

The Mediating Role of Positive Emotions in Growth Mindsets and Work Engagement Relationship among Algerian academics

Abderrahmane Elkheloufi

abderrahmane1@oyagsb.uum.edu.my

ORCID ID: <https://orcid.org/0000-0002-5009-504X>

Affiliation/address: School of Business Management, College of Business, Universiti Utara Malaysia, 06010 UUM Sintok, Kedah.

Tan Fee Yean

feeyean@uum.edu.my

ORCID ID: <https://orcid.org/0000-0002-9976-0928>

Affiliation/address: School of Business Management, College of Business, Universiti Utara Malaysia, 06010 UUM Sintok, Kedah.

Abstract

Research background: An organization needs workers who have been full of vigor and personal confidence; they are passionate and enthusiastic over their job and are entirely concerned about their work pursuits. In other words, an organization needs an engaged work force. Therefore, it is increasingly important for organizations to plan a way that enables workers in order to release their full capacity and being more engaged at work. Organizations nowadays require workers who are emotionally linked to their work and ready to perform everything they be able to foster their organizations' accomplishment.

Purpose of the article: The current study, which draws on the Broaden-and-build theory and the job demands-resources model of work engagement, seeks to examine the relationship between growth mindset as a personal resource and work engagement, with the role of positive emotions as mediator.

Methods: The current study employed partial least squares structural equation modeling to analyze the mediating role of positive emotions in mindsets and work engagement relationship. A cross-sectional survey was conducted with 356 academics from Algerian public universities who were selected using stratified random sampling.

Findings & value added: The finding reveals that positive emotions mediate the relationship between growth mindset and work engagement. The current research provides substantial theoretical and managerial implications for academic staff to be engaged at work. The principal finding of this research is that academic staff with growth mindsets who experienced positive emotions are supposed to be highly engaged at workplace. As a result of these investigations, leaders may increase employee work engagement through paying attention to employees who have a growth mindset and positive emotions.

Keywords: Growth Mindset, Positive Emotions, Work Engagement

Introduction

To compete in the unsteady and stormy work conditions, organizations be under the necessity of developing and retaining workers who are highly stimulated, and they are prepared to go the extra mile (Bakker & Schaufeli, 2015). Therefore, organizations invest more and more

in circumstances that could encourage them to cultivate their workers who are “have a strong desire for significant accomplishment and mastering of skills and pursue high performance standards” (Schaufeli & Salanova, 2014, p. 312). Further, a numerous companies demand workers who seem to be energetic and

enthusiastic in their job, and thus are totally engaged at work. Organizations are increasingly persuaded that employee's work engagement is the key to sustaining corporate profitability and growth. In other words, organizations would benefit from having employees who are engaged at work. According to Bakker and Demerouti (2008) observed that employees who are engaged at work are more productive and creative, and they are motivated to go beyond to attain the organization's objectives.

Some researchers' findings (e.g., Teng et al., 2007; Salanova & Schaufeli, 2008) participate in the same inference which, engaged workers at work seems to be one of the main sources to a successful organization. In an academic and practical study on work engagement, evidence suggests that it is greatly related through a spacious scope of favorable organizational consequences: aloft profits and masterly development (Xanthopoulou et al., 2009). A 12-month study across more than 1,000 companies around the globe by AON (2018) found that firms with lofty scales of engaged employees exceed others accompanied by low engaged workers for major monetary measures: earnings per share, operating revenue and net income growth.

An issue lies with the fact that human-resource practitioners and supervisors are continuously being faced with the crucial challenge as to how they can make their employees to be engaged. However, Gallup (2021) points out that the huge number of employees around the world are "not engaged" or "actively disengaged" in a place of work. Thus far, Gallup's "State of the global workplace" report (2021) has been suggested that the employees who actively engaged around the globe were at most 20% in their works among more than 100,000 business firms. Whilst the employees who are actively disengaged (or not engaged) at their job is 85%. Even though work engagement degrees alter frequently along countries and industries. For example, the highest percentage of engaged employees as compared to other regions was the U.S and Canada region. In the Algerian context, there are 12% only are engaged in their works, while 35% are not engaged and 53% are actively disengaged (Gallup, 2013). While Gallup (2021) indicated that Algeria has the lowest percentage of engaged employees in the Middle East and North Africa region (MENA) by 5% only. As noted, this rate has been

decreased in 2021 with 7% then 2013, because the situation of the most Algerian organizations is very bad in terms of its inability to create work engagement, thus affect the rate of productivity and job performance (Bou Makhoul & Benbrika, 2018).

So far, however, for the purpose of obtaining the high level of work engagement on employees and protect those employees to remain engaged is not a simple job because there are many challenges may face employees to be disengaged at a work. In most situations, there are some challenges that may affect employees to be engaged at work. This means employees need to enhance themselves to have personal resources that make them strong or enhance them to be engaged at work in facing those challenges. Almost 30 years ago, Hobfoll (1989) formulated Conservation of Resources (COR) theory, centered around when challenges or difficulties are increased, personal resources (for example, Self-efficacy, optimism and mindsets) play an important role in maintaining work engagement. As described by the Job Demands-Resources (JD-R) model of work engagement, which conducted by Bakker and Demerouti (2008) argued that personal resources are observed as fundamental factors to build work engagement. Further, Latham (2012) proposed that useful improvements in HRM and organizational behavior may result from relying on fully developed conceptualizations in the psychologist field. According to Carol Dweck theory (Dweck, 1986, 1999, 2006), the concept of mindsets could be another personal resource that provides the predicting work engagement (Keating & Heslin, 2015).

Employees who considered that their attributes are changeable and malleable are labeled growth mindsets, whereas people who considered that their attributes are unchanging and fixed are labeled fixed mindsets (Dweck, 1986, 1999, 2006). It has been proposed that those workforces who hold this kind of mindset are could be highly engaged at a workplace because this kind of mindset provides opportunities for personal growth. Apart from that, there is another factor that may positively affected work engagement that is positive emotions. Evidence suggests that positive emotions is among the most important factors that positively predict work engagement (Burić & Macuka, 2018; Salanova et al., 2014; Van Den Tooren & Rutte, 2016; Gloria &

Steinhardt, 2017). According to Fredrickson's Broaden-and-Build Theory of Positive Emotions (2001), the positive relationship between positive emotions and work engagement may be explained by how positive emotions can inspire people to complete tasks and foster emotional support among them. The primary aim of this paper is to provide empirical and theoretical evidence for the claim that positive emotions mediate the relationship between a growth mindset and work engagement amongst academic staff in Algerian context.

Literature review

It has previously been conclusively shown that work engagement is predicted by their basic self-evaluations (Karatepe & Demir, 2014; Rich et al., 2010), proactive personality and conscientiousness (Christian et al., 2011; Bakker et al., 2012; Agarwal & Gupta, 2018), psychological capital (Avey et al., 2008; Gupta, & Shaheen, 2017), as well as personal resources (Airila et al., 2014; Xanthopoulou et al., 2007, 2009). So far, however, there has been little discussion about implicit theory of intelligence or so-called mindset which has an impact on work engagement (Keating & Heslin, 2015; Caniëls et al., 2017). This study will be recognized the mindset of employees along the conception of the growth mindset, which proposed by Dweck (2006). Academic researchers such as Keating and Heslin (2015) have pointed out that the growth mindset plays a critical role in work engagement improvement.

In a study conducted by Heslin (2010) proposed that work engagement relies on employees' mindset and whether their capacities are changeable or malleable (Dweck, 2006). The researcher revealed that mindset might impact work engagement through many ways, especially, through setbacks interpretation, effort's view, development enthusiasm and psychological presence (Heslin, 2010). When individuals are equipped with growth mindset, they interpret their capabilities as the ability to be cultured via development initiatives and targeted practice such as work engagement (Heslin, 2010). People with growth mindsets, therefore, commonly show the high level of effort as a vital role to develop any capacity (Heslin, 2010). Caniëls et al., (2018) argued that those individuals with a growth mindset disappointing performances stem from the

insufficient strategies and or efforts, dense effort and struggling intensively to learn methods to excel efficiently and to be more engaged at work (Heslin, 2010). However, there have been few empirical investigations into the organizational psychology field is a gap that the current research will seek to redress. Apparently, researchers statistically found that there is not a direct relationship between mindset and work engagement ($\beta = 0.002$; $p = 0.975$) (Caniëls et al., 2018). In addition, Caniëls et al., (2018) statistically demonstrated that it was not possible to investigate the direct relationships of the growth mindset and work engagement. Empirically, however, the nature of the mindset remains unclear whether mindset predicts work engagement. Specifically, the current research will consider if mindset meaningfully relates to work engagement. Accordingly, this research hypothesized that:
H1: There is a positive relationship between growth mindset and work engagement.

Besides, There are many studies argued that growth mindsets are positively related to positive emotions (Howell, 2016; Yeager et al., 2014; Fredrickson, 2002, 2003; Schleider et al., 2016; Burnette, et al., 2013). Broaden-and-build theory by Fredrickson (2003) suggested that the positive emotions broaden an individual's momentary mindset, and by doing so help to build enduring personal resources. Accordingly, Fredrickson's (2003) theory of broaden-and-build argued that the extended mindsets (or so-called growth mindsets) and positive emotions create profound and coping with effects. Cultivation of a growth mindset induced to lower strain and burnout and led to a greater extent of positive emotions (Howell, 2016; Yeager et al., 2014). People of emotional experience's growth mindset can extract positive emotions (Romero et al., 2014). However, Howell (2016) suggested for further research on the extent of whether growth mindsets predict positive emotions and the possibility that positive emotion itself fosters growth mindsets.

In addition, they claimed that further research should be undertaken to investigate if growth mindsets predict positive emotions like joyfulness and hopefulness, which are related to behavioral consequences (such as work engagement) (Howell, 2016). Schroder et al., (2015) argued that growth mindsets endorsement would be associated with fewer

negative emotions like psychological symptoms of anxiety, depression, perfectionism, and interpersonal problems. They also found that individuals with more of the growth mindsets would be more distinctly possible to attain positive emotions, and fewer likely to engage in expressive negative emotions (Schroder et al., 2015). Hence, it is postulated that:

H2: There is a positive relationship between growth mindsets and positive emotions.

In light of recent investigations, it is becoming extremely difficult to ignore the existence of the causal relationship exists between positive emotions and work engagement in various settings and countries (Salanova et al., 2014; Bakker et al., 2012; Green et al., 2017; Burić & Macuka, 2018; Gloria & Steinhardt, 2017; Van Den Tooren & Rutte, 2016). Engaged employees are regarded as elated productive employees. For instance, engaged employees are suggested to frequently be exposed to positive emotions, such as joy, happiness, and passion, exposed to better health, self-creation of personal resources, the transfer of own engagement to other employees (Bakker and Demerouti, 2008). Besides, Salanova et al., (2011) conducted their study for university and secondary schools' students and concluded that the personal resources are associated with positive emotions (satisfaction, enthusiasm and comfort) which helped projecting work engagement in future.

Goswami et al., (2016) concluded that positive humor of leaders is associated with positive emotions in workplace, and which it is correlated with work engagement of employees. Therefore, work engagement thrives at work through positive emotional experiences, employees who are highly engaged tend to experience quick learning, career expansion, improvement and personal growth (Green et al., 2017). However, researchers proposed for carrying out more research in future which evolve on encouraging positive emotions in an empirical perspective or by intervention means to examine its added value to envisage work engagement (Ouweneel

et al., 2012a; Goswami et al., 2016). Thus, this study seeks to provide empirical and theoretical evidence for the claim that positive emotion as a brilliant feeling that employees should have, which lead them to be engaged at work. Accordingly, it is hypothesized that:

H3: There is a positive relationship between positive emotions and work engagement.

Broaden-and-build theory by Fredrickson (2003) suggested that the positive emotions broaden an individual's momentary mindset, and by doing so help to build enduring personal resources. Accordingly, Fredrickson's (2003) theory of broaden-and-build argued that the extended mindsets (or so-called growth mindsets) and positive emotions create profound and coping with effects. The extent to which positive emotions may also indirectly contribute to work engagement through creating personal resources (Salanova et al., 2010), like a growth mindset that has a powerful motivational ability and consistently indicates that such personal resource is often a strong predictor factor for work engagement (Keating & Heslin, 2015; Caniëls et al., 2018). Therefore, based on the above discussion, the researcher concluded that employees with growth mindsets who experienced positive emotion are supposed to be highly engaged at workplace. Moreover, positive emotion enhances the causal relationship between growth mindsets and work engagement. However, there is a notable paucity of evidence-based literature describing the impact of positive emotions as mediator (in this research) on an unambiguous relationship between positive emotions and work engagement. Besides, Howell, (2016) asserted that further studies are needed on whether growth mindset related to positive emotions that lead to boost behavioral results (such as work engagement), and whether employees may have growth mindsets to generate positive emotions. Hence, it could conceivably be hypothesized that:

H4: Positive Emotions mediates the relationship between growth mindsets and work engagement.

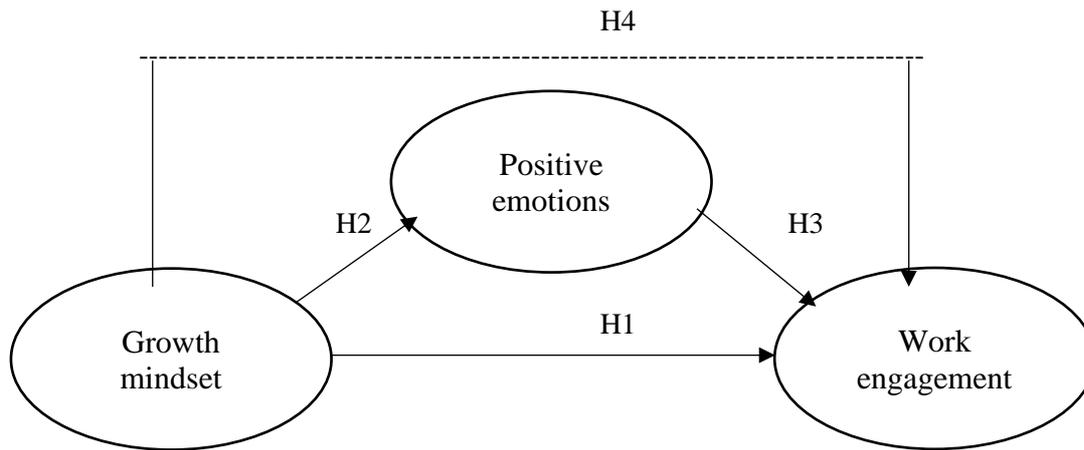


Figure 1. Conceptual model.

→ Note: () lines refer direct and (- -) dotted line refers indirect hypotheses.

Research methodology

Research Design

This study chooses a quantitative research approach dependent on the accompanying reasons. As mentioned earlier, this paper intends to investigate the mediating role of positive emotions in the relationship between growth mindsets and work engagement. In addition, there is another aim of this investigation is to explore the most important factors that influencing work engagement. This study is cross-sectional research whereby data is collected, analyzed, and summarized statistically while conclusions are drawn at a specific date. Individuals (academic staffs) use as the unit of analysis because respondents' evaluations of personal resources serve as the foundation for understanding their effect on work engagement. The primary data used in the research has been gathered at a single moment in time (cross-sectional study) via distributing questionnaires. Therefore, a questionnaire is deemed appropriate in examining various attitudinal and behavioral constructs in this cross-sectional study.

Participants

The higher education sector in Algeria contains 50 universities and all of them are public

institutions (Ministry of Higher Education and Scientific Research, 2020). These institutions are in three different regions (east, west and middle) of Algeria. There are 11 universities in the west region, 17 universities in the middle region and 22 universities in east region (Ministry of Higher Education and Scientific Research, 2018). In this study, every two universities have been randomly selected from different regions of the country (Algeria), the western, eastern region, and middle region. The estimated total population was acquired through the summation of the quantity of scholarly staff in every college is 7,184 (Ministry of Higher Education and Scientific Research, 2020). In accordance with Krejcie and Morgan (1970), Cavana et al. (2001), when the population size ranged from 7000-8000, the suitable sample size in this research should be ≥ 364 academics. Nevertheless, the size of the sample was multiplied by two to minimize error in sampling and to take care of nonresponse rate issue (Hair et al., 2008). Hence, 728 was selected as the total number of questionnaires. The academics position, from Lecturer Class B to professors are the sampling elements or the reasonable respondents that will participate in this examination.

Table 1
Demographic Analysis

Demographic variables	Description	Frequency	Percentage
Gender	Male	153	45.4
	Female	184	54.6

	Total	337	100
Age	Less and 35 years	90	26.7
	Between 36 and 45	149	44.2
	between 46 and 55	72	21.4
	56 years and above	26	7.7
	Total	337	100
Highest Qualification	Master	81	24
	PhD	256	76
	Total	337	100
Designation	Lecturer Class B	88	26.1
	Lecturer Class A	69	20.5
	Senior Lecturer Class B	66	19.6
	Senior Lecturer Class A	76	22.5
	Professor	38	11.3
	Total	337	100
Years of Working Experience	1 – 5 years	78	23.1
	6 – 10 years	129	38.3
	11 – 15 years	55	16.3
	More than 15 years	75	22.3
	Total	337	100

The data has been collected at the end of March 2021. The sampling procedures used in this study were both stratified and simple random sampling techniques. Besides that, a sample of members from every stratum might be drawn utilizing a simple random sampling when the population has stratified in a certain significant manner such as academic level, gender, age, position and experience. At the end of the survey period, a total of 415 were returned, yielding a return rate of 57%. Fifty-nine respondents' data were excluded as they failed to complete the survey where a few data per case is missing. Therefore, data from 356 participants are potentially available for further analysis. According to Hair et al., (2016) stated that it is also important to exclude outlier cases (i.e., 19) from analysis as they are not representative of the sample. Out of the total 337 respondents, the number of female 54.6 percent exceeded the male 45.4 percent. Most

of the respondents are relatively young, as the largest group of respondents are with the age range from 36-45 (44.2%) and less than 26.7, followed by those with age range of 46 and 55 (21.4%), and 56 years and above (7.7%). With regards to the qualification of the academics, all of the respondents have at least Master's degree while there are 76% respondents with PhD qualification. It is apparent from this table that most of the respondents are lecturer class B (26.1%) and senior lecturer class A (22.5%), which are followed by lecturer class A (20.5%), senior lecturer class B (19.6%), and professor (11.3%). Moving on to the academics' work experience, the analyses of respondents' position in their present university showed that majority of them (38.3%) serve between 6 and 10 years with their current institution. Rank second are those who have been serving the university less than five years, which comprise of 23.1% of the total respondents. This is

followed by 22.3% respondents who have been serving with their respective universities for more than 15 years. Finally, those who have been servicing their present university between 11 to 15 years are the smallest group in the study, constituting only 16.3% (Table 1).

Measures

Measurement for growth mindset has been adapted from Dweck et al. (1999). The scale contains four items expressing a growth mindset (i.e., "No matter who you are, you can significantly change your intelligence level") (Dweck, 1999). Most of the studies have used 6 points scale to avert a neutral midpoint (1 = strongly disagree, 6 = strongly agree) (Poon & Koehler, 2008; Burnette & Pollack, 2013). The scale coefficient alpha in the range of 0.76 and 0.98 (Blackwell et al., 2007; Bråten & Strømsø, 2004, 2005; Cabello & Fernández-Berrocal, 2015; Dai & Cromley, 2014; De Castella & Byrne, 2015; Fontaine & Elkheloufi, 2015).

The positive emotions were assessed using 10 items of positive emotions scale (which modified from Differential Emotions Scale: mDES) developed by Fredrickson et al., (2003). This instrument can be used with different time instructions, such as "the past few days," "the past few weeks," "the past year," and "in general." The current study concerns general experiences of emotion, so the "in general" time instructions will be used. Every item or question asked respondents to remember their experienced positive emotions in general (e.g., "In general, I have felt amused, fun-loving, or silly,"). The ranging response choices framed on the scale of 6 points from strongly disagree (1) to strongly agree (6). There are obvious suggestions (e.g., Fredrickson et al., 2003; Cohn et al. 2009; Rodríguez-Rey et al., 2016; Gloria & Steinhardt, 2017) in accepting the reliability of positive emotions subscale, ranged from $\alpha = 0.79$ to $\alpha = 0.94$.

Work engagement as the dependent variable was operationally defined by employing nine items of "Utrecht Work Engagement Scale (UWES-9)" developed and applied by Schaufeli et al., (2006). This instrument is seen as being reliable and valid for the measurement of work engagement. Previously published articles were large enough to provide reliable estimates of work engagement and its dimensions, where the alpha scale coefficient in the range between $\alpha = 0.68$ and $\alpha = 0.93$ (De Bruin & Henn, 2013; Schaufeli et al., 2006;

Yoo & Arnold, 2014; Gloria & Steinhardt, 2017; Sinval et al., 2018). Besides that, the range of agreement of the dependent variable was used in this paper based on 6-point Likert Scales from strongly disagree =1 to strongly agree = 6. Higher overall scores reflect higher work engagement.

Data Preparation and Screening

The process of data preparing, and screening was used to improve data analysis and determine the nature of data distribution (Tabachnick & Fidell, 2007). According to Hair et al. (2016), the process of data preparing, and screening entails treatment with missing data, determining and treating univariate and multivariate outliers, common method variance (CMV) and, lastly, monitoring the line up between data set and multivariate analysis assumption, like multicollinearity test, normality test, and homoscedasticity. Following that, the data was verified for missing values, which there were none. However, those copies of the questionnaire with no missing data were selected for the further testing. Regarding Lynch (2013), Chi-square (χ^2) distribution, outliers were removed using Mahalanobis distance, which was significant at the 0.001 level. In addition, it has been found no evidence for common method variance, as all the factors extracted have eigenvalues more than 1.0 and also first factor explains only 20.230% of the total variance which is less than 50% (Podsakoff et al., 2003).

Results

Measurement model

In Partial Least Squares Structural Equation Modeling (PLS-SEM) through the application of SmartPLS 3.0, there are two different steps for assessing research model, the measurement model and the structural model (Hair et al., 2017; Kline, 2016). Measurement model is a structural correlation among latent variables and their indicators (Tabachnick & Fidell, 2007), which is also known as means of outer model (Hair et al., 2017). According to Hair et al., (2017) suggested that the outer model can be assessed using the values of composite reliability (CR), Cronbach's alpha (α), and average variance extracted (AVE) obtained for convergent and discriminant validity. According to the criteria of outer loadings proposed by Hair et al., (2017), the items' loadings range that were maintained for

calculating the model from 0.588 to 0.949, which is a widely accepted range in exploratory research since they met the threshold criteria of AVE (0.5) and CR (0.7) given by Kline (2016) and Hair et al. (2017). Accordingly, it appears that no deletion is necessary to raise the construct's CR and AVE values. Convergent validity has been proven by Hair et al., (2017) as minimum AVE ranged between 0.576 and 0.934 and CR ranges between 0.924 and 0.993 (Table 2).

The discriminant validity of the items has been assessed using the cross-loadings (the bold diagonal) as shown in Table 2. Moreover, the discriminant validity was further checked via the heterotrait-monotrait ratio (HTMT) of the correlations following the suggestion of Henseler et al. (2015). As shown in Table 3, all correlation coefficient of variables were less than 0.90, showing that discriminant validity is not an issue in this research.

Table 2

Convergent Validity with loading, cross-loading, AVE, CR, and α .

Variables	Items	Growth mindset	Positive emotions	Work engagement	CR	α	AVE
Growth mindset	GM1	0.967	0.427	0.196	0.977	0.968	0.914
	GM2	0.969	0.408	0.165			
	GM3	0.938	0.396	0.155			
	GM4	0.949	0.369	0.170			
Positive emotions	PE1	0.421	0.949	0.295	0.993	0.992	0.934
	PE2	0.448	0.940	0.390			
	PE3	0.408	0.944	0.303			
	PE4	0.421	0.943	0.395			
	PE5	0.419	0.932	0.393			
	PE6	0.400	0.942	0.386			
	PE7	0.390	0.940	0.287			
	PE8	0.434	0.908	0.272			
	PE9	0.422	0.942	0.292			
	PE10	0.271	0.891	-0.195			
Work engagement	WE1	0.157	0.222	0.784	0.924	0.906	0.576
	WE2	0.162	0.141	0.854			
	WE3	0.154	0.195	0.703			
	WE4	0.151	0.263	0.852			
	WE5	0.159	0.224	0.819			
	WE6	0.091	0.222	0.752			
	WE7	0.106	0.201	0.687			
	WE8	0.125	0.266	0.701			
	WE9	0.123	0.204	0.645			

Note: CR = composite reliability; α = Cronbach alpha; AVE = average variance extracted.

Table 3

Heterotrait-Monotrait Ratio (HTMT)

Variables	1	2
Growth mindset		
Positive emotions	0.425	
Work engagement	0.292	0.408

The quality of model was examined via standardized root mean residual (SRMR) and predictive relevance (Q^2). The result of 0.063 for SRMR that is less than 0.08 and revealed to be acceptable (Hair et al., 2017). Meanwhile,

when the cross-validated redundancies (Q^2) are more than zero (0), the model can be considered as predictive significance (Hair et al., 2017) as shown in Table 4. The coefficients of determination (R^2) of 0.248 and 0.259,

according to Hair et al. (2017), imply that the exogenous variable has small influence on the

endogenous variables – positive emotions and work engagement, respectively.

Table 4
Goodness of Fit for the model

Variables	R ²	Q ²	SRMR
Positive emotions	0.248 (small)	0.184 (small)	0.066 (good)
Work engagement	0.259 (small)	0.228 (medium)	

Note: SRMR = standardized root mean residual; Q² = predictive relevance; R² = coefficient of determination.

Structural model

The structural model is also measured besides the successful assessment of the measurement model, which was the prerequisite for sequential analyses in SmartPLS 3.0. To evaluate the hypotheses, consistent bootstrapping was performed to 5,000 resamples of a reflective measurement model, as proposed by Hair et al. (2017). In addition, the inclusion of control variables such as gender, age and higher qualification have been tested to give more clearer plausible interpretation of the findings (Baum & Locke, 2004). The influence of control variables on work engagement was examined, comprising gender ($\beta = 0.107$, $t = 4.015$, $p < 0.05$), age ($\beta = 0.045$, $t = 1.713$, $p < 0.05$), and higher qualification ($\beta = 0.065$, $t = 2.266$, $p < 0.05$). This research reveals that certain gender and higher education had substantial effects on work engagement, which would be consistent with the findings of Lu, Xie & Guo (2018) and Rabiul & Yean (2021). The R squared value of control variables is 0.234, while R² without control variables = 0.257; hence given small

change of R² by 0.024. In line with previous research (e.g., Tsauro et al., 2019; Rabiul & Yean, 2021), gender, age and higher qualification as control variables were removed from structural equation modelling.

Table 5 displays the findings of the direct hypotheses testing. Growth mindsets ($\beta = 0.211$, $t = 8.413$, $p < 0.01$) has a significant effect on work engagement. Thus, Hypothesis (H1) was supported. Growth mindsets have been found significant positive effect on positive emotions ($\beta = 0.286$, $t = 7.491$, $p < 0.01$). Thus, the hypothesis (H2) was supported. Moreover, Positive emotions ($\beta = 0.213$, $t = 7.593$, $p < 0.01$) have significant positive effect on work engagement. Therefore, the hypotheses H3 was supported.

As regards mediating effects, the growth mindsets and work engagement model, data showed that the positive emotions construct had a substantial mediation impact on the link between growth mind-sets and work engagement ($\beta = 0.105$, $t = 7.466$, $p < 0.01$). Thus, the hypothesis (H4) was supported (Table 5).

Table 5
Direct and indirect hypotheses.

	Hypothesis	β	t- Values	Decision	95% confidence interval bias corrected	
					LL	UL
H1	GM \Rightarrow WE	0.211	8.413	supported	0.037	0.137
H2	GM \Rightarrow PE	0.286	7.491	supported	0.094	0.201
H3	PE \Rightarrow WE	0.213	7.593	supported	0.107	0.346
H4	GM \Rightarrow PE \Rightarrow WE	0.105	7.466	supported	0.048	0.085

Discussion

The findings illustrate that H1 growth mindset is positively and significantly affecting work engagement. Therefore, this result is consistent with the result of previous studies (Heslin, 2010; Nalipay et al., 2019; Keating and Heslin,

2015; Zeng et al., 2019, Frondoza et al., 2020). A search of the literature revealed that individuals who thought of intelligence as a change-able attribute, more positive views about effort, and engaged in more effort-based techniques, such as completing tasks and

increasing productivity (Blackwell et al., 2007). The second hypothesis was supported where growth mindsets have significant positive impacts on positive emotions. The findings are in line with prior research results (Costa and Faria 2020; Romero et al., 2014; Nalipay et al., 2019; Choi, 2019). Therefore, those employees who have higher growth mindsets are more likely to experience positive emotions and are less likely to exhibit negative emotions (Schroder et al., 2015). This may have been explained by the fact that employees with a growth mindset, may have optimistic ideas about the consequence of their efforts and perform their job with eagerness, enjoyment, and enthusiasm.

The finding showed that the impact of positive emotions on work engagement is positive and significant. This result seems to be in line with the findings of another published articles (Bakker et al., 2012; Burić & Macuka, 2018; Van Den Tooren & Rutte, 2016; Gloria & Steinhardt, 2017; Goswami et al., 2016; Green et al., 2017). It is recommended that engaged employees be regularly exposed to positive emotions like as pleasure, enthusiasm, and passion, that they be subjected to improved health, that they self-create personal resources, and that they transfer their own engagement to other employees (Bakker and Demerouti, 2008).

Finally, H4 is supported by empirical data, where the positive emotions significantly mediate the link between growth mindset and work engagement. The degree to which positive emotions could indirectly contribute to work engagement by building unique resources, such as a growth mindset, which has a powerful motivating ability and consistently suggests that such a personal resource is mostly a positive predictor variable for work engagement (Keating & Heslin, 2015; Canils et al., 2018).

Implications of the study

The findings from this study make several contributions to the body of knowledge providing fresh insights, especially in the Algerian context, into the factors influencing work engagement through major impacts, along with mediating impact. Additionally, the research displayed that some variables had a greater impact on work engagement than others, adding to the increasing body of knowledge about what factors are essential in

improving work engagement. Moreover, the current study makes a major contribution to research on the broaden and build theory and job demands-resources model of work engagement, through reinforcing work engagement as a major factor of sustainable competitive advantage for an organization. The current study used the theoretical framework of the broaden and build theory and job demands-resources model of work engagement to demonstrate the relationship between growth mindset, positive emotions, and work engagement, as well as the role of positive emotions as the mediator of the relationship between growth mindset, and work engagement.

Even though most of the prior research on the factors mentioned and work engagement have been established in western countries, the findings of such research may not be generalisable and valid in other settings, such as Algeria. Those findings from various study settings, distinct country cultures, and practices of various and diverse human resource types have a different impact in developing countries than in developed countries. Consequently, examining the variables affecting work engagement in a new context that represents the perspective of a developing country has added to theoretical knowledge. The study's findings validated the impact of individual, behavioural, and organizational variables on employee attitudes and behaviours in a non-western country. Furthermore, the current research fills a research gap in the literature on work engagement in the setting of Algeria in specifically, the Middle East and North Africa in overall, and indeed the whole world. Through looking into work engagement among employees in Algeria's HEIs sector, the research seemed to be able to address a theoretical gap. The study's results would therefore encourage researchers and top managers to pay more attention to work engagement not just only in HEIs but also in other organizations of various industries in Algeria.

In addition, the research revealed that the growth mindset was one of the variables that had a favorable influence on academics' positive emotions and work engagement within universities. Accordingly, if the universities want to increase positive emotions and work engagement among their academics, they must constantly support attaining growth mindset to

their academics, particularly those involved in teaching and learning. It might be achieved by continuously allowing academics the flexibility to decide how to execute and arrange their academic tasks, as well as how to attain the university's targeted objectives. The management of universities may promote a growth mindset culture within an institution in terms of enforcing and assisting academics in converting and developing their mindsets to be growth mindsets.

Therefore, to foster such behavior, the top executives of Algerian universities should invest in cultivating their academic staff capacities and skills, through providing diverse training and development programs. Those considerable initiatives may cultivate and expand the mindsets of academics and grow towards a culture of growth mindset. This study provides another possible mechanism for promoting a culture of growth in continuing to invest in developmental Human resource management practices (for example performance coaching, sponsored continuing education, Rewards and Recognition), which are likely to highlight academics' potential for growth.

Conclusions

The current research provides several valuable perceptions into the implications of work engagement, its contribution should be considered in light of several limitations. Firstly, one of the scopes of this research was limited in terms of the participants, which only included academics, who have more than one year of experience, and they are permanent workers at their present universities. Therefore, further research should be undertaken to focus on the individual effect of all academics who may not have any work experience and permanent contracts (or temporary contracts) for attempting to predict work engagement. In addition, the results mainly included academics from public universities' perspectives on issues that may impact their work engagement. However, academics from private higher and graduate schools were not included in the research. To develop a full picture of work engagement, therefore, additional study is needed to expand the investigation of the impact of growth mindset and work engagement on different types of higher education institutions such as national higher schools, which might contribute to the

knowledge of academics' work engagement issues.

Furthermore, the findings of this paper have revealed that growth mindset play an important role directly and indirectly in predicting work engagement. Even though work engagement and burnout are linked to critical job outcomes (Bakker, Demerouti, & Sanz-Vergel, 2014). However, it might be interesting to look at the role of growth mindset in (lower) burnout levels. In the present research, work engagement was the primary outcome to be considered as dependent variable. Whereas the work engagement is considered to be a positive job-related outcome. Nonetheless, future studies are needed to shed a contemporary light on the contentious issue of negative job-related outcomes such as burnout. Moreover, it is recommended that further research be undertaken in the impact of growth mindset to reduce the level of burnout among employees. Apart from, a cross-sectional study was undertaken in the current study to collect the data at a single period (Sekaran & Bougie, 2016). This method limits the researcher's capacity to draw a causal link between the significant factors in the present research. By contrast to longitudinal studies, cross-sectional approaches do not track changes in variables over time, making them unsuitable for causal study, however, Cohen et al., (2007) asserted those longitudinal studies allow the researcher to demonstrate causation and draw conclusions. Whereas the temporal limitations of such a research make longitudinal research impossible at this moment in time, future research should investigate longitudinal study to get deeper insight into the causal consequences of the predicted connections in this study. Therefore, this method is especially relevant given the relative scarcity of longitudinal studies for work engagement research (e.g., Hakanen et al., 2008; Xanthopoulou et al., 2008) in the Middle East and North Africa (MENA) setting compared to the West.

References

- Agarwal, U. A., & Gupta, V. (2018). Relationships between job characteristics, work engagement, conscientiousness and managers' turnover intentions: A moderated-mediation analysis. *Personnel Review*, 47(2), 353-377.
- Ahmad, A., Omar, Z., Radzali, F. M., & Saidu, M.B., (2016). Religiosity and emotional stability as determinants of citizenship and

- deviant behavior at work. *Social Sciences (Pakistan)* 11(22), pp. 5520-5525.
- Airila, A., coh, J. J., Schaufeli, W. B., Luukkonen, R., Punakallio, A., & Lusa, S. (2014). Are job and personal resources associated with work ability 10 years later? The mediating role of work engagement. *Work & Stress*, 28(1), 87-105.
- Alzyoud, A. A., (2016). Job demands and job resources on work engagement mediating by job satisfaction in Jordan higher education sector. *International Journal of Social Science and Economic Research*, Volume: 01, Issue:05, 488-506.
- Aon (2018). Global Employee Engagement Trends Report. Retrieved from http://images.transcontinentalmedia.com/LAF/lacom/Aon_2018_Trends_In_Global_Employee_Engagement.pdf
- Avey, J. B., Wernsing, T.S., & Luthans. F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *The Journal of Applied Behavioral Science*, 44(1), 48-70
- Bakker, A. B., & Schaufeli, W. B. (2015). *Work engagement*. Wiley Encyclopedia of Management, 1-5.
- Bakker, A. B., Demerouti, E., & Lieke, L. (2012). Work engagement, performance, and active learning: The role of conscientiousness. *Journal of Vocational Behavior*, 80(2), 555-564.
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD-R approach. *Annu. Rev. Organ. Psychol. Organ. Behav.*, 1(1), 389-411.
- Bakker, A.B. & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13, 209-223.
- Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of applied psychology*, 89(4), 587.
- Blackwell, L., Trzesniewski, K., & Dweck, C. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*, 78, 246-263. <http://dx.doi.org/10.1111/j.1467-8624.2007.00995.x>.
- Bou Makhlof, M. & Benbrika, I. (2018). The status of work engagement under the employment policy of the Algerian public institutions. *Journal of Studies in Sociology of Organizations*. ISSN: 2437- 0827
- Boyd, C. M., Bakker, A. B., Pignata, S., Winefield, A. H., Gillespie, N., & Stough, C. (2011). A Longitudinal Test of the Job Demands Resources Model among Australian University Academics. *Applied Psychology*, 60(1), 112-140.
- Bråten, I., & Strømsø, H. I. (2004). Epistemological beliefs and implicit theories of intelligence as predictors of achievement goals. *Contemporary Educational Psychology*, 29, 371-388.
- Bråten, I., & Strømsø, H. I. (2005). The relationship between epistemological beliefs, implicit theories of intelligence, and self-regulated learning among Norwegian postsecondary students. *British Journal of Educational Psychology*, 75, 539-565.
- Burić, I., & Macuka, I. (2018). Self-efficacy, emotions and work engagement among teachers: A two wave cross-lagged analysis. *Journal of Happiness Studies*, 19(7), 1917-1933.
- Burnette, J. L., O'boyle, E. H., VanEpps, E. M., Pollack, J. M., & Finkel, E. J. (2013). Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychological Bulletin*, 139(3), 655.
- Burnette, J. L., O'boyle, E. H., VanEpps, E. M., Pollack, J. M., & Finkel, E. J. (2013). Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychological Bulletin*, 139(3), 655.
- Cabello, R., & Fernández-Berrocal, P. (2015). Implicit theories and ability emotional intelligence. *Frontiers in Psychology*, 6, 700.
- Caniëls, M. C., Semeijn, J. H., & Renders, I. H. (2018). Mind the mindset! The interaction of proactive personality, transformational leadership and growth mindset for engagement at work. *Career Development International*, 23(1), 48-66.
- Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2001). *Applied business research: qualitative and quantitative methods*. Singapore: John Wiley& Sons.
- Choi, J. (2019). How Creative Mindset Is Involved in Positive Emotions and Attitude that Affects Creative Design Process. *In International Conference on Applied Human Factors and Ergonomics* (pp. 3-12). Springer, Cham.
- Christian, M.S., Garza, A.S., & Slaughter, J.E. (2011). Work engagement: A quantitative

- review and test of its relations with task and contextual performance. *Personnel Psychology*, 64, 89–136.
- Cohen, L., Manion, L. & Morrison, K. (2007). *Research methods in education (6th ed.)*. Abingdon, Oxon: Routledge.
- Costa, A., & Faria, L. (2020). The impact of implicit theories on students' emotional outcomes. *Current Psychology*, 1-10.
- Dai, T., & Cromley, J. G. (2014). Changes in implicit theories of ability in biology and dropout from STEM majors: A latent growth curve approach. *Contemporary Educational Psychology*, 39(3), 233-247.
- De Bruin, G. P., & Henn, C. M. (2013). Dimensionality of the 9-item Utrecht work engagement scale (UWES-9). *Psychological reports*, 112(3), 788-799.
- De Castella, K., & Byrne, D. (2015). My intelligence may be more malleable than yours: The revised implicit theories of intelligence (self-theory) scale is a better predictor of achievement, motivation, and student disengagement. *European Journal of Psychology of Education*, 30(3), 245-267.
- Dweck, C. S., Chiu, C. Y., & Hong, Y. Y. (1995). Implicit theories and their role in judgments and reactions: A word from two perspectives. *Psychological inquiry*, 6(4), 267-285.
- Dweck, C.S. (1986). Motivational processes affect learning. *American Psychologist*, 41, 1040–1048. <http://dx.doi.org/10.1037/0003-066X.41.10.1040>.
- Dweck, C.S. (1999). Self-theories: Their role in motivation, personality, and development. *Philadelphia: Psychology Press*.
- Dweck, C.S. (2006). *Mindsets*. New York: Random House.
- Fontaine, R., & Elkheloufi, A., (2015). Preliminary Evidence of Mindsets and Training Satisfaction in Malaysia. *Malaysian Management Review*. Vol. 50 No. 2 69
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American psychologist*, 56(3), 218.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological science*, 13(2), 172-175.
- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of personality and social psychology*, 84(2), 365.
- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of personality and social psychology*, 84(2), 365.
- Fronozo, C. E., King, R. B., Nalipay, M. J. N., & Mordeno, I. G. (2020). Mindsets matter for teachers, too: Growth mindset about teaching ability predicts teachers' enjoyment and engagement. *Current Psychology*, 1-4.
- Gallup (2017). State of the Global Workplace. Retrieved from <https://www.gallup.com/file/workplace/349484/state-of-the-global-workplace-2021-download.pdf>
- Gloria, C. T., & Steinhardt, M. A. (2017). The direct and mediating roles of positive emotions on work engagement among postdoctoral fellows. *Studies in Higher Education*, 42(12), 2216-2228.
- Goswami, A., Nair, P., Beehr, T., & Grossenbacher, M. (2016). The relationship of leaders' humor and employees' work engagement mediated by positive emotions: Moderating effect of leaders' transformational leadership style. *Leadership & Organization Development Journal*, 37(8), 1083-1099.
- Green Jr, P. I., Finkel, E. J., Fitzsimons, G. M., & Gino, F. (2017). The energizing nature of work engagement: Toward a new need-based theory of work motivation. *Research in Organizational Behavior*, 37, 1-18.
- Gupta, M., & Shaheen, M. (2018). Does work engagement enhance general well-being and control at work? Mediating role of psychological capital. *In Evidence-based HRM: a Global Forum for Empirical Scholarship* (Vol. 6, No. 3, pp. 272-286).
- Hair, J. F., Celsi, M., Ortinau, D. J., & Bush, R. P. (2008). *Essentials of marketing research*. New York, NY: McGraw-Hill/Higher Education.
- Hair, J., Hollingsworth, C.L., Randolph, A.B., Chong, A.Y., 2017. *An updated and expanded assessment of PLS-SEM in information systems research*. *Ind. Manag. Data Syst.* 117 (3), 442–458.
- Hair, J., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2016). *A primer on partial least*

- squares structural equation modelling (PLS-SEM) (2nd ed.)*. SAGE Publications.
- Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative, and work-unit innovativeness. *Journal of Vocational Behavior*, 73, 78-91.
- Hasnah Hassan, S. (2014). The role of Islamic values on green purchase intention. *Journal of Islamic Marketing*, 5(3), 379-395.
- Heslin, P. A. (2010). *18 Mindsets and employee engagement: theoretical linkages and practical interventions*. Handbook of employee engagement: Perspectives, issues, research and practice, 218.
- Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513-524. <http://dx.doi.org/10.1037/0003-066X.44.3.513>.
- Howell, A. J. (2016). Implicit theories of personal and social attributes: Fundamental mindsets for a science of wellbeing. *International Journal of Wellbeing*, 6(3).
- Karatepe, M. O., & Demir, E. (2014). Linking core self-evaluations and work engagement to work-family facilitation: a study in the hotel industry. *International Journal of Contemporary Hospitality Management*, 26(2), 307-323.
- Keating, L.A., & Heslin, P.A., (2015). The potential role of mindsets in unleashing employee engagement, *Human Resource Management Review (2015)*, <http://dx.doi.org/10.1016/j.hrmr.2015.01.008>
- Khan, F., Khan, Q., Malik, M. S., & Qureshi, M. I (2017). Moderating Effect of Social Support on the Relationship between Workload and Disengagement among the Academicians. *Journal of Managerial Sciences*. Volume XI Number 03, 431-444.
- Kline, R. B. (2016). *Principles and practice of structural equation modelling*. Guilford publications (4th edition). A Division of Guilford Publications, Inc.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30,607-610.
- Latham, G.P. (2012). *Work motivation: History, theory, research, and practice (2nd Edition)*. Thousand Oaks, CA: Sage.
- Lewis, C. A., Shevlin, M., McGuckin, C., & Navrátil, M. (2001). The Santa Clara strength of religious faith questionnaire: Confirmatory factor analysis. *Pastoral Psychology*, 49(5), 379-384.
- Lu, X., Xie, B., & Guo, Y. (2018). The trickle-down of work engagement from leader to follower: The roles of optimism and self-efficacy. *Journal of Business Research*, 84, 186-195.
- Lynch, S.M., 2013. *Using Statistics in Social Research: a Concise Approach*. Springer Science & Business Media.
- Ministry of Higher Education and Scientific Research, 2020 <https://www.mesrs.dz/ar//universites>
- Mohamed, M. N., & Messallam, A. A. (2016). The effect of job demands and job resources on academic staff satisfaction in accredited universities in Egypt. *SAM Advanced Management Journal*, 81(3), 46.
- Ouweneel, E., Le Blanc, P. M., Schaufeli, W. B., & van Wijhe, C. I. (2012). Good morning, good day: A diary study on positive emotions, hope, and work engagement. *human relations*, 65(9), 1129-1154.
- Pakpour, A. H., Plante, T. G., Saffari, M., & Fridlund, B. (2014). The Santa Clara Strength of Religious Faith Questionnaire (SCSORF): A validation study on Iranian Muslim patients undergoing dialysis. *Journal of religion and health*, 53(6), 1885-1897.
- Plante, T. G., & Boccaccini, M. (1997b). Reliability and validity of the Santa Clara strength of religious faith questionnaire. *Pastoral Psychology*, 45(6), 429-437.
- Plante, T. G., & Boccaccini, M. T. (1997a). The Santa Clara strength of religious faith questionnaire. *Pastoral Psychology*, 45(5), 375-387.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *The Journal of Applied Psychology*, 88(5), 879-903. <http://doi.org/10.1037/0021-9010.88.5.879>
- Poon, C. K., & Koehler, D. J. (2008). Person theories: Their temporal stability and relation to inter trait inferences. *Personality and Social Psychology Bulletin*, 34, 965-977.
- Rabiul, M. K., & Yean, T. F. (2021). Leadership styles, motivating language, and work engagement: An empirical investigation of the hotel industry. *International Journal of Hospitality Management*, 92, 102712.
- Rahim N. A. A. B. A., and Omar. K. B., (2017). Looking into Working Environment, Integrity

- and Religiosity as Enhancement for Employee's Job Performance in Malaysia. *Journal of Engineering and Applied Sciences*, 12: 1551-1557.
- Rich, B.L., Lepine, J.A., & Crawford, E.R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53, 617–635.
- Rodríguez-Rey, R., Alonso-Tapia, J., & Hernansaiz-Garrido, H. (2016). Reliability and Validity of the Brief Resilience Scale (BRS) Spanish Version. *Psychological Assessment*, 28(5), e101-e110.
- Romero, C., Master, A., Paunesku, D., Dweck, C. S., & Gross, J. J. (2014). Academic and emotional functioning in middle school: The role of implicit theories. *American Psychological Association*. Vol. 14, No. 2, 227–234.
- Salanova, M. and Schaufeli, W. B. 2008. A cross-national study of work engagement as a mediator between job resources and proactive behaviour. *International Journal of Human Resource Management*, 19(1), 116-131.
- Salanova, M., Del Líbano, M., Llorens, S., & Schaufeli, W. B. (2014). Engaged, workaholic, burned-out or just 9-to-5? Toward a typology of employee well-being. *Stress and Health*, 30(1), 71-81.
- Salanova, M., Llorens, S., & Schaufeli, W. B. (2011). “Yes, I can, I feel good, and I just do it!” On gain cycles and spirals of efficacy beliefs, affect, and engagement. *Applied Psychology*, 60(2), 255-285.
- Salanova, M., Schaufeli, W. B., Xanthopoulou, D., & Bakker, A. B. (2010). The gain spiral of resources and work engagement: Sustaining a positive worklife. *Work engagement: A handbook of essential theory and research*, 118-131.
- Schaufeli, W. B., & Salanova, M., (2014). Burnout, boredom, and engagement at the workplace. *John Wiley & Sons*, Ltd. 12, 293-320.
- Schaufeli, W. B., A. B. Bakker, and M. Salanova. 2006. “The Measurement of Work Engagement with a Short Questionnaire a Cross-national Study.” *Educational and Psychological Measurement* 66 (4): 701–16.
- Schleider, J. L., Schroder, H. S., Lo, S. L., Fisher, M., Danovitch, J. H., Weisz, J. R., & Moser, J. S. (2016). Parents' Intelligence Mindsets Relate to Child Internalizing Problems: Moderation Through Child Gender. *Journal of Child and Family Studies*, 25(12), 3627-3636.
- Schroder, H. S., Dawood, S., Yalch, M. M., Donnellan, M. B., & Moser, J. S. (2015). The role of implicit theories in mental health symptoms, emotion regulation, and hypothetical treatment choices in college students. *Cognitive Therapy and Research*, 39(2), 120-139.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Sinval, J., Marques-Pinto, A., Queirós, C., & Marôco, J. (2018). Work engagement among rescue workers: Psychometric properties of the Portuguese UWES. *Frontiers in psychology*, 8, 2229.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Using Multivariate Statistics 5th Ed, 980. <http://doi.org/10.1037/022267>
- Teng, C. I., Huang, K. W. and Tsai, I. L. 2007. Effects of personality on service quality in business transactions. *Service Industries Journal*, 27(7-8), 849-863.
- Tsaur, S., Hsu, F., Lin, H., 2019. Workplace fun and work engagement in tourism and hospitality: the role of psychological capital. *Int. J. Hosp. Manag.* 81, 131–140.
- Van Den Tooren, M., & Rutte, C. (2016). Explaining emotional exhaustion and work engagement: The role of job demands-resources and Type D personality. *International Journal of Stress Management*, 23(2), 147.
- Wnuk, M. (2017). A Psychometric Evaluation of the Santa Clara Strength of Religious Faith Questionnaire among Students from Poland and Chile. *Pastoral psychology*, 66(4), 551-562.
- Xanthopoulou, D., Baker, A. B., Heuven, E., Demerouti, E., & Schaufeli, W. B. (2008). Working in the sky: a diary study on work engagement among flight attendants. *Journal of occupational health psychology*, 13(4), 345.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121-41. doi:10.1037/1072-5245.14.2.121
- Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources.

- Journal of Occupational and Organizational Psychology*, 82, 183–200.
<http://dx.doi.org/10.1348/096317908X285633>.
- Yeager, D.S., Johnson, R., Spitzer, B.J., Trzesniewski, K.H., Powers, J., & Dweck, C.S. (2014). The far-reaching effects of believing people can change: Implicit theories of personality shape stress, health, and achievement during adolescence. *Journal of Personality and Social Psychology*, 106, 867–884.
- Yoo, J. J., & Arnold, T. J. (2014). Customer orientation, engagement, and developing positive emotional labor. *The Service Industries Journal*, 34(16), 1272-1288.
- Zeng, G., Chen, X., Cheung, H. Y., & Peng, K. (2019). Teachers' growth mindset and work engagement in the Chinese educational context: Well-being and perseverance of effort as mediators. *Frontiers in psychology*, 10, 839.