs their priority and have high

expectations for the success of their students (Goddard et al., 2000). In addition, when the teachers are optimistic, they trust in their abilities in teaching and in parents for their support for the classroom, and they feel job-related self-efficacy (Woolfolk Hoy et al., 2006).

## **Conclusion**

In summary, distributed leadership is positively and significantly associated with job-related self-efficacy, and both directly and indirectly with the mediating role of the teacher's academic optimism. Considering the findings of the research, it is suggested that in-service distributive leadership style courses are held for the principals of schools so that they realize its foundations, goals, significance, and outcomes. It is also suggested that school principals should offer more authority and more support for teachers and teams, and improvement of the atmosphere of trust and confidence in schools is recommended. This study was limited to a specific location of Iran in a spatial sense; it is clear that the views of Zahedan city teachers cannot be fully representative of the views of staff throughout the country, which limits the spatial generalization of these research findings. In order to increase the generalization power of the research findings, similar research should be conducted in other cities and countries and on other staff.

## **References**

- Badri Gargari, R., Beyraami, M., & Gholaami, S. (2015). Academic Optimism, Occupational Goal Orientation, and Job Satisfaction among Teachers. *Quarterly Journal of Education*, 31(2), 71–89.
- Beard, KS., Hoy, WK., & Woolfolk Hoy, A. (2010). Academic optimism of individual teachers: Confirming a new construct. *Teaching and Teacher Education*, 26(5), 1136–1144.
- Bevel, RK., Mitchell RM. (2012). The effects of academic optimism on elementary reading achievement, *Journal of Educational Administration*, 50(6):773–787.
- Chang H. (2011). A study of the relationships between distributed leadership, teacher academic optimism and student achievement in Taiwanese elementary schools. *School Management and Leadership*, 31(5), 491–515.
- Goddard, R., Hoy, W., & Hoy, A. (2000). Collective Teacher Efficacy: Its Meaning, Measure, and Impact on Student Achievement. *American Educational Research Journal*, 37(2), 479–507.
- Grant, CP., Carl, P. (2011). *The Relationship between distributed leadership and principals*



- leadership effectiveness in North Carolina.*, Thesis for the degree of doctor of philosophy, North Carolina State university.
- Gronn, P. (2000). Distributed Properties. A New Architecture for Leadership. *Educational Canadian Journal of Education*, 28(3), 317–338.
- Harris, A. (2004). Distributed leadership and school improvement. *Educational Management Administration & Leadership*, 32(1), 11–24.
- Hassani, H., Tima, P. (2013). Investigating the Interactive Role of Accountability and Job Self-Efficacy on Organizational Citizenship Behavior and Political Behavior. *Journal of Public Administration*, 5(1), 89–110.
- Hoy, WK., Tarter, LJ., & Woolfolk Hoy, A. (2006). Academic optimism: A second order confirmatory analysis, In Hoy, WK., Misker, CG. (Eds.), *Contemporary issues in educational policy and school outcomes*, Greenwich: Information Age Publishing.
- Iles, P., Feng, Y. (2011). Distributed leadership, knowledge and information management and team performance in Chinese and Western groups. *Journal of Technology Management in China*, 6(1), 26–42.
- Kavehei, T., Ashouri, A., & Habibi, M. (2014). Predicting job satisfaction based on self-efficacy beliefs, teachers' sense of efficacy, job stress and hierarchy of needs in exceptional children's teachers at Irestan province. *Exceptional Education*, 4(126), 5–15.
- Leithwood, K., Mascall, B., Strauss, T., Sacks, R., Memon, N. and Yashkina, A. (2007). Distributing leadership to make schools smarter: taking the ego out of the system. *Leadership and Policy in Schools*, 6(1), 37–67.
- Lubbers, R., Loughlin, C., & Zweig, D. (2003). Young workers job self-efficacy and affect: Pathways to health and performance. *Journal of Vocational Behavior*, 67(1), 199–214.
- Mascall, B., Leithwood, K., Straus, T., & Sacks, R. (2008). The relationship between distributed leadership and teachers' academic optimism. *Journal of Educational Administration*. 46(2), 214–228.
- Nelson, L.M. (2012). *The Relationship Between Academic Optimism and Academic Achievement in Middle Schools in Mississippi*. A Dissertation Submitted to the Graduate School of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy, The University of Southern Mississippi.
- Robinson, V. (2008). Forging the links between distributed leadership and educational outcomes. *Journal of Educational Administration*, 46(2), 241–256.
- Shakir, FJ. (2011). Perceptions towards Distributed Leadership in School Improvement. *International Journal of Business and Management*, 6(10), 256–265.
- Sun, A., Xia, J. (2018). Teacher-perceived distributed leadership, teacher self-efficacy and job satisfaction: A multilevel SEM approach using the 2013 TALIS data. *International Journal of Educational Research*, 92(2018), 86–97.
- Tschannen-Moran, M., Woolfolk Hoy, AE. (2001). Teacher Efficacy: Capturing an Elusive Construct. *Teaching and Teacher Education*, 17(7), 783–805.
- Unterrainer C., Jeppesen HJ., & Jønsson TF. (2017). Distributed Leadership Agency and Its Relationship to Individual Autonomy and Occupational Self-Efficacy: a Two Wave-Mediation Study in Denmark. *Humanistic Management Journal*, 2(1), 57–81.

- Woolfolk Hoy, A., Davis, H., & Pape, S. (2006). Teachers' knowledge, beliefs, and thinking. In Alexander, PA. Winne, PH., (Eds.), *Handbook of Educational Psychology*. Mahwah, NJ: Erlbaum.
- Zolhayat, MR., Noorbakhsh, P., & Sepasi, H. (2017). Relationship between Self-efficacy in Career Decision Making & Ethical Climate with Job Effectiveness. *Journal of Ethics and Society*, 12(2), 58-66.