Towards teacher innovative work behavior: A conceptual model

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Abstract: To discover the predictors of teacher innovative work behavior, the authors surveyed 232 EFL teachers. Three instruments, including Urtecht Work Engagement Scale questionnaire, Dimensions of Learning Organization Questionnaire (Marsick & Watkins, 2003), and Innovative Work Behavior questionnaire were employed to examine the predictors of teachers' innovation. The results demonstrated that learning organization not only positively predicted work engagement but also it acted as a significant positive predictor of innovative work behavior. Additionally, analysis of the data provided evidence on work engagement as an antecedent of teachers’ innovative work behavior. Finally, work engagement partially mediated the relationship between learning organization and innovative work behavior.

Keywords: learning organization; work engagement; innovative work behavior

1. Introduction

These days, advances in technology, society, and economics in addition to the changes in organizational structures have necessitated innovations (Anderson et al., 2004). Innovation makes a salient difference in an individual's performance and helps achieve success and survival. Innovations are paramount and beneficial for any organization so as to obtain and keep a competitive advantage (Ghardashi et al., 2019). Schools are particularly in desperate need of innovations in order to gain a competitive edge over others (Hsiao et al., 2009). Teachers play a significant role in the success of such educational organizations by boosting the success of

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PUBLIC INTEREST STATEMENT

Nowadays schools compete with each other to attract more students, keep their professional status, and reach their target market. Teachers are major stakeholders without whom the success of schools is impossible. One of the factors which trigger teachers’ and students’ achievement is teacher innovative work behavior. In fact, with the boom in technological and social developments, and with today's competitive market, teacher innovation is a critical issue for the development and sustainability of schools. Despite its importance, factors leading to innovation have scarcely been addressed. The present research aims at exploring the factors contributing to teacher innovative work behavior. This research will be of special interest to teachers, teacher educators, policymakers, and administrators throughout the world.
students and they are the most critical agents in enhancing the academic and social success of schools (Balker, 2015). Great teachers exert positive effects on their students not only by their innovative behavior and creative teaching strategies (Mahajan & Kaushal, 2017) but also by helping students reveal their creativity in the learning process (Kaycheng, 2016). Besides, an innovative atmosphere by the teacher provokes students’ interest in learning (Khikmah, 2019) and improves their achievement (Baghaei & Riasati, 2013). Given the many roles of teachers in facilitating and promoting school change and improvement, their innovative behaviors are crucial (Wamalwa & Wamalwa, 2014).

In broad terms, there are various determinants of innovative behavior among which the work environment (Tri et al., 2019) and creativity climate (Sutanto, 2017) seem paramount. Additionally, learning organization has a direct effect on teachers’ innovation (Stoll & Kools, 2017). Besides, the existence of learning organization culture has been proven to influence the growth and development of schools (Timanson & Costa, 2016). Structure and culture are so significant in the learning organization as they can facilitate new ideas and innovation at the workplace (Boukis, 2016). To make it clear, a learning organization contains activities that foster learning at the individual or organizational level. A learning organization has three fundamental elements which are, namely, a supportive learning environment, concrete learning process, and leadership behaviors (Garvin et al., 2008). It creates continuous learning. It provides inquiry. Besides, it encourages team learning. It also shares and captures learning developments. Furthermore, it empowers staff towards a collective vision. Besides, it connects the organization to its environment. Finally, it provides strategic leadership learning. Thus, these seven dimensions should be well represented in the culture of an organization that follows a learning organization (Watkins & Marsick, 1993). In line with the triggering impact of learning organizations in initiating and sustaining change and innovation, educators and policymakers, too, have redefined schools as learning organizations (Stoll & Kools, 2017) to tackle the changes in the world today (Tichnor-Wagner et al., 2016).

Besides, teachers’ work engagement drives their innovation (Kong & Li, 2018). In fact, the more professionally engaged individuals are, the more open they are to novel ideas (Gawke et al., 2017) and the more proactive and responsible (Hakanen et al., 2008). Professionally engaged teachers find their job meaningful and are involved in their job with great enthusiasm (Bakker & Bal, 2010). What is more, they are really passionate and highly motivated about their work, and as their job inspires them, they find their job rewarding (Sundaray, 2011).

1.1. Innovative work behavior
Innovative work behavior is defined as “all individual actions directed at the generation, introduction, and application of beneficial novelty at any organizational level” (Kleysen & Street, 2001, p. 285). Innovative work behavior has three dimensions, namely, idea generation, idea promotion, and idea realization (Janssen, 2000). Innovation plays a significant role in the success of schools (Serdyukov, 2017). It provides chances in terms of the growth of schools and allows them to gain competitive advantages as well (Hsiao et al., 2014). Creativity is a significant component of innovative work behavior (De Jong & Den Hartog, 2010; Tang, 2017). However, innovation is broader than creativity which includes not only the generation of new ideas but also the application of ideas (Gilson & Litchfield, 2017). Along the same line, teacher’s work innovative behavior plays a very crucial role in enhancing the performance of schools and society and it should be the main concern of teachers (Thurlings et al., 2015).

1.2. Learning organization
If schools are to survive in this ever-changing world, they should become learning organizations (Stoll & Kools, 2017). An organization that follows perceptual learning in order to improve and progress constantly is called a learning organization (Watkins & Marsick, 1993, 1996). Learning organization has seven dimensions, namely, continuous learning, inquiry, and dialogue, team learning, embedded system, empowerment, system connection, and strategic leadership
(Watkins & Marsick, 1996). Learning organization is so significant that it can create and sustain organizational change needed to maintain competitive capability (Senge, 1990).

Organizational learning for teachers entails looking for, analyzing, adjusting, and implementing novel ideas at schools (Schechter & Atarchi, 2014). This involves teachers continuously make instructional adaptations (Coppieters, 2005) rather than chief strategic shifts in their teaching practices (Crossan & Berdrow, 2003). A learning organization reinforces teacher leadership or distributed leadership (Grenda & Hackmann, 2014) through which teachers are positioned to solve school problems together by sharing responsibilities, goals, and decisions (Kowalski, 2010). As such, teacher leadership as a critical component of educational leadership has gained much attention in educational reforms (Sawalhi & Chaaban, 2019). A learning organization, further, helps optimize teacher learning by providing them with supportive leadership structures and enablers and ongoing learning opportunities in a collaborative inquiry-based culture (Carpenter, 2015) accompanied by collegial trust and respect (Peijing et al., 2016).

Schools can be affected by organizational learning in a number of ways. To begin with, it boosts teachers' performance (Rashid & Mansor, 2018). It affects teachers' well-being, work satisfaction, job efficacy, and their perspective towards their workplace as a high-quality educational center (Bowen et al., 2007). It also fosters their problem-solving abilities as they have to collaborate with each other to find solutions to problems they face as they try novel ideas (Schechter & Feldman, 2010).

What is more, many researchers have specified that organizational learning culture plays a critical role in the effectiveness of schools by enhancing their potential to innovate and grow (Fullan, 2018; Tichnor-Wagner et al., 2016). In a learning organization, structure and culture facilitate diffusion and adoption of new ideas, innovations (Gomes & Wojahn, 2017), and proactive adaptations to changing and challenging environments (Devilbiss & Gilbert, 2005; Huysman, 2000). Specifically, teachers in school learning organizations have shown that active engagement in constant mutual problem solving and interactions with their colleagues and experts in the field have been conducive to their adoption of innovative work behaviors (Rodríguez-Triana et al., 2019). In essence, teachers not only collaborate with their colleagues but also they have a mutual sharing of ideas with experts (Schenke et al., 2016) leading to the emergence of brand-new instructional practice (Rodríguez-Triana et al., 2019).

Motivation is the foundation of a learning organization as it engages and energizes individuals in their work (Parks & Langford, 2008; Senge, 2006; Strah et al., 2002). As a consequence, learning organization culture at schools makes a positive contribution to teacher engagement (Song et al., 2018). Learning culture is the main driver of staffs engagement levels (Rijal, 2010). In fact, organizational behavior has well explained the relationship between learning organization culture and work engagement by assuming that culture is a collection of norms and values which shape people's behavior and affect their thoughts about their work (Wagner & Hollenbeck, 1995).

H1: Learning organization positively influences EFL teachers' innovative work behavior.

H2: Learning organization positively influences EFL teachers' work engagement.

1.3. Work engagement

Work engagement has become a popular term among human resource management and organizational development professionals and communication practitioners (Macey & Schneider, 2008; Shuck & Wollard, 2010). Engagement is defined as “the investment of an individual's complete self into a role” (Rich et al., 2010, p. 617). There are three different approaches toward work engagement. The first approach was introduced by Kahn who defined work engagement as ‘the
harnessing of organization members’ selves to their work roles by which they employ and express themselves physically, cognitively, and emotionally during role performance’ (Kahn, 1990, p. 694). The second approach of work engagement was offered by Maslach and Leiter (1997) and Maslach et al. (2001) who defined engagement as the opposite to the burnout dimensions. The third approach which had a distinctive viewpoint to work engagement was recommended by W. Schaufeli et al. (2002) who defined engagement as a ‘positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption’ (p. 74).

It follows that teacher work engagement is a significant predictor of their job performance (Bakker & Bal, 2010), job satisfaction (Field & Buitendach, 2012; Saks, 2019; Simbula & Guglielmi, 2013), motivation (Haigaard et al., 2011), organizational commitment (Saks, 2019) and it directly impacts their instructional outcomes (Bakker & Bal, 2010) and feelings such as happiness and enthusiasm (Bakker & Demerouti, 2008). Positive emotions, then, triggers teacher emotional feelings and fosters creativity and innovation among them (Yongxing et al., 2017).

Additionally, positive communication with others as a component of work engagement fosters an individual’s innovative behavior (Messmann & Mulder, 2011; Ross & Bruce, 2007). In fact, feeling good about work leads to the creation of a new idea and novel solutions (Bawuro et al., 2018). In this regard, van Zyl et al. (2019) empirically showed that work engagement contributes to the development of innovative work behavior. Similarly, Vinarski-Peretz and Carmeli (2011) demonstrated that work engagement promotes staffs’ innovative work behavior.

The positive effects of work engagement on innovative work behaviors are consistent with the Broaden-and-Build theory of positive emotions that broadens thought-action and increases innovative work behavior. As staffs experience positive emotions including joy, interest, peace, gratitude, pride, friendship at work, they will broaden their thoughts, build, and develop their skills, boost productivity, become increasingly innovative, and start to flourish. Hence, the more positive emotions they experience in their workplace, the wider range of thought-action repertoires they have (Fredrickson, 2001).

Moreover, Social Exchange Theory (SET) (Cropanzano & Mitchell, 2005) provides the foundation of teachers’ engagement and their creative behavior. According to SET, staff who feel valued in their workplace and feel a sense of consideration demonstrate more work engagement. As a consequence, as they are engaged at work, they are motivated to do more than their duties which can lead to creativity and innovation and can move their workplace forward (Gichohi, 2014). In fact, teacher engagement makes them more optimist, motivated, energetic, and highly immersed in their profession, and this drives their creativity and innovation (Joo & Lim, 2009).

H3: EFL teachers’ work engagement influences their innovative behavior.

Consequently, by providing an atmosphere for teachers to collaborate, and shared decision-making, school learning organizations trigger a nurturing environment for novelty and innovation, Jimenez-Jimenez and Sanz-Valle (2011). In this regard, Bramwell et al. (2011) stated that school learning communities promoting collaboration and shared decision-making empower teachers to think creatively. Thepphawan (2005) found out that a learning organization continuously involving members in learning and constant exchange of knowledge to others nurtures innovation and the creation of novel ideas. In a similar vein, McCharen et al. (2011) empirically discovered that a supportive learning culture predicts teachers’ creativity. However, Dechuch and Mesmer-Magnus (2010) found out that learning organization culture indirectly affects performance through the mediating effect of engagement.
H4: EFL teachers’ work engagement mediates the relationship between learning organization and innovative work behavior.

2. Methods

2.1. Participants
The current investigation utilized a survey method to test the suggested model employing the structural equation modeling. The participants in this study were a group of 232 male and female TEFL teachers (51 males and 181 females) selected through convenience sampling from different English Language Institutes in Shiraz. Concerning the demographic distribution, all the participants were Persian native speakers who taught English as a foreign language at different English Language Institutes. The age range of individuals was 19–67 years, and the mean of their age was 32.51 years. From the viewpoint of education, 104 participants had BA, 114 participants had MA and 12 participants held PhD degrees. As regarded the teachers’ experience the least work experience was 1 year while the most teaching EFL teaching experience was 30 years. The average work experience was 8.54 years.

2.2. Instruments
In order to collect the data, the traditional paper-and-pencil process was utilized to maintain a high level of response rates and data reliability (Hays & McCallum, 2005). Three different instruments were employed in this study, namely, Learning Organization Questionnaire (DLOQ), the Urtecht Work Engagement Scale (UWES-9), and Innovative Work Behavior (Janssen, 2001). Overall, the survey included 39 questions which were completed within 20 min by EFL teachers. The first section was designed to collect demographic information, the second section measured data related to the cultural aspects of a learning organization as the exogenous variable, and the third and fourth sections were designed to capture data related to the level of teachers’ work engagement and their innovative work behavior as the two endogenous variables of the study. Before administering the questionnaires, a short introduction was given to the participants describing the aim of the study. The aforementioned data collection instruments are described in details in the following section:

2.2.1. The dimension of the learning organization questionnaire (DLOQ) (Marsick & Watkins, 2003)
The DLOQ is designed to measure learning culture in organizations. There are two versions of the DLOQ, the full or original version consisting of 43 items and the second version including 21 items. In this research, the abbreviated 21 item DLOQ inventory by Marsick and Watkins (2003) was utilized to measure the cultural aspects of the learning organization. The Persian translation of the inventory was used in this study. It measured the seven dimensions of the learning organization in the workplace including continuous learning (items 1, 7, 14), dialogue, and inquiry (items 2, 8, 15), team learning (items 3, 9, 17), embedded system (items 4,10,18), empowerment (items 5, 11, 19), system connection (items 6,12, 20) and strategic leadership (items 13, 16, 21). Each dimension is measured by three items on a six-point Likert scale (1 = almost never to 6 = almost always). Validity and reliability of DLOQ have been evaluated in several cultural contexts: the United States, Colombia, China, and Taiwan (Ellinger et al., 2002; Hernandez, 2000; Lien et al., 2006; Yang et al., 2004; Zhong et al., 2004). Additionally, several studies have shown strong reliability and validity levels for the DLOQ (Basim et al., 2007; Hernandez & Watkins, 2003; Yang et al., 2004).

The reliability of the DLOQ questionnaire in this study was measured using Cronbach’s alpha coefficient. The coefficients obtained for continuous learning, team learning, inquiry, and dialogue, embedded system, empowerment, system connection, and strategic leadership ranged from 0.60 to 0.78. The reliability of the whole questionnaire was 0.95. The results showed that the questionnaire and its dimensions are of desirable reliability. Besides, the validity of the DLOQ was previously established by Nadi and Sajjadian (2010) and Sharifirad (2011) in the Iranian context.
2.2.2. Innovative work behavior questionnaire (IWB) (*Janssen, 2001*)

The researchers of the current study used the Innovative Work Behavior questionnaire developed by Janssen (2001) comprising nine items based on Scott and Bruce (1994) scale. It measured the three components of innovative behavior in the workplace namely idea generation, idea promotion, and idea realization. Three items refer to idea generation (items 1, 4, 7), three to idea promotion (items 2, 5, 8), and three to idea realization (items 3, 6, 9). The questionnaire adopted a five Likert scale ranging from 1 “very little” to 5 ‘very much.’

In this study, the reliability estimate of the innovative work behavior as estimated through Cronbach’s alpha was 0.88. Moreover, the reliability estimate for idea generation, idea promotion, and idea realization were 0.80, 0.76, and 0.80, respectively. The results of the analysis proved the desirable reliability of the questionnaire. IWB questionnaire was validated by Ghani et al. (2009) and Janssen (2001). Besides, Khorakian et al. (2017), and Faryad et al. (2016) in addition to Khalilipour and Khanifar (2018) confirmed the validity of the questionnaire in Iran.

2.2.3. The urtecht work engagement scale (UWES-9) (*W.B. Schaufeli et al., 2006*)

Originally, the UWES included 24 items, but after psychometric evaluation, 7 items were eliminated, and 17 items were retained in which vigor entailed 6 items, dedication (5 items), and absorption (6 items) (Schaufeli & Bakker, 2003). In this research, the shortened version of the UWES-9 by W.B. Schaufeli et al. (2006) was used containing three items for vigor (items 1, 4, 5), three for dedication (items 2, 3, 7), and three for absorption (items 6, 8, 9). Several studies confirmed the short version of the UWES-9 in terms of consistency and structure (Seppälä et al., 2008). The questionnaire used a 6-point Likert scale (0 = never to 6 = always). Teachers selected the statements that were appropriate for them. The reliability of the questionnaire in this study was estimated through Cronbach Alpha was 0.93. The alpha coefficients for dimensions including vigor, dedication, and absorption, and the whole scale were 0.88, 0.87, 0.76, and 0.93, respectively. These values indicate desirable reliability of the questionnaire. The validity of the work engagement questionnaire was previously approved by Ghanbari et al. (2015), Hajiloo (2013), and Khalilipour and Khanifar (2018) in the Iranian context.

3. Results

The standard deviation and the reliability coefficients are demonstrated in Table 1.

In order to examine the hypotheses, the correlation was used as depicted in Table 2.

As it can be seen in Table 2, there was a positive and significant relationship between all the observable variables. Examining the relationships between dimensions of the learning organization with work engagement dimensions demonstrated that these variables have the strongest correlation with dedication and the weakest correlation with absorption. Besides, investigating the relationship between dimensions of the learning organization with innovative work behavior demonstrated that the learning organization and its dimensions have the strongest correlation with idea promotion and the weakest correlation with idea generation. Finally, examining the bivariate correlation between work engagement dimensions of innovative work behavior demonstrated that work engagement has the strongest relationship with idea generation and the weakest relationship with idea promotion.

In order to examine the linear relationships between variables, hierarchical multiple regression analysis was used in SPSS 23 (Hair et al., 2008). In this regression analysis, regression coefficient was used to test the relationships between variables and examine the changing patterns of R2 (the coefficient of determination) and beta was being used. During this analysis, multicollinearity and the assumption of the independence of error were examined. In order to examine the multicollinearity assumption and prevent the intervention of unintended interactive correlation, the Variance Inflation Factor (VIF) was calculated (Table 3).
Table 1. Descriptive statistics for observed variables and reliability coefficients

| Variables            | Min. | Max. | Mean  | SD    | Alpha Coefficients |
|----------------------|------|------|-------|-------|--------------------|
| Continuous Learning  | 3    | 18   | 11.23 | 2.96  | .60                |
| Inquiry and dialogue | 3    | 18   | 11.15 | 3.05  | .74                |
| Team Learning        | 3    | 18   | 11.19 | 3.20  | .72                |
| Embedded System      | 3    | 18   | 13.11 | 3.06  | .77                |
| Empowerment          | 4    | 18   | 12.32 | 3.19  | .72                |
| System Connection    | 3    | 18   | 10.90 | 3.22  | .70                |
| Strategic Leadership | 4    | 18   | 13.39 | 2.98  | .78                |
| Learning Organization| 26   | 123  | 83.29 | 18.57 | .95                |
| Vigor                | 6    | 21   | 16.16 | 3.38  | .88                |
| Dedication           | 8    | 21   | 17.17 | 3.19  | .87                |
| Absorption           | 7    | 21   | 16.98 | 2.94  | .76                |
| Work Engagement      | 27   | 63   | 50.31 | 8.78  | .93                |
| Idea Generation      | 4    | 15   | 11.42 | 2.24  | .80                |
| Idea Promotion       | 3    | 15   | 9.07  | 2.80  | .76                |
| Idea Realization     | 3    | 15   | 10.55 | 2.62  | .80                |
| Innovation           | 12   | 45   | 31.04 | 6.56  | .88                |

It should be noted that as there is just one independent variable, studying the values of this index is not necessary for the first step. In the second step, as depicted in Table 3 the amount of variance inflation factor (VIF) has equaled 1/23., an amount which is much less than the criteria proposed by Pituch and Stevens (2016) concerning not accepting values larger than 10. Therefore, it could be said that nonlinearity assumption could be accepted and multicollinearity was not violated. The results of the Durbin-Watson test and the values obtained from it (1/78) also approve the assumption of independence of error.

3.1. Hierarchical multiple regression analysis

Hierarchical Multiple Regression Analysis was utilized to examine the relationship among the three variables of the study (learning organization, work engagement, and innovative work behavior) and the mediating impact of work engagement. This analysis makes Coefficient estimates and Beta values (Hair et al., 2008). The results of regression analysis in two steps indicated that learning organization significantly affects the dependent variable individually and through controlling work engagement. In the first step, the learning organization explained 30% of the variance of job innovation (as the dependent variable) ($R^2 = 0.30$). In the second step, by adding the variable of work engagement, these two variables jointly accounted for 39% of the variance of job innovation for English language teachers ($R^2 = 0.39$). In fact, as can be seen from $\Delta R^2 (=0.09)$, the addition of the second independent variable (work engagement) significantly increased the magnitude of explanation by 9%. These results provided evidence on the initial mediating effect of work engagement on the relationship between learning organization and job innovation. In sum, the significance of F (74.94) at 0.0001 level indicated acceptability of the simple and multiple linear models and coefficients of determination.
### Table 2. Bivariate correlations between observed variables

|       | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1. Continuous Learning | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 2. Inquiry and dialogue | .68** | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3. Team Learning | .71** | .80** | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4. Embedded System | .70** | .58** | .64** | 1  |    |    |    |    |    |    |    |    |    |    |    |    |
| 5. Empowerment | .75** | .58** | .67** | .71** | 1  |    |    |    |    |    |    |    |    |    |    |    |
| 6. System Connection | .68** | .61** | .68** | .71** | .78** | 1  |    |    |    |    |    |    |    |    |    |    |
| 7. Strategic Leadership | .68** | .57** | .66** | .83** | .75** | .72** | 1  |    |    |    |    |    |    |    |    |    |
| 8. Learning Organization | .86** | .80** | .86** | .86** | .88** | .87** | .87** | 1  |    |    |    |    |    |    |    |    |
| 9. Vigor | .35** | .35** | .34** | .36** | .36** | .36** | .42** | .42** | 1  |    |    |    |    |    |    |    |

(Continued)
| 11. Dedication | 12. Absorption | 13. Work Engagement | 14. Idea Generation | 15. Idea Promotion | 16. Idea Realization | 17. Innovation |
|---------------|---------------|---------------------|--------------------|-------------------|---------------------|---------------|
| 10. Dedication | 35** 36**     | 34** 36**           | 38** 36**          | .35**             | 35** 34**          | 38** 35**     |
| 11. Absorption | .32**         | .29**               | .35**              | .42**             | .43** 34**         | .43** 32**    |
| 12. Work Engagement | .36** | .35**               | .38**              | .36**             | .40** 32**         | .40** 36**    |
| 13. Idea Generation | .36** | .35**               | .36**              | .36**             | .40** 32**         | .40** 36**    |
| 14. Idea Promotion | .47** | .46**               | .46**              | .46**             | .46** 36**         | .46** 46**    |
| 15. Idea Realization | .37** | .38**               | .38**              | .38**             | .38** 38**         | .38** 38**    |
| 16. Innovation | .46** 52**    | .46**               | .46**              | .46**             | .46** 46**         | .46** 46**    |

**Correlation is significant at the 0.01 level (2-tailed).**
Table 3. Results of hierarchical multiple regression on innovative behavior

| Predictor                        | B     | SEB | t     | p     | VIF | Adj. R² | F     | Δ R² |
|---------------------------------|-------|-----|-------|-------|-----|---------|-------|------|
| Step 1                          |       |     |       |       |     |         |       |      |
| Learning organization           | .195  | .019| 10.02 | .0001 | 1.00| .30     | 100.48| .09  |
| Step 1                          |       |     |       |       |     |         |       |      |
| Learning organization           | .143  | .020| 7.10  | .0001 | 1.23| .39     | 74.94 | .09  |
| Work engagement                 | .251  | .043| 5.89  | .0001 | 1.23|         |       |      |

Note: The dependent variable is work innovative behaviors

Then, after ensuring that the assumptions related to the modeling were met, the structural equation of the research model was tested. Given that in the structural equations method, measurement, and structural models are simultaneously tested in the form of an integrated statistical model, the results obtained from testing the present research model are presented in two different sections. Accordingly, in the next sections the results of measurement models and then structural equations contained in the research model will be presented. Next, the compatibility of the research model with data and indirect effects revealed in the model is discussed.

3.2. Assessment of measurement models
In the measurement part of the structural equation model testing, in addition to calculating possible measurement errors, one can evaluate the expected relationships between observable variables and the relevant latent variables. The measurement part of the present research model aimed at measuring the variables of the learning organization, work engagement, and innovative work behavior. The results obtained from assessing the fit of these indices for measuring the relevant latent variables are presented in Table 4.

Table 4 shows that all observable variables demonstrate good indices for measuring the relevant latent variable. The indices for the latent variable of a learning organization are loaded on this variable within the range of 0.75–0.87 so that the strongest and weakest indices are “empowerment” and “inquiry and dialogue,” respectively. The results obtained from the measurement model for the latent variable of work engagement indicated that three observable variables of dedication, vigor, and absorption, respectively, with factor loadings of 0.97, 0.90, and 0.78, were good indices for measuring the relevant latent variable. Moreover, factor loadings of the indices related to the latent variable of innovation varied between 0.63 and 9.91. R² values in Table 4 represent the explanation of observable variables by the relevant latent variable.

3.3. Assessment of the structural model
In this section, the results obtained from structural relationships between the considered variables including direct and indirect effects are studied. In order to interpret the results of the studied effects, the standardized path coefficient (SPC) or beta estimation was employed.

As shown in Figure 1, the results obtained from analyzing the direct effect of learning organization on work engagement were significant and positive (β = 0.46, p = 0.001). Learning organization had a significant positive direct effect on innovative behavior as well (β = 0.36, p = 0.001). Path coefficients of work engagement (β = 0.376, p = 0.001) to innovative behavior were also significant. Furthermore, R² values obtained from structural equations indicated that this model accounts for 40% of the variance of
Table 4. Results of examining measurement models

| Latent Variable          | indexes          | $R^2$ | B   | $\beta$ | P   |
|-------------------------|------------------|-------|------|---------|-----|
| Learning organization   | continuous       | .70   | .96  | .83     | .001|
|                         | dialogue         | .56   | .89  | .75     | .001|
|                         | Team Learning    | .67   | 1.02 | .82     | .001|
|                         | Embedded System  | .71   | 1.01 | .84     | .001|
|                         | Empowerment      | .75   | 1.08 | .87     | .001|
|                         | Connection       | .72   | 1.06 | .85     | .001|
|                         | Strategic        | .74   | 1    | .86     | .001|
| Work Engagement         | Absorption       | .61   | .76  | .78     | .001|
|                         | Dedication       | .93   | 1.01 | .97     | .001|
|                         | Vigor            | .81   | 1    | .90     | .001|
| Innovative behavior     | Idea Realization | .83   | 1.29 | .91     | .001|
|                         | Idea Promotion   | .40   | .95  | .63     | .001|
|                         | Idea Generation  | .68   | 1    | .83     | .001|

innovative work behavior. Comparing the results of structural equation modeling with those obtained from hierarchical regression analysis reveals that in the presence of a mediating variable (in the structural equation testing), the intensity of the standard coefficient related to the direct path between learning organization and innovative work behavior is reduced. Therefore, it can be concluded that work engagement mediates the relationship between learning organization and innovative behavior.

Next, the bootstrapping in AMOS was utilized to test the indirect effects or the mediating role of work engagement. The results are presented in Table 5.

As shown in Table 5, testing the indirect effects of the model indicated that learning organization in addition to having a direct effect on innovative behavior can have a significant positive indirect effect on innovative work behavior ($\beta = 0.17$, $p = 0.005$) through the mediation of work engagement. In fact, learning organization enhances EFL teachers’ innovative behavior by increasing their work engagement. However, due to the significant direct path between learning organization and job innovation, it can be said that this is a partial mediation. Finally, to examine and ensure compliance of the model with data, fit indices were computed for the model the results of which are presented in Table 6.

As shown in Table 6, fit indices including root-mean-square error approximation (RMSEA = 0.065), root mean residual (RMR = 0.54), relative fit index (RFI = 0.94), comparative fit index (CFI = 0.97), goodness of fit index (GFI = 0.93), and modified $\chi^2$ (1.98) represent that the model had a good fitness.

4. Discussion
This study examined the effect of a learning organization on EFL teachers’ innovative work behavior with engagement as a mediator in the Iranian context. The results of the analysis of 232 data from teachers working in different English Language Institute in Shiraz confirmed the hypotheses. The findings affirmed that learning organization has a significant and positive effect on work engagement. The results of the present research are in line with Song et al. (2018) who
demonstrated that school learning organization promotes teachers’ work engagement. In a similar vein, there is a dearth of studies that demonstrated that learning organization acts as the driver of staffs’ work engagement, thereby, boosting their performance (Bhasker & Mishra, 2014; Bichelmeyer & Horvitz, 2006; Kim & Park, 2017).

Besides, it was found out that learning organization has a significant positive direct effect on teachers’ innovative work behavior. This corroborates with the findings by Bae et al. (2012) who discovered that learning organization at schools predicts teachers’ creativity. Similar results were reported by Hsiao and Chang (2011) who empirically indicated that learning organization predicts organizational innovation among school teachers. To Bramwell et al. (2011), the collaborative learning communities dealing with teachers’ interaction, dialogue, and continual learning boost their creativity. In essence, “teachers’ creative processes grow out of the interaction between their personal characteristics and the communities in which they live and work … community reflects the extent to which teachers’ creativity is embedded in the professional and personal communities to which they belong” (p. 229).
Moreover, the correlation between dimensions of work engagement with innovative work behavior showed that absorption has the strongest relationship with idea generation and the weakest relationship with idea promotion. The result of this study is, further, supported by Bakker et al.’s. (2007) study whereby all three dimensions of work engagement correlated positively with innovative work behavior.

| Table 5. The direct, indirect, and total estimates of research variables |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Effects | Direct effect | Indirect effect | Total effect |
| | B | β | P | B | β | P | B | β | P |
| Learning organization to work engagement | .55 | .47 | .001 | — | — | — | .55 | .47 | .001 |
| Work engagement to work innovation | .26 | .36 | .001 | .125 | .17 | .005 | .39 | .53 | .01 |
| Work engagement to work innovation | .23 | .37 | .001 | — | — | — | .23 | .37 | .001 |

Additionally, examining the relationship between dimensions of learning organization with innovative work behavior illustrated that the learning organization and its dimensions have the strongest correlation with teachers’ idea promotion and the weakest correlation with idea generation. Many researchers and practitioners, also, agree on the interface between learning organization dimensions and innovative work behavior in both individual and organizational innovation (Ismail, 2005; Sta Maria, 2000).

Next, as the findings suggested, work engagement positively predicted teachers’ innovative work behavior. The significance of work engagement was echoed by Kong and Li (2018) who examined the mediating role of teacher work engagement in the relationship between proactive personality and innovative behavior. The findings demonstrated that work engagement acts as a mediator between the two mentioned variables. Also the results substantiate the findings of MacTavish and Kolb (2006) who discovered that engaged teachers take more initiatives and demonstrate more innovative work behaviors. The results also resonate with the research findings of Agrawal et al. (2012), Bakker (2011), Chughtai (2013), Faryad et al. (2016), Hodaee and Kolobandi (2014). In fact, the level of work engagement influences staffs’ learning motivation, which in turn yields positive impacts on their subsequent work behaviors including innovative work behavior (Chughtai & Buckley, 2011; Masvaure et al., 2014; Montani et al., 2014).

Table 6. Measurement fit indices of the full model

| Fit Indexes | df | χ² | df/χ² | GFI | CFI | RFI | RMR | RMSEA |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Values | 60 | 118.73 | 1.98 | .93 | .97 | .94 | .54 | .065 |
The innovation inducing impact of teacher work engagement is accounted for by the fact that it drives positive feelings and emotions which subsequently makes teachers open to novel ideas and encourages them to take more initiatives as confirmed by broaden-and-build theory by Fredrickson (2001). In essence, engaged teachers feel more mental inspiration, energy, and resilience which as confirmed by Saks (2019) catalyzes more innovative behavior. Such-engaged teachers experience elevated intrinsic motivation which creates the urge for them to take more initiatives and implement more innovative instructional practices at schools. Studies have also demonstrated that intrinsic motivation is a significant predictor of the adoption of novel instructional approaches (Fischer et al., 2019; Gorozidis & Papaioannou, 2014).

Finally, the results of the analysis of data provided evidence on the partial mediating effect of work engagement on the relationship between learning organization and innovative work behavior. In fact, learning organization enhances English language teachers innovative work behavior through increasing their work engagement. To be more specific, in addition to having a direct impact on teachers’ innovation, learning organization has a significant positive indirect effect on innovative work behavior through the mediation of work engagement. That is, learning organization enhances EFL teachers’ innovative work behavior by increasing their work engagement. Park et al. (2014), too, found an indirect effect of learning organization on employees’ innovative behavior through the mediation of work engagement suggesting that a high level of work engagement is more likely to lead to new and innovative ideas and more efficacious performance (van Zyl et al., 2019). However, contrary to the findings of the present study, in Park et al.’s (2014) study, learning organization did not directly influence individual innovation. This difference might be attributed to the different cultures between Iranian and Koreans.

5. Conclusion and implications
Taken together, the results of this study highlighted the importance of school learning organization in fostering teachers’ work engagement and their innovative behavior. Additionally, the findings demonstrated the crucial part teacher work engagement plays in triggering their innovation. This study carries paramount implications for policymakers and stakeholders. If stakeholders and policymakers at school are to survive in the ever-changing world, they should continuously involve in quality improvement. As proposed by Kovks (2017) school innovation is the springboard for school quality improvement. To achieve such a paramount goal, school leaders should provide teachers with a nurturing environment feeding continuous learning through teamwork, participatory, and shared decision-making, continuous inquiry, and strategic leadership. Linking this learning organization with a supportive culture can dramatically boost teachers’ organizational innovation (Song et al., 2014). Such a dynamic learning climate fosters teachers’ work engagement and is conducive to their embracement of change, adaptation, and continual novel instructional practices.

Additionally, as work engagement derives teachers’ innovative behavior, schools must create and sustain the energy and passion that teachers bring to their work. As such, it should be the concern of policymakers to develop effective interventions to immensely engaging teachers so that they feel more attached to the workplace and consequently to innovate.

Although the insights of the present study seem to be beneficial, there are some expected limitations. To begin with, it suffered from unequal group size with the ratio of female to male teachers equating 3.55. Therefore, the imbalance between the participants in terms of gender may have had impacted the findings of the study. Secondly, self-reported data was another limitation of the study as this might have affected the results. Additionally, this study as quantitative research used only a survey as a data collection, and no qualitative approaches were employed and the bias of participants may have played a role in selecting the answers to the research questions. Future researchers are suggested to make use of qualitative research design to offer more enriched description of the issues.
Funding
The authors received no direct funding for this research.

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Citation information
Cite this article as: Towards teacher innovative work behavior: A conceptual model, Soheila Hosseini & Zahra Rastegar Haghhighi Shirazi, Cogent Education (2021), 8: 1869364.

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