# The Relationship Between Active Work Behaviors, Transformational Leadership Style, and work Engagement: The Mediating Role of Innovation Culture

**Golnoosh Mesri[1], Maryam Sameri*[2], Javad Keyhan[3]**

## Abstract:

Objectives: The present study aimed to investigate the relationship between active work behaviors, transformational leadership style, and work engagement of vocational school teachers with the mediating role of innovation culture using Structural Equation Modeling(SEM). Methods & Materials: This research is applied and correlational. The study population consisted of teachers of vocational school in Urmia city during the academic year 2021-2022, totaling 309 individuals. A sample of 200 teachers was selected using stratified random sampling and Cochran's formula. The data were collected using the Zopiatis et al. work engagement questionnaire (2014), Tornau and Ferse's active work behaviors scale (2013), Bass and Avolio's transformational leadership style scale (1995) and Dobni's innovation culture scale (2008). The validity and reliability of the instruments were confirmed. Structural equation modeling (SEM) was used to analyze the data using SPSS and AMOS24 software. Results: In this study, a model of relevant variables affecting work engagement was examined. The findings showed that innovation culture and active job behaviors have a direct, positive, and significant effect on work engagement. The direct effect of active job behaviors, transformational leadership style on innovation culture is positive and significant. Moreover, the mediating roles of innovation culture on work engagement were confirmed. Active job behaviors, transformational leadership style, affect work engagement through the mediating variable of positive and meaningful innovation culture. Conclusions:The findings highlighted the importance and role of active job behaviors and transformational leadership style in increasing work engagement of vocational school's teachers through innovation culture.

1. Department of Education, Urmia Branch, Islamic Azad University, Urmia, Iran.
2. Department of Education, Urmia Branch, Islamic Azad University, Urmia, Iran.
  *Corresponding Author:   Email: m.sameri1359@yahoo.com
3. Department of Education, Urmia Branch, Islamic Azad University, Urmia, Iran.

## Introduction

Nowadays, work engagement has garnered significant attention from many organizations, which is associated with an individual's psychological attachment to their job and their high performance. Teachers, in the realm of education, need to possess enthusiasm and a positive feeling towards their work, essentially requiring a high level of work engagement. High work engagement indicates the experience of meaningfulness, enthusiasm, pride, and immersion in work, along with a positive feeling towards the job. Over time, in this state, an individual develops an attachment to their profession. If a teacher is passionate about their job, their creativity and talent in their field will flourish (Alami et al., 2022).

Conflict at work refers to the relationship between employees and their jobs. As a positive state, work engagement is defined as work satisfaction and being related to work (Schaufeli, 2017). Work engagement refers to a stable emotional and cognitive state that focuses on a subject, event, individual or behavior. Work engagement is characterized by a high level of energy and mental flexibility. It also refers to effort and perseverance during work and an easy resilience in the face of challenges. Being absorbed in work, experiencing a sense of importance in one's job, feeling enthusiasm about the job with complete focus, and experiencing joy at work to the extent that time passes quickly and one finds it difficult to detach oneself from work, are characteristics of work engagement (Schaufeli et al., 2002). Given the importance of human resources in the progress and success of organizations, it is crucial for them to create favorable conditions for their employees by encouraging and incentivizing them. Additionally, organizations should provide a platform that fosters positive work behaviors, such as creativity and innovation, among their employees (Kim et al., 2019).

### 1.2 Theoretical background
### 1.2.1 Active work behavior

To encourage positive work behaviors, managers have concentrated on fostering proactive behaviors among employees in the workplace (Huang, 2017). Employees with active work behaviors achieve greater success in their work because they easily adapt themselves to existing conditions and strive to achieve their best performance (Yu & Davis, 2016). Active work behaviors in employees will lead to increased work engagement in the workplace (Kong & Li, 2018). When employees exhibit active work behaviors, it enhances creativity and innovation at both the individual and organizational levels (Segarra-Ciprés & Escrig-Tena, 2019). Active work behaviors positively influence workplace innovation, as individuals who demonstrate higher levels of these behaviors also show greater creativity and innovation (Fuller & Marler, 2009; Nourjam et al., 2019).

### 1.2.2 Transformational Leadership style

According to research, if a transformational leadership style is prevalent in organizations, it will lead to an increase and promotion of active work behaviors in the organization, as well as increasing employees' self-efficacy and intrinsic motivation (Chenani et al., 2017).

While leadership is essential in any organization, it is important to note that

success in the education system depends on the implementation of effective leadership. Such leadership utilizes strategic activities and actions within the organization. Undeniably, leadership significantly impacts employees' behavior in the workplace (Christian et al., 2011). Particularly, the transformational leadership style, characterized by high support for employees, leads to increased motivation (Avolio & Yammarino, 2013).

Transformational leadership is a crucial and highly effective organizational leadership style in the workplace. This style involves a leader's capacity to understand and support employees within the work environment. Transformational leadership emphasizes the importance of employees' innovation, work values, beliefs, and collective interests, motivating them to attain new achievements (Mehrad et al., 2020).

Furthermore, transformational leaders encourage employees to develop new approaches for efficiently performing their tasks and provide them with freedom and independence in doing so (Kovjanic et al., 2012). By doing so, transformational leaders prepare their employees to meet higher expectations and tackle challenging tasks. Consequently, this leadership style inspires followers to transform their beliefs, values, skills, and motivations, thereby improving their performance beyond personal interests for the organization's benefit (Avolio, 1999). Transformational leaders inspire their employees to cultivate creativity and foster innovation. (Bass & Riggio, 2006). The transformational leadership style in organizations influences work engagement (Rana et al., 2016;

Manning, 2016). These organizational factors contribute to motivating employees, fostering positive behaviors, and enhancing work engagement (Mehrzi & Singh, 2016). Recent research indicates that leadership styles significantly influence employees' innovative and creative behaviors at work. Moreover, intrinsic motivation acts as a mediator in the relationship between leadership styles and innovation (Siyal et al., 2021). Studies indicate that active job behaviors, such as those exhibited in transformational leadership, have a significant impact (Xiong & King, 2019).

In social science research, besides the direct effects of variables on each other, mediating variables also play a crucial role.

### 1.2.3 Innovation Culture
Another variable that affects teachers' work engagement is innovation (Dehghan, 2018). The cultivation of an innovation culture is most effectively achieved through a framework that encompasses seven key factors: innovation propensity, organizational structure, organizational learning, creativity and empowerment, market orientation, value orientation, and implementation domain (Dobni, 2008). A culture that promotes creativity and innovation is crucial for fostering innovation within an organization. The conducive environment for creativity and innovation hinges on various aspects of the organization's infrastructure that enhance innovation. Strategic planning, proactive initiatives, thoughtful decision-making, accountability in the workplace, and creating supportive environments are all pivotal in cultivating an innovative culture. Additionally, fostering teamwork and similar collaborative

characteristics further contribute to establishing an environment conducive to innovation (Ahmadi & Moghaddam, 2020). Research has shown that employees who have a creative environment in the workplace also have high work engagement (Greenier et al., 2021).

### 1.3 Relationships among variables and research hypotheses

In summary, it can be stated that work engagement is one of the most crucial elements of positive well-being in the workplace (Bakker & Oerlemans, 2012). Studies have shown that active work behaviors in the workplace lead to initiative and goal-directed performance in employees. Additionally, employees seek new challenges and easily cope with work obstacles, and these dynamic work behaviors, reflecting their engagement, result in increased work engagement (Salanova & Schaufeli, 2008; Zahoor, 2018; Dai & Wang, 2023). It can be concluded that the transformational leadership style plays a critical role in cultivating strong relationships with employees (Hayati et al., 2014) and enhances employee work engagement (Lai et al., 2020).

### 1.3.1 Active work behavior and work engagement

Active work behaviors in employees will lead to increased work engagement in the workplace (Kong & Li, 2018). Research indicates that when a transformational leadership style is prevalent within organizations, it results in increased promotion of active work behaviors and enhances employee work engagement (Schmitt et al., 2016) in the organization.

### 1.3.2 Transformational leadership style and work engagement

Particularly, the transformational leadership style, characterized by high support for employees, leads to increased work engagement (Avolio & Bass, 1995). Based on conducted research, both transformational leadership styles in organizations have a significant impact on work engagement (Rana et al., 2016; Manning, 2016; Aboramadan & Dahleez, 2020). Moreover, a study conducted by Jangsiriwattana (2019) showed that the transformational leadership style has a stronger impact on the work engagement of teachers. In another study conducted by Edelbroek et al. (2019), it was observed that the transformational leadership style positively enhances work engagement.

### 1.3.3 Innovation culture as mediator

In the workplace, innovative behaviors encompass actions that introduce and promote new ideas with the goal of implementing them practically. One factor that contributes to innovation in the workplace is the dynamic and active behaviors of employees (Kong & Li, 2018). Studies show that active behaviors have a positive impact on innovative work behaviors, both directly and indirectly through increased work engagement. Additionally, transformational leadership positively moderates this relationship, strengthening the association between active behavior and work engagement, particularly at higher levels of transformational leadership behavior (Mubarak et al., 2021). According to conducted studies, the culture of innovation significantly influences work engagement (Gomes, 2015), and organizations and individuals need to cultivate innovative behaviors in employees to foster work attachment (Soetantyo & Ardiyanti, 2018). Transformational leadership

style influences the innovation culture (Sattayaraksa & Boon, 2016; David et al., 2023). In a study investigating the impact of transformational leadership style on innovation behaviors, Thingvad and Hansen (2019) concluded that transformational leadership style significantly affects innovative behaviors. Alrowwad et al. (2020) conducted a study investigating the influence of transformational leadership style on innovation. The findings revealed that transformational leadership style positively affects organizational performance. Innovation acts as a mediator in the relationship between transformational leadership style and organizational performance. Additionally, Edelbroek et al. (2019) discovered that transformational leadership style influences both employee engagement and innovation within the organization.

Research shows that the work engagement status among vocational high school teachers in Urmia is not desirable. For instance, inadequate focus on comprehensive education and neglect of non-technical skills such as innovation and creativity pose challenges to technical and vocational education and training in Iran. Additionally, constraints related to attending professional development courses due to limited budget allocations and heavy workloads represent further obstacles for teachers' competencies. These challenges contribute to low occupational engagement among teachers in vocational schools, diminish their innovation, and hinder the emergence of dynamic work behaviors (Mousavi et al., 2020).

As mentioned, high work engagement is identified as a positive factor that affects individual and organizational performance. Teachers who have high work engagement are creative and innovative, contributing to the improvement of the organization's goals. In any organization, especially in education and training, there are various factors that are effective in its progress, including transformational leadership style. This style has significant effects on creativity and innovation in the organization, active participation, especially work engagement of teachers.

A literature review to date indicates that relationships between variables have been investigated in various societies. Considering the significance of the performance of educational organizations in society, and acknowledging the importance of work engagement and its implications within organizations, it is noteworthy that this model has not been examined with all variables and based on proposed pathways in educational organizations. However, we consider that transformational leadership style, active work behaviors, and fostering an innovative culture within schools can enhance work engagement in vocational schools. Therefore, the aim of this study is to investigate the structural equations of active work behaviors, transformational leadership style with work engagement among teachers of vocational school, with the mediating role of innovation culture in Urmia County.

The research hypotheses derived from these theoretical foundations and results are as follows: Hypotheses: 1- Active work behaviors are related to work engagement. 2-Transformational leadership style is related to work engagement. 3- Innovation culture is

related to work engagement. 4-Innovation culture plays a mediating role in the relationship between transformational leadership style and work engagement. 5- Innovation culture plays a mediating role in the relationship between active work behaviors and work engagement.

## 2. Methodology and methods

The research methodology for this study is correlational and involves structural equation modeling. The statistical population for this research consists of all teachers of vocational high school in Urmia city in the academic year 2021-2022, totaling 309 individuals. A random stratified sampling method was used, and a sample size of 200 was selected using the Cochran formula.

The following questionnaire was used to collect research variables:

To examine work engagement, the standardized Zopiates questionnaire (2014) with 8 items was used, based on a 5-point Likert scale. In Borhani-Nia's research (2014), the overall reliability coefficient of the questionnaire was reported to be 0.871. To assess the reliability of the questionnaire, Cronbach's alpha was used, and its value was calculated to be 0.876.

The active work behavior questionnaire, developed by Tornau and Frese (2013), consists of 18 questions on a Likert scale ranging from 1 (completely disagree) to 5 (completely agree). The reliability of the questionnaire has been confirmed by Tornau and Frese (2013) with a coefficient of 0.765. The questionnaire is designed in three dimensions of organizational active behavior (questions 1 to 5), coworker active behavior (questions 6 to 12), and individual active behavior (questions 13

to 18). To measure the overall reliability of the questionnaire, Cronbach's alpha was used, and its value was calculated to be 0.917. In addition, the reliability of organizational active behavior, coworker active behavior, and individual active behavior was found to be 0.838, 0.826, and 0.859, respectively.

The Multifactor Leadership Questionnaire (MLQ) was developed by Bass and Avolio (1995) as a standardized questionnaire to measure leadership style. The questionnaire contains 20 questions measuring transformational leadership style. The response scale of this questionnaire is a five-point Likert scale with options ranging from "Never" to "Almost Always," and the value of options is scored as 0, 1, 2, 3, or 4, respectively. The validity and reliability of a measurement tool depend on how well it measures what we think it does (Saramad et al., 2011). The validity of the Multifactor Leadership Questionnaire has been confirmed by experts and specialists in this field. The reliability of this questionnaire has been reported as 0.88 by Kianfar (2013). In this study, the reliability of the transformational leadership style was calculated as 0.959. The transformational leadership style has four dimensions: Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration, with reliabilities of 0.913, 0.812, 0.824, and 0.793, respectively.

The Dabney (2008) model is used to measure innovation culture. This questionnaire consists of 18 items and 4 dimensions. Using Cronbach's alpha, the reliability of the innovation culture questionnaire was found to be 0.821, and for the intention for innovation,

infrastructure for innovation, market orientation for innovation, and implementation context for innovation dimensions, the values were 0.822, 0.852, 0.795, and 0.821 respectively (Shokri, 2017). The overall reliability of the questionnaire was calculated as 0.894, and Cronbach's alpha for intention for innovation (questions 1 to 4), infrastructure for innovation (questions 5 to 8), market orientation for innovation (questions 9 to 12), and implementation context for innovation (questions 13 to 18) were 0.704, 0.7, 0.81, and 0.7, respectively.

## 3. Results:

The study population consisted of 111 men with a prevalence rate of 55.5% and 89 women with a prevalence rate of 44.5%. The majority of the sample (91 individuals and 45.5%) were between the ages of 31 and 40. 95 individuals, equivalent to 47.5%, had a bachelor's degree and 98 individuals, equivalent to 49%, had between 11 and 20 years of work experience.

In casual modeling, which includes path analysis, confirmatory factor analysis, and structural equation modeling, the distribution of variables must be normal both in univariate and multivariate forms. To check the normality of univariate distributions, the absolute values of skewness and kurtosis of variables should not exceed 3 and 10, respectively (Kline, 2011).

### 3.1 Descriptive statistics

We present the descriptive statistics of the research variables, indicating that the data have the necessary dispersion for conducting path analysis. Moreover, the skewness and kurtosis of the research variables have been reported. According to this data, the absolute values of skewness and kurtosis of all variables are less than 3 and 10,

respectively. Therefore, the distribution of variables is normal. Active work behavior (Mean=73.15, Standard Deviation=9.78, Skewness=-0.46, Kurtosis=0.03), Transformational Leadership Style (Mean=69.53, Standard Deviation=19.94, Skewness=-0.78, Kurtosis=-0.21), Innovation culture (Mean=69.34, Standard Deviation=10.02, Skewness=-0.38, Kurtosis=-0.42), Work engagement (Mean=29.71, Standard Deviation=7.5, Skewness=-0.27, Kurtosis=-0.71).

### 3.2 Preliminary analyses

Since the Cronbach's alpha coefficients for the entire questionnaire were obtained to be 0.96, the reliability of this questionnaire is acceptable. Moreover, due to its appropriate theoretical foundation, this questionnaire has obtained content validity approval from subject matter experts. Confirmatory factor analysis was also used to validate the structure and items of each variable, as well as the corresponding items, and the absolute fit indices are presented as below:

Absolute Fit Indices for Active work behavior (CFI=0.93, GFI=0.91, $X^2$/df=1.89, RMSEA=0.06, Transformational Leadership Style (CFI=0.96, GFI=0.92, $X^2$/df=1.98, RMSEA=0.06), Innovation culture (CFI=0.93, GFI=0.9, $X^2$/df=1.79, RMSEA=0.06), Work engagement (CFI=0.98, GFI=0.96, $X^2$/df=1.66, RMSEA=0.06).

The goodness of fit indices for the tested model are as follows: The Goodness of Fit Index (GFI) is 0.94, which is higher than 0.90. The Adjusted Goodness of Fit Index (AGFI) is 0.91, which is higher than 0.80. The Comparative Fit Index (CFI) is 0.98, which is higher than 0.90. The chi-square to degree of freedom ratio

(X2/df) is 1.59, which is less than 3. The Parsimony Normed Fit Index (PNFI) is 0.71, which is higher than 0.60. Finally, the Root Mean Square Error of Approximation (RMSEA) is 0.05, which is lower than 0.08. Based on these findings, it can be concluded that the tested model has a good fit.

### 3.3 Measurement model

A conceptual model was proposed and examined using maximum likelihood path analysis to predict work engagement among teachers. In this study, active job behaviors, transformational leadership style, innovation culture, and work engagement were the variables included in the theoretical model. Innovation culture, and work engagement are endogenous variables in the model, meaning their variance is explained by the variables within the model, while active job behaviors, transformational leadership style are exogenous variables in the model, and their variance is explained by variables outside of the model that are unknown to the researcher. The tested model is reported in Figure 1. The AMOS 24 software was used to test this model.

**Fig 1: Tested model for work engagement among vocational high school teacher.**



GFI= .943, AGFI= .909, CFI= .985, RMSEA= .055
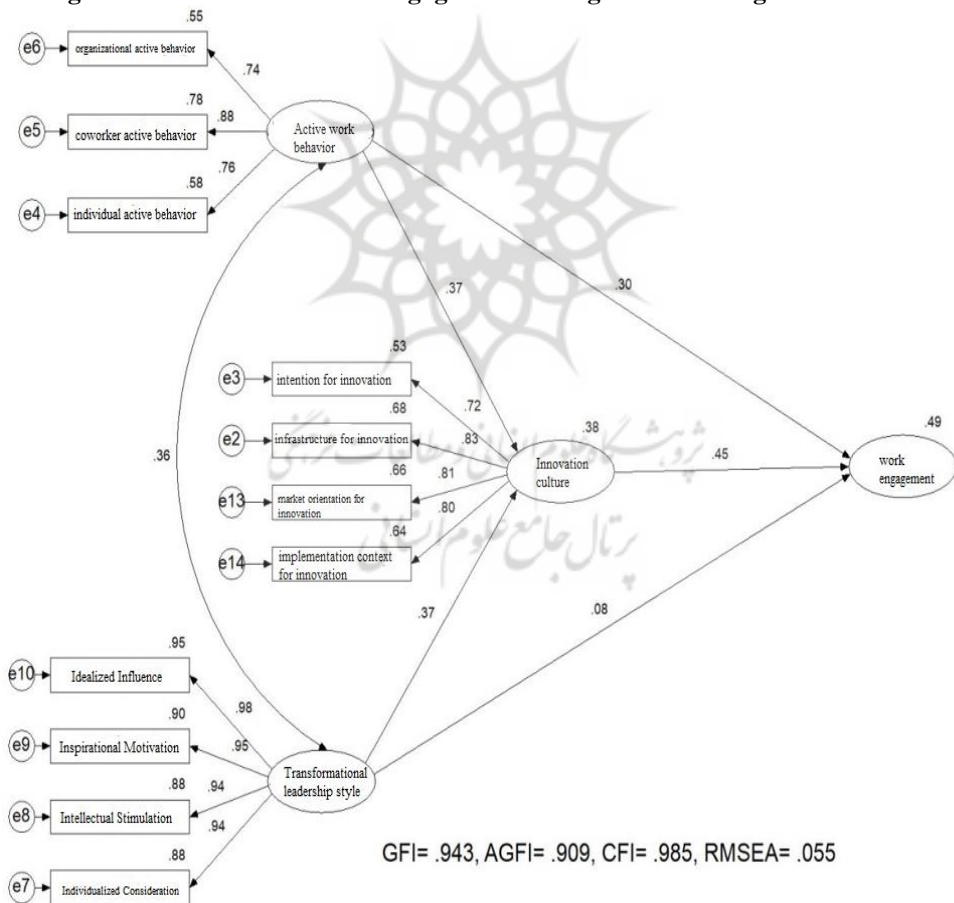
According to Figure 1, active job behaviors, transformational leadership style and innovation culture together explain 49% of the variance in work engagement. Additionally, active job behaviors, transformational leadership style predict 38% of the variance in innovation culture.

### 3.4 Correlation

In Table 1, the correlation matrix of the research variables is presented.

**Table 1: The correlation matrix of the research variables.**

| Number | Variable | 1 | 2 | 3 | 4 |
|--------|----------|---|---|---|---|
| 1 | Active work behavior | 1 | | | |
| 2 | Transformational Leadership Style | 0.32** | 1 | | |
| 3 | Innovation culture | 0.4** | 0.41** | 1 | |
| 4 | Work engagement | 0.52** | 0.49** | 0.56** | 1 |

**p<0.01

Based on Table 1, there is a significant positive relationship (0.52) between active job behaviors, (0.49) transformational leadership style and (0.56) innovation culture with positive work engagement at the 0.01 significance level.

### 3.5 Direct, Indirect and Total Effects of Research Model

Table 2 reports the direct effects, indirect effects, total effects and the variance explained by the variables are reported.

**Table 2: Direct Effects, indirect effects, total effects and the variance of the Tested Research Model**

| Pathway | Direct Effect | Indirect Effect | Total effect | Variance |
|---------|---------------|-----------------|--------------|----------|
| On Work engagement via | | | | 0.49 |
| Innovation culture | 0.45*** | - | 0.45*** | |
| Active Work Behavior | 0.30*** | 0.17* | 0.47** | |
| Transformational Leadership Style | 0.08 | 0.17** | 0.25** | |
| On Innovation culture via | | | | 0.38 |
| Active Work Behavior | 0.37*** | - | 0.37*** | |
| Transformational Leadership Style | 0.37*** | - | 0.37*** | |

*p<0.05, **p<0.01, ***p<0.001

According to Table 2, the direct effects of innovation culture (0.45) and active work behaviors (0.30) on positive and meaningful work engagement are

significant (p<0.001). However, transformational leadership style doesn't have a direct and significant effect on work engagement (0.08). The indirect effects of active job behaviors (0.17) and transformational leadership style (0.17) are positively and significantly related to work engagement (p<0.05). This effect enters through innovation culture on work engagement. Therefore, innovation culture plays an intermediary role in the relationship between active work behavior and transformational leadership style. Additionally, the direct effects of active job behaviors (0.37) and transformational leadership style (0.37) are positively and significantly related to innovation culture(p<0.001).

## 4. Discussion

In this study, a model of relevant variables affecting work engagement was examined. The findings showed that innovation culture and active job behaviors have a direct, positive, and significant effect on work engagement. However, transformational leadership style does not have a direct, significant effect on work engagement. The indirect effects of active job behaviors and transformational leadership style are positively and significantly related to work engagement via innovation culture. Based on the results of this study, it can be said that the tested research model has a good fit. The findings of this study are consistent with the results of several previous studies, including Ahmadifard's study (2017) which showed that transformational leadership encourages employee work engagement by emphasizing the importance of their job. These leaders focus on goals and motivate employees, resulting in work engagement. Yang Ping Ji and colleagues (2019) illustrate

that the transformational leadership style effectively fosters an innovative environment within organizations. The findings of the study conducted by Omar Farooq and colleagues (2014) regarding transformational leadership style align with fostering innovation. Establishing an innovation culture through suitable leadership styles is recommended. Furthermore, Frese & Fay (2001) confirm a relationship between transformational leadership and active job behaviors, such as innovation. Schmit colleagues (2016) found that work engagement mediates the relationship between transformational leadership and active work behaviors. Kong and Li (2018) concluded in their research that active work behaviors are related to work engagement. In line with the current research, Segera's study (2019) demonstrated that the presence of active job behaviors among employees leads to increased creativity and innovation in the organization. Multiple factors contribute to creativity and innovation in employees, including transformational leadership style, teamwork, and employee engagement (Tan et al., 2019; Zhang & Zhou, 2019). In line with the present research, the studies of Dehgan (2018), Mokhtari (2019), and Grineer et al. (2021) showed that teachers who are creative in their work have a high level of job engagement.

One critical factor influencing the work engagement of teachers in vocational high schools is cultivating positive emotions and motivational states that internally energize them. When teachers possess adequate internal motivation, they exhibit dynamic and active work behaviors. This motivation encourages them to

invest more time and effort into their work, fosters a strong sense of attachment to their profession, and enhances their enjoyment of their work. Teachers with high levels of work engagement actively influence their environment. Teachers with active work behaviors tend to change their work environment, including the physical environment. Additionally, teachers who receive organizational support and are satisfied with their job have active work behaviors, offer new ideas, and have creativity and innovation. Creativity and innovation lead to growth and development, and create new opportunities. Teachers need to be equipped with work engagement and organizational innovation culture. It is noteworthy that the innovation culture variable is significantly influenced by transformational leadership style. The transformational leadership style can be more useful for promoting innovation because transformational leaders focus more on a shared vision and help team members feel supported and enhance the innovation culture. Leaders can have a strong emotional impact on their employees, which creates a stronger emotional connection between individuals and their work environment and job.

## 5. Limitations

Like any other research, the present study has some limitations. The use of self-administered questionnaires as a data collection tool and the selection of the sample only among vocational high school teachers in one province limit the generalizability of the findings to other provinces and the entire country.

## 6. Conclusions

Based on the results of this study, considering that the innovation culture plays a mediating role in the relationship between work engagement and active job behaviors and transformational leadership style interact. To ensure that teachers have high work engagement and job attachment, managers should improve their leadership style by emphasizing social relationships, strengthening teachers' dynamic behaviors by promoting creativity and innovation in vocational high schools. Managers can use organizational new ideas and new idea production to solve organizational problems and increase teachers work engagement in technical and vocational schools and apprenticeships by implementing these ideas.

Some suggestions for presenting more comprehensive results in the field of research, expanding the scope of research to other provinces and regions of the country, which future research can investigate other statistical communities. The present study has examined quantitative data. In the future, researchers can study qualitative data.

### Declarations

Conflict of interest: The authors have no relevant financial or non- financial interests to disclose.

### Consent to Participate

Informed consent was obtained from all individual participants included in the study.

### Availability of Data and Material

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to restrictions containing information that could compromise research participants' privacy.

# References

Aboramadan, M., & Dahleez, K. A. (2020). Leadership styles and employees' work outcomes in nonprofit organizations: the role of work engagement. *Journal of Management Development*, *39*(7/8), 869-893.

Al Mehrzi, N., & Singh, S.K. (2016). Competing through employee engagement: a proposed framework, *International Journal of Productivity and Performance Management*. 65(6), 831-843. [DOI:10.1108/IJPPM-02-2016-0037].

Alami, F., Hosseini, S.M., & Hosseini, R., (2022). Investigating the Role of Schools Principals' Entrepreneurial

Alrowwad, A. A., Abualoush, S. H., & Masa'deh, R. E. (2020). Innovation and intellectual capital as intermediary variables among transformational leadership, transactional leadership, and organizational performance. *Journal of Management Development*, *39*(2), 196-222.

Attitude on Their Job Performance (Case study: Schools of Damavand County). *School Administration*, 9(4), 80-92

Avolio, B. J. (1999). *Full leadership development: Building the vital forces in organizations*. Sage.

Avolio, B. J., & Yammarino, F. J. (Eds.). (2013). *Transformational and charismatic leadership: The road ahead*. Emerald Group Publishing.

Bakker, A., & Oerlemans, W. (2012). "Subjective well-being in organizations," in *The Oxford Handbook of Positive Organizational Scholarship*, eds K. S. Cameron and G. M. Spreitzer (New York, NY: Oxford University Press), 178–189.

Bass, B. M., & Riggio, R. E. (2006). Transformational leadership.

Chenani, R., Naami, A., Arshadi, N., & Hashemi Sheikh Shabani, S. E. (2017). Designing and testing a model of some personality and organizational antecedents of proactive behaviors with mediating role of motivational states National Iranian Drilling Company. *Career and Organizational Counseling*, *9*(32), 9-31.

Dai, K., & Wang, Y. (2023). Investigating the interplay of Chinese EFL teachers' proactive personality, flow, and work engagement. *Journal of Multilingual and Multicultural Development*, 1-15.

Deci, E., Ryan, R. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*. 11, 227–268. [Doi: 10.1207/S15327965PLI1104_01].

Demerouti, E., & Cropanzano, R. (2010). From thought to action: Employee work engagement and job performance. In A. B. Bakker (Ed.) & M. P. Leiter, *Work engagement: A handbook of essential theory and research* (pp. 147–163). Psychology Press

Dobni, C. B. (2008). Measuring innovation culture in organizations: The development of a generalized innovation culture construct using exploratory factor analysis. *European journal of innovation management*, *11*(4), 539-559.

Edelbroek, R., Peters, P., & Blomme, R. J. (2019). Engaging in open innovation: The mediating role of work engagement in the relationship between transformational

and transactional leadership and the quality of the open innovation process as perceived by employees. *Journal of General Management*, *45*(1), 5-17.

Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Res Organ Behav*. 23:133-87. [DOI:10.1016/S0191-3085(01)23005-6].

Fuller Jr, B., & Marler, L. E. (2009). Change driven by nature: A meta-analytic review of the proactive personality literature. *Journal of vocational behavior*, *75*(3), 329-345.

Gad David, K., Yang, W., Pei, C., & Moosa, A. (2023). Effect of transformational leadership on open innovation through innovation culture: exploring the moderating role of absorptive capacity. *Technology Analysis & Strategic Management*, *35*(5), 613-628.

Gomes, C., Curral, L., & Caetano, A. (2015). The mediating effect of work engagement on the relationship between self-leadership and individual innovation. *International Journal of Innovation Management*, *19*(01), 1550009.

Greenier, V., Derakhshan, A., & Fathi, J. (2021). Emotion regulation and psychological well-being in teacher work engagement: A case of British and Iranian English language teachers. https://doi.org/10.1016/j.system.2020.10 2446

Hansen, J. A., & Pihl-Thingvad, S. (2019). Managing employee innovative behaviour through transformational and transactional leadership styles. *Public Management Review*, *21*(6), 918-944.

Harsha N. P., Vosicka, L., Granziera, H., & McIlveen, P. (2018). Towards an integrative perspective on the structure of teacher work engagement. *Journal of Vocational Behavior*. 108, 28-41. [DOI:10.1016/j.jvb.2018.05.006].

Hayati, D., Charkhabi, M., & Naami, A. (2014). The relationship between transformational leadership and work engagement in governmental hospitals nurses: a survey study. *Springerplus*, *3*(1), 1-7.

Huang, J. (2017). The relationship between employee psychological empowerment and proactive behavior: Self-efficacy as mediator. *Social Behavior and Personality*, 45(7), 1157–1166. [DOI:10.2224/sbp.6609].

Hui, L. Qun, W., Nazir, S., Mengyu, Z., Asadullah, M. A., & Khadim, S. (2020). Organizational identification perceptions and millennials' creativity: testing the mediating role of work engagement and the moderating role of work values. *European Journal of Innovation Management.* [DOI:10.1108/EJIM-04-2020-0165].

Jangsiriwattana, T. (2019). The relationship between transformational and transactional leadership: Employee perceptions of organizational performance and work engagement. *Journal of the International Academy for Case Studies*, *25*(3), 1-10.

Jin, J., & Rounds, J. (2012). Stability and change in work values: A meta-analysis of longitudinal studies. *Journal of Vocational Behavior*, *80*(2), 326-339.

Kim, J. G., & Lee, S. Y. (2011). Effects of transformational and transactional leadership on employees' creative behaviour: mediating effects of work motivation and job satisfaction. *Asian Journal of Technology Innovation*, *19*(2), 233-247.

Kim, M., Kim, A. C. H., Newman, J. I., Ferris, G. R., & Perrewé, P. L. (2019). The antecedents and consequences of positive organizational behavior: The role of psychological capital for promoting employee well-being in sport organizations. *Sport Management Review*, 22(1), 108–125. [DOI:10.1016/j.smr.2018.04.003].

Kim, W., Jeoung Han, S., & Park, J. (2019). Is the Role of Work Engagement Essential to Employee Performance or 'Nice to Have?. *Sustainability*, 11(4). [DOI:10.3390/su11041050].

Kong, Y., & Li, M. (2018). Proactive personality and innovative behavior: the mediating roles of job-related affect and work engagement. *Social Behavior and Personality*, 46(3), 431–446. [DOI:10.2224/sbp.6618].

Kovjanic, S., Schuh, S. C., Jonas, K., Quaquebeke, N. V., & Van Dick, R. (2012). How do transformational leaders foster positive employee outcomes? A self-determination-based analysis of employees' needs as mediating links. *Journal of Organizational Behavior*, *33*(8), 1031-1052.

Lai, F. Y., Tang, H. C., Lu, S. C., Lee, Y. C., & Lin, C. C. (2020). Transformational leadership and job performance: The mediating role of work engagement. *Sage Open*, *10*(1), 2158244019899085.

Li, H., Qun, W., Nazir, S., Mengyu, Z., Asadullah, M., & Khadim, S. (2020). Organizational identification perceptions and millennials creativity: testing the mediating role of work engagement and the moderating role of work values. *european journal of innovation management*. [DOI 10.1108/EJIM-04-2020-0165].

Manning, J. M. (2016). The Influence of Nurse Manager Leadership Style Factors on the Perception of Staff nurse Structural Empowerment, Work Engagement, and Intent to Stay (Doctoral dissertation). Available from PsycINFO Database Record (c) 2016 APA.

Mehrad, A., Fernández-Castro, J., Pau González, P., & Olmedo, G. (2020). A systematic review of leadership styles, work engagement and organizational support. *International Journal of Research in Business and Social Science*. 9(4):66-77. [DOI:10.20525/ijrbs.v9i4.735].

Michael S., Christian, Adela S., Garza, Jerel E., & Slaughter. (2011). Work Engagement: A Quantitative Review And Test Of Its Relations With Task And Contextual Performance. https://doi.org/10.1111/j.1744-6570.2010.01203.x

Nurjaman, K., Marta, M. S., Eliyana, A., Kurniasari, D., & Kurniasari, D. (2019). Proactive work behavior and innovative work behavior: Moderating effect of job characteristics. *Humanities & Social Sciences Reviews*, *7*(6), 373-379.

Role of Work Engagement. *International Review of Management and Marketing*, 7(3), 113-12.

Ryan, R., & Deci, E. (2009). Promoting self-determined school engagement: Motivation, learning, and well-being. In K. Wentzel, & A. Wigfield (Eds.). *Handbook of motivation at school New York: Routledge.* 171–195.

Saba S. R., Najma I. M., & Rana Y. H. (2016). Leadership Styles as Predictors of Job Involvement in

Teachers. *Pakistan Journal of Psychological Research*. 31(1), 161-182.

Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *The international journal of human resource management*, *19*(1), 116-131.

Sattayaraksa, T., & Boon-itt, S. (2016). CEO transformational leadership and the new product development process: The mediating roles of organizational learning and innovation culture. *Leadership & Organization Development Journal*, *37*(6), 730-749.

Schaufeli, W. B. (2017). Applying the job demands-resources model: A "how to" guide to measuring and tackling work engagement and burnout. *Organizational Dynamics*, 46, 120–132.

Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, *3*, 71-92.

Schmitt, A., Den Hartog, D. N., & Belschak, F. D. (2016). Transformational leadership and proactive work behaviour: A moderated mediation model including work engagement and job strain. *Journal of occupational and organizational psychology*, *89*(3), 588-610.

Segarra-Ciprés, M., Escrig-Tena, A., & García-Juan, B. (2019). Employees' Proactive Behavior And Innovation Performance: Examining The Moderating Role Of Informal And Formal CONTROLS, *European Journal of Innovation Management*. 22(5):866-888. [DOI:10.1108/EJIM-02-2019-0041].

Soetantyo, T. I., & Ardiyanti, N. (2018). Innovative behavior, learning organization, and the mediating role of work engagement in it sector. *Asia Pacific Institute of Advanced Research (APIAR)*, 1-12.

Xiong, L., & King, C. (2019). Aligning employees' attitudes and behavior with hospitality brands: The role of employee brand internalization. *Journal of Hospitality and Tourism Management*, 40, 67–76. [DOI:10.1016/j.jhtm.2019.06.006].

Yongxing, G., Hongfei, D., Baoguo, X., & Lei, M. (2017). Work engagement and job performance: The moderating role of perceived organizational support. *Servicio de Publicaciones de la Universidad Murcia (Spain),* 33, 708-713.[ DOI:10.6018/analesps.33.3.238571]

Zahoor, A. (2018). Teacher proactivity influencing student satisfaction and loyalty role of job crafting and work engagement. *Vikalpa*, *43*(3), 125-138.

Zhang, X., & Zhou, K. (2019), Close relationship with the supervisor may impede employee creativity by suppressing vertical task conflict. *R&D Management*, 49(5), 789-802. [Doi: 10.1111/radm.12375].

*Author 1 name: Golnoosh Mesri*
*Email: Golnooshmesri@gmail.com*
Ms. Golnoosh Mesri is PhD student at Isamic Azad university of Urmia Branch.

*Author 2 name: Maryam Sameri*
*Email: m.sameri1359@yahoo.com*
*(Corresponding Author)*
Ms. Maryam Sameri is Associate Professor at Islamic Azad University of Urmia Branch. She has published numerous papers in the field of educational management.

*Author 3 name: Javad Keyhan*
*Email: keyhan.edu@gmail.com*
Mr. Javad Keyhan is Associate Professor at Islamic Azad University of Urmia Branch