# Job demands, work motivation and work engagement among college teachers in Shan Dong Province: Inputs to work engagement model

Li, Xin ✉

*Graduate School, Lyceum of the Philippines University - Batangas, Philippines (lixin199304@126.com)*
*Liao Cheng University, China*

*Abstract*

The study aimed to examine the job demands, work motivation and work engagement among college teachers in Shandong province in China and developed a Work engagement model for teachers. Job demands are the factors that require a lot of physical and mental effort in the job and are associated with specific physical and psychological costs, such as work stress, role conflict, emotional exhaustion, and poor working environment conditions. Work motivation is an internal drive that individuals are willing to do what they think is important and valuable and strive to achieve perfection. Work engagement describes employees' ability to bring their full capacity to solving problems, connecting with people, and developing innovative services. The study made use of descriptive research design as it describes the variables understudy. The participants of the study were the 338 teaching staff of selected 5 well-known universities in Shandong Province: Shandong University, Ocean University of China, Shandong University of Finance and Economics, University of Jinan, Liaocheng University. The study used an adapted questionnaire as the data gathering instrument. Based from the results, job demands are the physical, psychological, and organizational aspects of a job that require physical or mental effort and can tax or exceed an employee's resources and agreed to be experienced by the respondents. The respondents are positively motivated as to intrinsic and extrinsic in their work. Teachers are highly engaged in their work and workplace as to vigor, dedication and absorption. There is a high significant relationship between job demands, work motivation and work engagement and thus the relationship between job demands, work motivation, and work engagement is complex and can be influenced by a number of factors. A proposed work engagement model was proposed to improve employee productivity and performance.

*Keywords:* job demands, work motivation, work engagement

## Job demands, work motivation and work engagement among college teachers in Shan Dong Province: Inputs to work engagement model

### 1. Introduction

In recent years, talents are an important factor supporting the rapid development of China's economy, and higher education schools are the main institutions for cultivating talents. University teachers shoulder the responsibility of serving the society, promoting social development, and cultivating highly educated talents. With Chinese government's emphasis on higher education, university teachers have also received more and more attention, and a large number of related research on university teachers has also been enriched. Teachers are the main body that determines the teaching quality and development level of universities. The teaching quality and development level of universities mainly depend on teachers' work engagement and work efficiency. Relevant studies have shown that when the degree of work engagement is high, individuals will devote energy to role behaviors and express themselves in roles. Conversely, when work engagement is low, individuals disengage from job roles, which can lead to job burnout and turnover intention (Rahmadani & Schaufeli, 2022). People can be happily engaged in their work, or they can be emotionally disconnected from their work. The work engagement of college teachers directly affects the quality of teaching. Therefore, the key to ensuring the quality of teaching and improving the level of running schools is whether college teachers can devote themselves to their work and carry out their work reasonably and effectively.

At present, China's overall economic situation is in a transition to high-quality development, the period of rapid economic development has passed. Although the economic development of Shandong Province is in a developed area in China, due to the uneven distribution of educational resources, the overall level of higher education is relatively low, resulting in a large gap in the development level of higher education in Shandong Province. Therefore, in order to improve the quality of university teaching, the Shandong provincial government has continuously raised the requirements for teachers in recent years, including requirements for academic qualifications, scientific research capabilities, number of published papers, service to the society, teaching quality, teaching competitions, KPI assessments, etc. On one hand, improving the job demands of college teachers can urge teachers to work harder and better to complete teaching, paper publication, scientific research projects, and social service, and put pressure on college teachers to complete tasks and KPI assessments. But on the other hand, excessive and continuous work demands will exhaust the work energy and work enthusiasm of college teachers. Under high-intensity work pressure, college teachers may have physical and mental health problems or job burnout, which is not conducive to improving the development level of teachers. In addition, if the work demands for college teachers are only increased without providing more work resources and organizational support to stimulate teachers' work motivation, it may hinder the realization of work goals and fail to complete the KPI assessment, and college teachers may feel frustrated and failure, which in turn will reduce the work enthusiasm and work engagement of college teachers. When the work engagement and organizational commitment of college teachers decline, the teaching quality and development level of universities will also be hindered.

Job demands refer to factors that require a lot of physical and mental effort in the job and are associated with specific physical and psychological costs, such as work stress, role conflict, emotional exhaustion, and poor working environment conditions. Work resources refer to the resources needed to achieve work goals, such as career development opportunities, support from leaders and colleagues, team atmosphere, participation in decision-making, etc. The work engagement generation mechanism that is currently widely recognized and adopted is the work Demands-Resource model. The basic premise of the model is to divide the characteristics of the work environment into two basic categories: job demands and job resources. The job demands-resource model can well explain the relationship between job resources and work engagement. But it doesn't account for

the variability in how individuals behave when faced with the same job. In fact, in the same working environment, the degree of individuals' work engagement is not the same. Moreover, a large number of empirical studies have proved that work engagement is also affected by individual differences (Bakker & Demerouti, 2017).

Work motivation is an internal drive that individuals are willing to do what they think is important and valuable and strive to achieve perfection. As an important social motivation, work motivation plays a great role in promoting individual's work and study. Therefore, work motivation has become a research hotspot in the field of educational psychology and management psychology. Many studies have shown that there may be a close relationship between work motivation and work engagement. For example, there is a significant positive and typical correlation between employees' work motivation and their work engagement (Bensley et al., 2016).

Some scholars define work engagement as "a positive, fulfilling, work-related emotional state characterized by vigor, dedication, and absorption". Work engagement of university teachers is a positive and fulfilling mental state related to work, including three dimensions of "vigor", "dedication" and "absorption", where "vigor" refers to the fact that university teachers are full of energy and have good resilience in the face of difficulties; "dedication" refers to the state of university teachers' high involvement in work, accompanied by pride and full passion (Demerouti, et al., 2017). There is a wide range of associations between job engagement and factors such as employee problem-solving, connecting with people, and developing innovative services, and there is a potential for employee engagement to organizational policies, as well as the interrelationship between practices and structures. Undoubtedly, a stable work environment will have the potential to maintain a relatively stable state of employee engagement and increase employee engagement (Collier, Barnes, Abney, and Pelletier, 2018). The relationship between job engagement and corporate and personal values is also closely linked, and when the two are closely linked, job engagement can also lead to positive progress. That's because, when a company builds company values with its employees and takes pride in them, it inspires employee loyalty. In the same way, we can argue that more loyal employees can also bring positive benefits to job performance. When the company's employees are able to remain flexible enough to face the complex challenges of their work with a more positive attitude. The company responds quickly to the dynamics of human resource management and appreciates the unique contributions of employees to the organization (Schaufeli, 2018). In addition, job engagement is also important for performance outside of the job role, as the complexity of the workplace will change as the business evolves, potentially leading to the disappointment of employers' expectations in some areas. In addition to the responsibilities required by the job content, employers often expect employees to take a relatively proactive approach beyond the core work content (Schaufeli, 2018). A proactive approach to work includes learning new knowledge, seizing new opportunities, and collaborating with colleagues to support the company's growth. Employees who are proactive in their work are likely to gain the ability to anticipate new directions in their career development, and based on this, will strongly support employees to become leaders in their respective fields (Xanthopoulou and Stamoylasis, 2019). Through a series of actions by employees, they will have the possibility to go beyond the content of the work and the authority itself, and transform their ability to constantly adapt to changes in work into an adaptive ability, bringing new dynamics of work and life.

The main body of higher education institutions college teachers, their work motivation directly affects all aspects of teachers' work, but as far as the current situation is concerned, the work motivation of Chinese university teachers is generally not high. University teachers face many problems, such as heavy workload, difficult education task, low income, high pressure on scientific research, fierce competition among teachers, and difficult relationships with leaders and colleagues. The phenomenon of job burnout and low work motivation have seriously affected teachers' work efficiency. Since teachers' work motivation is not very high, it is particularly important to stimulate and cultivate their work motivation well. First of all, stimulating and cultivating teachers' work motivation can enable teachers to devote themselves to work with more enthusiasm and realize their true value in their jobs. Secondly, stimulating and cultivating teachers' work motivation can make school management more effective and more conducive to enhance the cohesion of the school. Thirdly, motivating and cultivating teachers' work motivation can better promote the development of China's higher

education. Teachers are the main body that determines the quality of university teaching, and the development level of university mainly depend on the work engagement and work efficiency of teachers. Therefore, this study aims to analyze the relationship between job demands, work motivation and work engagement of college teachers in Shandong Province. As a teacher in one college in Shandong Province, this study may provide insights on how to increase resource support for college teachers to motivate them while working despite the high job demands and then improve the work engagement of college teachers. Findings of this research may provide inputs to the Human Resource Department to develop some programs to enhance the teacher's motivation and work engagement.

*Objectives of the Study -* The aim of this study is to determine the job demands, work motivation and work engagement among college teachers in Shandong Province, China, and was the basis in developing an Engagement Model. Finally, this study put forward action and plan to improve the work engagement of college teachers. Specifically it determined the job demands of college teachers in Shandong Province as to physical aspect, psychosocial aspect, organizational aspect; determined the work motivation of college teachers in terms of intrinsic motivators and extrinsic motivators; assessed the work engagement in terms of vigor, dedication and absorption; tested the significant relationships among job demands, work motivation and work engagement of selected college teachers; and developed work engagement model to improve teachers' work engagement for higher education institutions in Shandong Province.

## 2. Methods

*Research Design -* The descriptive method is a procedure where a specific data and information will be gathered from a populace or group of people being assessed. It also delivers the frequency of occurrence of such events or situation which can be described through numbers like the summation or average of incidents or the tendency of repetition (Semley, Homer, & Brunt 2017). In addition, Suparno (2017) asserts that descriptive research design is one form of formal study intended to provide a description of a phenomenon or an inherent characteristic of a population. The purpose of this design is to discover associations or relationships and differences among the three selected variables and to describe systematically and accurately the facts and characteristics of a given population (Rahi, 2017). Polit and Beck (2014) also shared that descriptive research aims to study and monitor an emerging sensation that cannot be recognized as an unbiased factor.

*Participants of the Study -* The participants of the study are teaching staff of selected 5 well-known comprehensive universities in Shandong Province: Shandong University, Ocean University of China, Shandong University of Finance and Economics, University of Jinan, Liaocheng University. The five universities are well-known in Shandong Province. They not only have greater advantages in hardware facilities and faculty, but also have their own school-running characteristics. They are also ranked among the national comprehensive universities, so teachers from the above schools are selected as the survey subjects, which has a wide range of representativeness. In order to identify the respondents from the five universities, the proponent sent a request letter to the institution to ask for the total number of teaching staff in the institution. The number of teaching staff of these five universities ranged from 70 to more than 200. The length of existence is from 25 years to 67 years. Out of 1899 total teaching staff in these five universities in Shan Dong Province, the sample size was 338, with an effect size of 0.50, a power probability of 0.95 or 95% and an alpha level of 0.05 or 5% using Google Raosoft.

*Data Gathering Instrument -* The study used three sets of questionnaires as the major mechanism in collecting the necessary data. Items in per instrument were presented as descriptive statements, and respondents were indicated the frequency with which each statement applied on a four-point likert scale with verbal interpretation of 3.50 – 4.00 scale means strongly agree, 2.50 – 3.49 rate means agree, 1.50 – 2.49 scale means disagree and, 1.00 – 1.49 rating means strongly disagree. The research instrument consists of four parts. Part I presents the demographic variables such as sex, age, service length, educational background, and job position and professional qualifications. Part II presents the questions on Job demands and was adopted from the Job

Demands-Resources Model proposed by Demerouti et al. (2001). Part III presents the indicators on work motivation and adopted from Begum and Hamzah (2017). Part IV are the indicators or work engagement and was adopted from Utrecht Work Engagement Scale (Gomoll, 2018).

*Data Gathering Procedure* - The researcher of this study used the published thesis as a source for the gathering and collection of data or information. In addition, books, articles and journals that are reliable for the study was used where relevant data and related information was collected. Additional and relevant information on the universities were collected through an informal interview. Before gathering of data, request letters to conduct the study were approved by the adviser and endorsed by the universities. The researcher prepared a letter of request to the President of universities to acquire approval to conduct the research work. The researcher also prepared a letter to the Human Resource Management (HRM) of the five universities for the total number of their staff (teaching and non-teaching) in the institution. It was reiterated that the purpose of the survey is conducted only in writing for academic purposes and that all information collected was kept confidential. Upon the approval of the universities, and approval of the adviser in the adopted questionnaires, the research started by distributing questionnaires to the teaching staff of five (5) selected universities in Shan Dong Province. The schedule for the date of distribution and retrieval of the questionnaire was discussed and set on a mutually agreed date with universities staff. The questionnaires were administered personally by the researcher or by using google forms to ensure the accuracy and confidentiality of the results.

*Ethical Considerations* - The researchers consider ethical factors when conducting the study such as the informed consent and disclosure of information. The researchers provided a letter for the respondents before they answer the questionnaire seeking permission if they could participate in the study. The participants have right to refuse to participate or answer the questions that make them feel uncomfortable to do so. To disclose the information, no name or personal identification was required to be written in the questionnaire. No video or audio recording was done to maintain the confidentiality of the respondents who answered the questionnaire.

*Data Analysis* - Frequency and percentage distribution were used to describe the respondent's age, sex, civil status, length of service, highest educational attainment, professional qualifications. Weighted mean and rank were used to determine the job demands of college teachers in Shandong Province as to physical aspect, psychosocial aspect, organizational aspect; determine the work motivation of college teachers in terms of intrinsic motivators and extrinsic motivators; assess the work engagement in terms of vigor, dedication and absorption. The result of Shapiro-Wilk Test showed that p-values of all variables were less than 0.05 which means that the data set was not normally distributed. Therefore, Spearman rho was used to test the significant relationship as part of the non-parametric tests to determine the significant differences. All analyzes were performed using SPSS version 28. In addition, post hoc test was also conducted. The following Likert Scale was used in assessing the variables: 3.50- 4.00 = Strongly Agree; 2.50-3.49 - Agree; 1.50 - 2.49 -Disagree; and 1.00 - 1.49 -Strongly Disagree. In addition, all data were treated using a statistical software known as PASW version 18 to further interpret the result of the study using an alpha level of 0.05 and 0.01.

## 3. Results and discussion

**Table 1**

*Jobs demands of college teachers*

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|---|---|---|---|
| 1. Physical Aspects | 2.55 | Agree | 2 |
| 2. Psychosocial Aspects | 2.53 | Agree | 3 |
| 3. Organizational Aspects | 2.56 | Agree | 1 |
| Composite Mean | 2.55 | Agree | |

*Legend*: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 1 shows the summary of job demands of college teachers. As seen from the table, the over-all

assessment of the respondents on job demands was positive. This was supported by the composite mean of 2.55. Organizational aspects ranked first with mean value of 2.56. This means that these demands include managing lesson planning, curriculum development, grading and assessment activities. Teachers shows that they are organize and delivers lesson effectively, create a conducive learning environment, maintain accurate records, meet deadlines and comply with administrative procedures and policies. Based on the result, they also navigate the demands of working within a school organizational structure, following schedule and collaborating with colleagues.

Kasaw and Golga (2018) examines teachers stress and its relationship to various organizational factors. His study discusses how high workloads, time pressures, lack of autonomy and limited resources contribute to the organizational demands experienced by teachers. Meanwhile, in the book of Campbell et.al (2018), they discuss the importance of organizational factors in supporting teacher effectiveness. They stress the need for supportive and collaborative school cultures, shared decision-making and distributed leadership to address organizational demands and enhance teacher performance. Physical aspects ranked second with mean value of 2.55 while psychosocial ranked the least. This job demand as to psychosocial involve the interactions and relationships teachers have with students, colleagues, parents and the broader school community. Teachers must establish positive and supportive relationships with students, manage classroom dynamics, provide emotional support and navigate potential conflicts or challenging behaviors. Additionally, teachers face emotional needs and backgrounds of their students. According to Collie and Perry (2019), that positive school climate and the promotion of social-emotional learning can reduce teacher stress and enhance job satisfaction and teaching efficacy. Also, the impact of psychosocial demands such as workloads, students' misbehavior and lack of support on teacher burnout and the importance of self-efficacy in buffering the negative effects.

**Table 2**

*Work motivation of college teachers*

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|---|---|---|---|
| 1. Intrinsic Motivators | 2.58 | Agree | 1 |
| 2. Extrinsic Motivators | 2.55 | Agree | 2 |
| Composite Mean | 2.57 | Agree | |

*Legend*: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 2 displays the summary table on work motivation of college teachers. The over-all composite means of 2.57 shows that they agreed in general. Intrinsic motivators ranked first with mean value of 2.58. This means that teachers are motivated by the inherent rewards and gratification they derive from their work, rather than relying solely on external factors such as financial incentives or recognition. Intrinsic motivators are important for teachers because they can help to sustain their motivation and enthusiasm over the long term. When teachers are intrinsically motivated, they are more likely to be engaged in their work, to be effective teachers, and to be satisfied with their jobs. Reeve's et al (2019) article explores the motivations behind teachers' behaviors and attitudes towards their students. It discusses the importance of autonomy-supportive teaching practices that nurture intrinsic motivation and empower students to take ownership of their learning. For motivation, motivation is the willingness to do something, while teacher motivation is the willingness to participate in teaching and continuously improve teaching skills. In this process, meeting the individual needs of teachers can also be constrained by their individual abilities. Motivated teachers are able to approach teaching-related issues from different perspectives of curriculum knowledge and provide good guidance to students in the process, providing them with motivation for their learning careers. Motivation is very important for teachers to motivate students, to support and guide students to maintain positive behaviors over a long period of time. Whereas, Cherry (2019) defines human motivation as the drive and process that leads or initiates, guides, and sustains goal-oriented people to behave their way. From this, we can think of human motivation as a process of psychological development, a process in which an individual initiates, directs, reinforces and adheres to a particular behavior. Motivation is closely related to beliefs, beliefs, values, interests, and behaviors. In addition, motivation is used as a reason to motivate people to take action, for example, when people are thirsty, they need

to drink a glass of water, and if they want to acquire new knowledge, they need to learn. Overall, motivation is more of a combination of variables that includes a variety of behavioral, emotional, and environmental factors that drive someone to take action.

The data in the table shows that the evaluation value of the impact of external factors on the work motivation of college teachers is the lowest. External factors can affect teachers' work motivation and enthusiasm in many ways. First of all, the level of teachers' performance rewards will directly affect teachers' work motivation. When the results of teachers' efforts at work are recognized by the school and given certain performance rewards, teachers will work harder. For example, schools will reward teachers for the papers or books they publish, and teachers who receive performance rewards will publish more articles. Secondly, the school's promotion incentives for teachers will also affect teachers' work motivation. If teachers work actively and hard, they will be recognized by the school and provide teachers with opportunities for promotion. Teachers will be more motivated to devote more energy to their work. Thirdly, a better organizational culture can be created through reasonable external motivation factors, so that the school can form a positive working atmosphere and let teachers know that the results of their efforts will receive positive feedback and rewards. Donohoo (2018) pointed out that through a review of teacher motivation, it was found that extrinsic motivation can stimulate teachers' work enthusiasm and work engagement to a large extent. However, different types of extrinsic motivation have different effects on teachers' work motivation. Researchers have found that extrinsic rewards that support autonomy can enhance teachers' work motivation, while extrinsic rewards that are punitive, controlling, and supervisory may have a negative impact on teachers' work motivation.

**Table 3**

*Work engagement of college teachers*

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|---|---|---|---|
| 1. Vigor | 2.52 | Agree | 3 |
| 2. Dedication | 2.58 | Agree | 1 |
| 3. Absorption | 2.54 | Agree | 2 |
| Composite Mean | 2.55 | Agree | |

*Legend*: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 3 illustrates the summary table on work engagement of teachers. The over-all composite means of 2.55 indicates that they agreed in general. Although work engagement has been studied for decades in the fields of positive psychology and organizational management, there is still no clear consensus on its definition, Meyer (2014). Some researchers have suggested that engagement should be conceptualized and operationalized as a construct completely opposite to burnout (Knight, Patterson & Dawson, 2017). However, Schaufeli (2018) They argue that engagement should still be considered as a stand-alone concept for assessing an employee's personal vitality, dedication, and absorption, although engagement is often negatively correlated with burnout and other poor employees and job performance and other psychological factors. Specifically, vitality means having a high level of emotional energy, mental resilience, and a positive willingness to work hard; Dedication refers to a person's passion, meaning, and pride in their work; Assimilation includes a passion for work. Based on the result, dedication ranked first with a mean score of 2.58. When someone is highly engaged in their work, they demonstrate a strong sense of dedication and commitment. They go beyond the basic requirements of their job and invest themselves wholeheartedly in their work-related activities. They experience a deep connection to their work and feel a strong motivation to contribute their best efforts. Work engagement is associated with various positive outcomes for individuals and organizations. It is precisely because employees are recognized by their organizations during their hard work, feel that their own value has been reflected, and gain a strong sense of recognition, personal accomplishment, and self-satisfaction at work, so their work dedication is often relatively high, it is easier to devote yourself to work. Schaufeli (2018)'s research shows that work engagement can be used as a moderating variable between employee outcomes and work resources, and work dedication will affect the degree to which work resources support work outcomes. Researchers have found that employee outcomes are positively related to work engagement. The more work outcomes are recognized, the higher the employee's work engagement will be. Work resources are also positively related to work dedication. If the organizations can

provide policy support, performance incentives, and external resource support, employees' work dedication will be relatively high.

The second is the degree of absorption in work engagement (2.54). Many external and internal factors of the organization will affect employees' absorption during work, and employees with higher absorption will create more work results and gain more rewarding performance and greater job satisfaction and engagement. The lowest performance value in the table is vigor. Employee vigor will not only affect the individual employee's work enthusiasm and work attitude, but also affect the organization's working atmosphere and organizational culture, which will in turn affect work engagement, job satisfaction and work results. Organizations can improve employees' work vitality by formulating reasonable policies, encouraging employees to actively work, enriching employees' social and communication opportunities, and paying attention to employees' physical and mental health, which will in turn positively affect employees' work engagement and the organization's work atmosphere. Sulistyani et al. (2022) found that teachers' personal characteristics can affect teachers' work engagement, such as teachers' age, gender, identity, self-esteem, and sense of efficacy. Teachers with strong self-esteem and high sense of efficacy are more likely to be engaged in their work. The study also found that the work environment also affects teachers' work engagement, such as physical facilities in the workplace, organizational commitment, and concern from colleagues.

**Table 4**

*Relationship among job demands, work motivation, and work engagement*

| Paired Variables | r-value | p-value | Interpretation |
|---|---|---|---|
| Job Demands & Work Motivation | 0.946** | 0.000 | Highly Significant |
| Job Demands & Work Engagement | 0.934** | 0.000 | Highly Significant |
| Work Motivation & Work Engagement | 0.941** | 0.000 | Highly Significant |

*Legend*: Correlation is significant at the 0.01 level

Table 4 describes the relationship between job demands, work motivation, and work engagement. As can be seen from the table, the calculated rho value is 0.946, indicating a very strong direct relationship between job demands and work motivation. Since the p-value obtained is less than 0.01, it also indicates a statistically significant relationship between the two variables. Therefore, in order to improve work motivation and work performance, organizations can reasonably reduce the work requirements for employees in terms of supervision and punishment, and at the same time improve work motivation by increasing the support of work resources. For example, organizations can streamline work processes, set up automated tasks, and provide employees with greater flexibility in their work mechanisms to promote employees' work motivation. In terms of job resources, employees can be provided with more diversified growth and development opportunities, such as formulating regular training and development plans for employees and providing multiple sequences of promotion opportunities. Organizations can also help improve motivation at work by creating a positive and supportive work environment. Research by Yeo and Lee (2020) shows that teachers' work motivation decreases when they face problems such as heavy workload and insufficient resources. However, the negative impact of job demands on work engagement can be buffered by enhanced support from job resources, such as the provision of social support and professional development opportunities. Meanwhile, Skaalvik and skaalvik (2018) studied the sources and consequences of teachers' work stress. Research has found that job demands such as heavy teaching workloads and student behavioral issues can cause teachers a certain degree of work stress.

Likewise, the rho value calculated in Table 4 is 0.934, indicating a very strong direct relationship between job demands and work engagement. And the results show that there is a statistically significant relationship between the two variables as the p value obtained is less than 0.01. The relationship between teachers' job demands and work engagement is complex. On the one hand, the organization's high work demands on employees may lead to employee stress and burnout, thereby reducing employee work engagement. On the other hand, sometimes higher job requirements can also bring employees a sense of personal accomplishment and self-satisfaction, which can help stimulate employees' work enthusiasm and increase work engagement. Therefore, if we can find a balance between work demands and work resources, increase work requirements

while strengthening support for teachers' work resources, so that teachers can feel the challenge while also receiving resource support provided by the school, it will increase employee investment. Spend. Arce (2019) found in research that heavy workload and lack of support may cause teachers to feel burnt out at work and employees' work engagement will decrease.

Lastly, there was a very strong direct relationship between work motivation and work engagement as indicated the computed rho-value of 0.941. Also, there was statistically significant relationship between work motivation and work engagement because the obtained p-value was less than 0.01. According to Self-Determination Theory (SDT) individuals are motivated when their psychological needs for autonomy, competence, and relatedness are fulfilled. Research based on SDT suggests that teachers who experience high levels of intrinsic motivation, which arises from a sense of autonomy, competence, and relatedness, are more likely to be engaged in their work. They exhibit higher levels of dedication, absorption, and vigor. Bakker and Demerouti (2017) stated that work engagement is influenced by both job demands and job resources. Motivation can be seen as an internal resource that contributes to work engagement. Teachers who are motivated by intrinsic factors, such as a sense of purpose, enjoyment, and personal growth, are more likely to be engaged in their work and display higher levels of dedication and absorption.
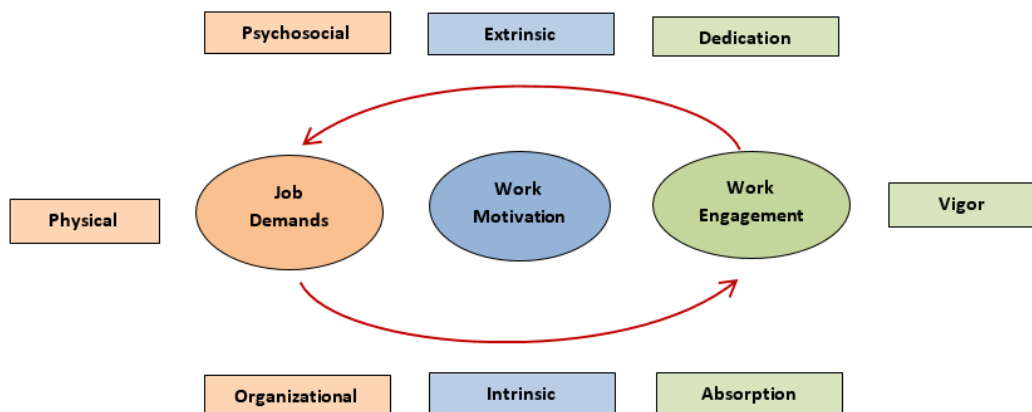


*Figure 1.* Work Engagement Model

The relationship between job demands, work motivation, and work engagement is complex. Job requirements refer to the requirements that work places on employees in terms of physical, psychological, physical or mental strength, social achievements, work results, etc., and may exceed the employee's ability and available work resources. Work motivation is the willingness and desire of employees to work hard to achieve certain work goals. Work engagement is a positive and motivated state, which is divided into three characteristics in this article: vitality, dedication and concentration. It is widely believed that high job demands can lead to employee stress, fatigue, and burnout, which can reduce employee motivation to engage in work and, therefore, reduce employee work engagement.

However, the relationship between job demands and work motivation and engagement is complex. For example, Shkoler and Kimura (2020) showed that when employees have high subjective control over their work, high job demands can stimulate employees' sense of challenge and accomplishment, which in turn can improve work motivation and engagement. This is because employees with a high degree of control are more likely to feel that their work is important and to expect that the results of their work will be valuable to society. Furthermore, the relationship between job demands and work motivation and engagement may be moderated by personal factors such as personality, self-efficacy, and coping styles. For example, employees who are high in neuroticism or have a negative view of their work are more likely to experience negative emotions in response to high job demands. This can lead to decreased motivation and engagement at work. Overall, the relationships between job demands, work motivation, and work engagement are complex and may be influenced by multiple factors. Therefore, organizations must find ways to reduce job demands or provide employees with adequate job

resources to help employees cope with high job demands.

## 4.   Conclusions and Recommendations

Job demands affect the physical, psychosocial and organizational aspect of the college teachers as they agreed that they experience it. Despite of these, teachers are positively motivated as to intrinsic and extrinsic in their work. Teachers are highly engaged in their work and workplace as to vigor, dedication and absorption. Results showed that there is a high significant relationship between job demands, work motivation and work engagement A proposed work engagement model was proposed to improve employee productivity and performance.

The management may reduce workload of teachers which were often overloaded with work can lead to stress, fatigue, and burnout. The Human Resource Management Office may provide teachers with access to professional development opportunities, providing them with resources to help them with their work, and creating a supportive and positive work environment. Every department may conduct activities to acknowledge and celebrate teachers' achievements, milestones, and contributions. Provide recognition and rewards that align with their professional growth and accomplishments. Recognizing and rewarding teachers'efforts and successes reinforces their motivation and commitment. The management may provide regular and constructive feedback to teachers, highlighting their strengths and areas for growth. Positive and specific feedback can enhance their self-efficacy and motivation, while constructive feedback helps them improve their teaching practices. Teachers may continue to build a supportive network of colleagues and mentors with whom you can share ideas, seek advice, and collaborate and collaborating with others can foster a sense of connection, provide new perspectives, and inspire creative approaches to teaching. The proposed work engagement model may serve as a guide to help organizations understand what motivates employees and how to create a work environment that fosters engagement. Future researchers may conduct similar study but focusing on work-life balance and job security.

## 5.   References

Arce, J. J. C. (2019, February). Forests, inclusive and sustainable economic growth and employment. In *Background Study Prepared for the Fourteenth Session of the United Nations Forum on Forests*; United Nations: New York, NY, USA.

Bakker,A. B., & Demerouti, E. (2017), Job demands-resources theory: taking stock and looking forward, *Journal of Occupational Health Psychology, 22*(3), 273-285.

Bensley, D. A., Rainey, C., Murtagh, M. P., Flinn, J. A., Maschiocchi, C., Bernhardt, P. C., & Kuehne, S. (2016). Closing the assessment loop on critical thinking: The challenges ofmultidimensional testing and lowtest-taking motivation. *Thinking Skills and Creativity, 21*, 158-168.

Begum, F. U., & Hamzah, M. H. (2017). Effect of intrinsic and extrinsic motivation on teachers in secondary schools of Telangana. *Pune Research Discovery, 2*(2), 1-7.

Campbell, C., Clinton, J., Fullan, M., Hargreaves,A., James, C., & Longboat, K. D. (2018). *Ontario: A learning province*. Queens Printer, Ontario Ministry of Education.

Cherry, K. (2019). How Maslow's famous hierarchy of needs explains human motivation. *Verywell Mind, 3*.

Collie, R. J., & Perry,N. E. (2019). Cultivating teacher thriving through social-emotional competence and its development. *The Australian Educational Researcher, 46*(4), 699-714.

Collier, J. E., Barnes, D. C., Abney, A. K., & Pelletier, M. J. (2018). Idiosyncratic service experiences: When customers desire the extraordinary in a service encounter. *Journal of Business Research, 84*, 150-161.

Demerouti, E., Bakker,A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Appliedpsychology, 86*(3), 499.

Demerouti, E., Van den Heuvel, M., Xanthopoulou, D., Dubbelt, L., & Gordon, H. J. (2017). Job resources ascontributors to wellbeing. In The *Routledge companion to wellbeing at work* (pp. 269-283). Routledge.

Donohoo, J. (2018). Collective teacher efficacy research: Productive patterns ofbehaviour and other positive consequences. *Journal of educational change, 19*(3), 323-345.

Gomoll,A. (2018). *Job challenges and hindrances: Testing a differentiated model of job demands and the relation to resources, burnout, and engagement* (Doctoral dissertation, Alliant International University).

Kasaw, E.S & Golga, D. N. (2018). *Employees' Organizational Commitment in Higher Educational Setting*. Job Commitment in Higher Education institutions.https://doi.org/10.20944/preprints201904.0029

Knight, C., Patterson, M., & Dawson, J. (2017). Building work engagement: A systematic review and meta-analysis investigating the effectiveness of work engagement interventions. *Journal of organizational behavior, 38*(6), 792-812.

Polit, D. F., & Beck, C. T. (2014). *Essentials of nursing research: Appraising evidence for nursing practice* (8th ed.). Philadelphia: Wolters Kluwer.

Rahi, S. (2017). Research Design and Methods: A Systematic Review of Research Paradigms, Sampling Issues and Instruments Development. *International Journal of Economics and Management Sciences, 6*(2), 1-5.

Rahmadani, V. G., & Schaufeli, W. B. (2022). Engaging leadership and work engagement as moderated by "diuwongke": an Indonesian study. *The International Journal of Human Resource Management, 33*(7), 1267-1295.

Reeve, J., Cheon, S. H., & Jang, H. R. (2019). A teacher-focused intervention to enhance students' classroom engagement. In *Handbook of student engagement interventions* (pp. 87-102). Academic Press.

Schaufeli, W. B. (2018). Work engagement in Europe: Relations with national economy, governance and culture. *Organizational Dynamics, 47*(2), 99-106.

Shkoler, O., & Kimura, T. (2020). How does work motivation impact employees' investment at work and their job engagement? A moderated-moderation perspective through an international lens. *Frontiers in psychology, 11*, 38.

Semley, N., Horner, S., & Brunt, P. (2017). Research methods in tourism, hospitality and events management. *Research Methods in Tourism, Hospitality and Events Management*, 1-360.

Skaalvik, E. M., & Skaalvik, S. (2018). Job demands and job resources as predictors of teacher motivation and well-being. *Social Psychology of Education, 21*(5), 1251-1275.

Sulistiyani, E., Hidayat,Y. A., Setiawan,A., & Suwardi, S. (2022). Perceived organizational support, employee work engagement and work life balance: Social exchange theory perspective. *Jurnal Riset Ekonomi dan Bisnis, 15*(2), 133-143.

Suparno, (2017) Managing Organizational Culture to Improve the Performance of Private Institutions: Analytical Study of the Role of Public Policy Regarding Higher Education. *International Journal of Mechanical Engineering and Technology, 8*(12), 1167–1171.

Xanthopoulou, D., & Stamovlasis, D. (2019). *Job crafting and work engagement: Probing nonlinear effects with catastrophe theory models.* In 19th Eawop Congress (No. IKEECONFAN-2020-124). Aristotle University of Thessaloniki.

Yeo,Y., & Lee, J. D. (2020). Revitalizing the race between technology and education: Investigating the growth strategy for the knowledge-based economy based on a CGE analysis. *Technology in Society, 62*,101295.