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Teaching Career in Brazilian Higher Education and Work Engagement

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Abstract

This study examined the relationship between work engagement and teaching career among 220 Brazilian federal public university professors. A sociodemographic questionnaire and the Brazilian version of the Utrecht Work Engagement Scale were used as instruments. The collected data was analyzed using descriptive and inferential statistics. The results indicate that professors in more advanced stages of their careers have higher levels of work engagement, and consequently, feel happier and more fulfilled at work. It is important to consider resources that could contribute to raising levels of work engagement through interventions aimed at people management practices in Higher Education, while also taking into account the health and well-being of professors.

Keywords: work engagement, teaching, higher education, career, positive psychology.

Carrera docente en la enseñanza superior brasileña y compromiso laboral

Resumen

Este estudio investigó la relación entre el *work engagement* y la carrera docente entre 220 profesores de una universidad federal pública brasileña. Los instrumentos utilizados fueron un cuestionario sociodemográfico y la versión brasileña de la *Utrecht Work Engagement Scale*. Los datos recolectados fueron analizados utilizando estadísticas descriptivas e inferenciales. Los resultados indican que los profesores en etapas más avanzadas de sus carreras tienen mayores niveles de compromiso laboral y tienden a sentirse más felices y realizados en el trabajo. Es importante considerar los recursos que contribuyen a elevar los niveles de *work engagement* en intervenciones dirigidas a las prácticas de gestión de personas en la educación superior, que tengan en cuenta la salud y el bienestar de los profesores.

Palabras clave: work engagement, docentes, educación superior, carrera profesional, psicología positiva.

Introduction

Higher Education professors undertake activities that are geared towards transforming students into future professionals. These activities are not limited to the technical dimension, i.e., they go beyond knowledge, know-how, and skills. They include relationships and experiences of an affective, evaluative, and ethical nature (Isaia, 2006). Institutionally, the activities are developed based on the pillars of teaching, research, and extension, in addition to administrative duties. However, in practice, teaching in Higher Education is configured as a complex process that is built along a trajectory involving not only the institutional dimension but also, intrinsically, the personal and professional dimensions (Isaia, 2006).

As a fundamental part of the teaching-learning process, professors have a strategic role in the educational context, since they connect students and society (Silva-Júnior, Ferreira & Valentini, 2020). Under this aegis, university teaching has, over time, become an important area of research. The so-called “teaching malaise”, which includes studies on the suffering, Burnout Syndrome, and dissatisfaction that professors experience in the profession, is of great interest to the scientific community. However, the focus on aspects related to health, well-being and happiness, which are considered necessary conditions for good educational practice, has increased in recent years. (Araújo & Esteves, 2016; Geremia & Silva, 2019; Marchesi, 2008; Mesurado & Laudadio, 2019; Rebolo & Oliveira-Bueno, 2014; Ribeiro & Silva, 2020). Work engagement is one of the topics of study that addresses the positive aspects of professors’ occupational activities. This phenomenon, which has been developed in the field of positive psychology, is the main subject of the current investigation.

Work engagement is defined as a positive work-related motivational construct that implies well-being and a sense of job accomplishment. It is also characterized by vigor, dedication, and absorption (Schaufeli, Salanova, González-Romá & Bakker, 2002; Lorente & Vera, 2010; Salanova

& Schaufeli, 2009; Vasquez, Magnan, Pacico, Hutz & Schaufeli, 2015). Vigor is marked by high levels of energy and resilience, the willingness to make an effort at work, and persevere in the face of difficulties. Dedication entails being strongly involved in one’s own work, experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Finally, absorption is characterized by high concentration levels and deep involvement in work, whereby time passes quickly and it is difficult to disconnect from what one is doing (Bakker & Bal, 2010; Salanova & Schaufeli, 2009; Schaufeli et al., 2002). As such, engaged people are more dedicated to their work activities, show greater enthusiasm while performing them, and can stay more focused on their tasks (Bakker, Schaufeli, Leiter & Taris, 2008). These workers not only have a strong sense of belonging to the organization, but also feel inspired and affectively connected to their work. Consequently, engaged people experience well-being and meaningful purposes while performing their work activities.

Similarly, engaged workers tend to be proactive, more productive, and willing to contribute to achieving organizational goals (Bakker, 2011; Lorente & Vera, 2010; Magnan, Vazquez, Pacico & Hutz, 2016; Salanova & Schaufeli, 2009). Generally speaking, it can be said that there are four reasons why engaged workers outperform those who are not engaged. Firstly, they experience positive thoughts, emotions, and feelings, including the psychological states of happiness, joy, and enthusiasm. Secondly, they have higher levels of health. Thirdly, they develop personal and technical resources to achieve better work results. Finally, they transmit their engagement to others (Bakker et al., 2008).

Different theories have guided studies on work engagement since Kahn published his seminal article on the subject, in the 1990s. Work engagement has evolved into one of the most significant concepts in the field, and a primary research model aimed at explaining work engagement is the job demands-resources theory (JD-R) (Bailey, Madden,

Alfes & Fletcher, 2017). This model seeks to capture the fundamental causes and consequences of work engagement. At the same time, JD-R aims to clarify how the demands and resources (both personal and organizational) present in jobs can influence energy depletion and work motivation. Resources generate energy and foster engagement, whereas job demands, when excessive, can require individuals to exert themselves further, leading to illness and subsequent chronic work-related stress, as observed in burnout syndrome (Bakker & Demerouti, 2017).

Currently, work engagement has been the subject of debate among academics and professionals from different areas of knowledge. It also has been gaining momentum in global scientific production since the 2010s (Camões & Oliveira-Gomes, 2021; Fletcher, Bailey, Alfes & Madden, 2020). In part, the recent increase in studies is due to evidence on the construct and its positive relationship with job performance, customer satisfaction, and productivity. Moreover, there is the fact that high levels of engagement are strongly associated with positive behaviors, as organizational citizenship and social support, worker health, and well-being. (Camões & Oliveira-Gomes, 2021; Field & Buitendach, 2011; Schaufeli, 2014). The survey conducted by Camões and Oliveira-Gomes (2021) showed an increase from 210 publications on work engagement, between 2001 and 2010, to 3,117 publications, between 2011 and 2019. However, the literature related to professors' work engagement in any teaching modality is more restricted (Geremia & Silva, 2019), making it a vast field to be explored.

The rise of positive psychology has stimulated the development of research into teachers' positive emotions related to aspects as engagement and well-being at work. These studies have produced evidence that contributes, among other aspects, to understanding the relationships between professors' perceptions of job characteristics and psychological well-being (Han, Yin, Wang & Zhang, 2019).

Investigating work engagement in the context of teaching involves examining the positive experiences of professors, the characteristics of their work (job demands and resources) and the favorable conditions for their well-being and happiness (Guglielmi, Bruni, Simbula, Fraccaroli & Depolo, 2016).

With regard to job characteristics, the literature indicates that the increasing stress among higher education teachers is associated with escalating teaching, research, and administrative demands (Vardi, 2009). Work demands, in turn, are linked to pressure to adopt new teaching practices and technologies, an increase in student numbers, and shifts in teaching and learning approaches (Coaldrake, 1999). In a study of Chinese university professors, results suggested that work demands consisted of the need to balance teaching and research as well as new challenges that reduced job satisfaction. Work resources, encompassing pedagogical resources, social support, and administrative support, increased job satisfaction and work engagement (Han et al., 2019). Findings from another study involving Dutch professors demonstrated that work resources were crucial, particularly when dealing with difficult students in the classroom (Bakker & Schaufeli, 2000). In this study, professors faced with high work demands, i.e., difficult students, maintained motivation, engagement, and emotional attachment to their activities when they received psychosocial support from their supervisors, felt appreciated for their work, and experienced a positive work climate. In Brazil, qualitative demands and work resources (task execution) are most significant in the working lives of higher education teachers. Furthermore, teachers in private institutions perceive work demands and resources more favorably than those in public institutions (Mercali & Costa, 2019).

It should also be noted that work engagement is a construct that has an interface with happiness at work (Field & Buitendach, 2011). Linked to this happiness, as a broader psychosocial phenomenon, stability and permanence are features (Silva, Tolfo,

López & Cedenõ, 2015) involving positive emotions and experiences of pleasure and purpose (Budde & Silva, 2020). Following this idea, happiness at work is also a construct investigated in Higher Education (Ribeiro & Silva, 2020).

Furthermore, while researching university teaching, we must not lose sight of the importance of also studying the changes that occur throughout a teacher's career. Professors have different needs and experiences at different points of their careers. In other words, they go through different stages, each with its own characteristics, which link their professional trajectory to their educational experiences over the years (Huberman, 2013; Guglielmi et al., 2016). Based on this premise and research into teacher development, Huberman (2013) proposed the Professional Life Cycle of Teachers model, highlighting the critical moments that guide them to different decisions and which entails five phases: Entry into the career (1 to 3 years in the profession), related to the time of survival and discoveries in teaching; Stabilization (4 to 6 years), the phase of professional identification; Diversification (from 7 to 25 years), which refers to the phase of experimentation and questioning; Serenity or Conservatism (25 to 35 years), understood as a place of serenity and regret; and finally, Disengagement (35 to 40 years of work) that marks the end of the professional career. It is important to consider that the stages set out in Huberman's model (2013) are not universal and can be experienced by people in different ways (Marchesi, 2008). This is provided for in the theoretical models formulated by other important authors in the field which aim to cover the changes that occur over the course of a professional career by means of periods or phases.

In turn, work engagement is characterized as a complex process that is relatively stable over time. It is also dynamic and may undergo variations due to labor conditions that permeate the workers' careers (Magnan et al., 2016; Vazquez et al., 2015).

In this way, understanding the relationships between work engagement and other variables that affect it is fundamental to better understanding the

results found in its evaluation (Magnan et al., 2016; Vazquez et al., 2015). Therefore, the main focus of this research is to analyze the work engagement of faculty members in a Brazilian federal public university and its relationship with their teaching careers. In addition, we analyzed the relationship between work engagement and its dimensions as well as sociodemographic variables.

Method

Participants

To achieve the proposed objective, the study was carried out through a cross-sectional survey. Two hundred and twenty male and female professors from a Brazilian federal public university took part. In the group, 50.9% were male, with an average age of 48.5 years ($SD=10.8$).

The criterion for inclusion in the sample was professors working in the regime of exclusive dedication to higher education. The sample was predominantly comprised of married people (81.6%), with children (67.5%), and a close relative who also worked as a professor at different levels of education (67.9%). Regarding the level of education, 57.1% had a post-doctorate degree, and 40.6% had a doctorate. Moreover, 90.1% worked in graduate programs. Regarding the phases of the Professional Teaching Career Cycle, which indicate the teaching time in the educational institution where the research participants worked, the results were diverse. Among the participants, 16% were in the Entry phase, 16.5% in the Stabilization phase, 42.9% in the Diversification phase, 13.7% in the Serenity or Conservatism phase, and 10.8% in the Disengagement phase. To calculate the sample size, it was determined that the ratio between the number of cases and the number of variables should be equal to or greater than five. This is to ensure more robust results (Hair, Tatham, Anderson & Black, 2005).

The professors from the chosen sample work in a public federal university located in the south of Brazil. Founded about 61 years ago, this university has 120 undergraduate courses distributed among

different areas of knowledge. The institution offers *stricto sensu* graduate courses in addition to other educational modalities. As the university is a public and free education institution, it is governed by a set of laws. Among other aspects, these laws define the admission of faculty members exclusively through public examinations and titles.

Instruments

This research used a sociodemographic questionnaire and the Brazilian version of the Utrecht Work Engagement Scale (UWES), validated by Vazquez et al. (2015). Through the sociodemographic questionnaire, information on the personal and professional characteristics of the participants was collected. The Brazilian version of UWES, originally developed by Schaufeli and Bakker (2004), has 17 items that allow us to assess the dimensions of vigor, dedication, and absorption. Due to the psychometric quality of the instrument, many international studies have used adapted and validated versions of the UWES for several countries. The validation of UWES, the version used in Brazil, showed good evidence of content and construct validity for employment in the country. This evidence included the internal consistency of 0.95 for the general work engagement factor; 0.86 for vigor; 0.87 for dedication, and 0.85 for concentration (Magnan et al., 2016).

All items are positive and measured using the seven-point importance scale, ranging from “0–Never” to “6–Always”, according to how the respondents feel at work. The overall raw score is obtained from the sum of the answers given, divided by the total number of items. The presence of work engagement implies high scores in all three dimensions.

To obtain the raw score for each dimension alone, one must add up the answers for each item relating to the dimension and divide them by the total number of items. Six items measure vigor (1, 4, 8, 12, 15, and 17), five measure dedication (2, 5, 7, 10, 13), and another six items measure absorption (3, 6, 9, 11, 14, and 16).

Data collection

For data collection, carried out between March and July 2021, emails were sent to professors briefly presenting the research and inviting them to access the online questionnaire on the SurveyMonkey platform. When participants first accessed the platform, they were asked to read the free and informed consent form. After agreeing to participate in the research on their own free will, they gained access to the research instrument. The average answer time was 10 minutes.

Data analysis

The first data analysis undertaken referred to a descriptive statistical analysis. This analysis was carried out to measure the general level of work engagement of the participants and the score per dimension: vigor, dedication, and absorption. The Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (S-K) tests were used to treat the data. The purpose was to verify the normality of the distribution of each variable analyzed, determining the types of statistical tests to be used.

To verify the existing correlations between the three dimensions of work engagement (vigor, dedication, and absorption) and age, Spearman's correlation was applied. In addition, Fischer's *r*-to-*z* transformation was used to search for significant differences in the correlations between the variables. The choice of using non-parametric correlation was determined considering that the variables of age and the three dimensions of work engagement did not show normal data distribution. These dimensions include vigor, dedication, and absorption ($p > 0.05$). Student's *t*-tests were also conducted to compare the UWES scores, according to gender. The comparison was performed regardless of whether they had children or not, level of education, and whether someone else in the family was teaching.

In the validity study of the Brazilian version of UWES, significant correlations were found between work engagement and the working age group. Therefore, the interpretation norms were drawn up according to age groups and career

stage. These groups and stage encompass the beginning of working life (18 to 28 years); professional development/training (29 to 39 years) and career consolidation (above 40 years) (Vazquez et al., 2015).

Student t-tests were also conducted to compare the scores of the three dimensions of work engagement, according to two work age groups (29 to 39 years, which corresponded to 30% of the sample, and 40 years and older, which corresponded to 69.5% of the survey sample). The number of respondents in the first age group (18 to 28 years) accounted for only 0.5% of the study sample and, as such, made it impossible to apply the test. Finally, a Multivariate Analysis of Variance (MANOVA) was used to investigate to what extent levels of work engagement varied for people who were at different stages of the professional life cycle of teachers (Huberman, 2013).

For all group comparison analyses, resampling procedures were implemented (bootstrapping; 1,000 resamples, 99% confidence interval) (Haukoos & Lewis, 2005). Cohen's d (Cohen, 1988) was used for pairwise comparisons using the following interpretative norms: no effect (between 0.00 and 0.10); weak effect (between 0.11 and 0.29); moderate effect (between 0.30 and 0.49), and strong effect (> 0.50). Data were analyzed using the statistical package SPSS (Statistical Package for the Social Sciences) version 23.

Ethical considerations

The research protocol was approved by the Brazilian National Commission in Research Ethics (CONEP). The authors are assured that the instruments used do not pose psychological or moral risks to the respondents. Prior to their actual collaboration, and in accordance with the ethical standards of research involving human subjects, the authors informed the teachers of their participation in the research on work engagement and the intention to publish the results.

Participants were assured that their answers would be anonymous and that the research data would be kept in a secure and confidential database.

The respondents' explicit consent was obtained before giving them the actual instrument. No incentives of any kind were given in exchange for participation. The authors stated that there were no conflicts of interest.

Results

Initially, analysis was conducted using descriptive statistics to verify the degree of work engagement of the professors who comprised the sample. In general, the results suggest a moderate level of work engagement by the participants ($M = 4.90$), with strong convergence among the respondents ($SD = 0.75$). Table 1 presents the mean and standard deviation relative to the overall level of work engagement of the research participants and according to the dimensions of vigor, dedication, and absorption.

Table 1
Mean and standard deviation related to the overall level of work engagement of Higher Education faculty members and according to the dimensions of vigor, dedication, and absorption

Variable	Mean	Standard Deviation
General	4.90	0.75
Vigor	4.75	0.89
Dedication	5.02	0.91
Absorption	4.95	0.78

The results of Spearman's correlation analysis showed that variable age has a significant, positive, and moderate correlation with the three dimensions of work engagement, as shown in Table 2. Fischer's r-to-z transform test showed that age was associated more strongly with dedication ($\rho = 0.397$, $p < 0.001$, $\rho^2 = 0.158$) rather than with vigor ($\rho = 0.314$, $p < 0.001$, $\rho^2 = 0.098$) ($z = -1.88$; $p = 0.03$). However, the comparison between the correlation coefficients of dedication and absorption ($\rho = 0.306$, $p < 0.001$, $\rho^2 = 0.094$) showed a non-significant Fischer transform r-to-z coefficient ($z = 1.52$; $p = 0.06$).

The r-to-z Fischer transformation test carried out between the correlation coefficients of vigor and absorption showed non-significant results ($z = 0.14$; $p = 0.44$).

Table 2*Correlation analysis between the three dimensions of work engagement and age*

	Vigor	Dedication	Absorption
Age	$\rho = 0.314$ $p < 0.001$ $\rho^2 = 0.098$	$\rho = 0.397$ $p < 0.001$ $\rho^2 = 0.158$	$\rho = 0.306$ $p < 0.001$ $\rho^2 = 0.094$

Note: ρ = Spearman's rho; p = statistical significance.

Table 3 presents the results of the Student's *t*-test analysis between the UWES scores. The analysis was performed according to gender, whether or not they had children and their level of education. Another aspect taken into account was whether or not someone else in the family was in the teaching profession.

All comparisons met the prerequisite of homogeneity of variances. The results indicated significant differences in levels of work engagement

by gender. It was evidenced that men ($M = 85.07$; $SD = 11.92$) had higher levels of work engagement than women ($M = 81.52$; $SD = 13.58$) ($t(209) = -2.106$; $p = 0.045$) with a small effect size ($d = 0.29$) (Cohen, 1988). As can be seen in Table 3, no significant differences were found between levels of work engagement for people with or without children, level of education or whether someone else in the family was in the teaching profession.

Table 3*Student's t-tests for differences in work engagement scores by gender, children, education level, and whether someone else in the family is in the teaching profession*

Variable	Group	Mean (DP)	ΔM [99% IC]	T	P	D
Work Engagement	Gender: Male	85.07 (11.92)	-3.54 (-7.23 – -0.24)	-2.016	0.045	0.29
	Female	81.52 (13.58)				
	Children: Has	84.13 (12.46)	2.50 (-1.39 – 6.08)	1.322	0.188	0.20
	None	81.63 (13.60)				
	Education: PhD	81.67 (13.48)	-2.85 (-6.15 – 0.66)	-1.558	0.121	0.22
	Postdoc	84.52 (12.55)				
Teaching relative:	Yes	83.11 (13.14)	-0.67 (-4.51 – 3.17)	-0.357	0.350	0.05
	No	83.79 (12.33)				

Note: SD = standard deviation; ΔM = Mean difference between groups; p = Statistical significance; d = Cohen's *d* value.

Table 4 presents the results of the Student's *t*-test analysis to compare the vigor, dedication, and absorption scores. The analysis was performed according to the working age groups and the gender of the participants.

All comparisons met the prerequisite of homogeneity of variances. The results showed significant differences in vigor levels, according to gender and age group. It was evident that men ($M = 28.59$; $SD = 4.93$) and persons aged 40 years

or older ($M = 29.14$; $SD = 5.21$) had higher levels of vigor than women ($M = 27.42$; $SD = 5.50$) ($t(211) = -3.016$; $p = 0.003$) and people aged 29 to 39 years ($M = 26.33$; $SD = 5.22$) ($t(200) = -3.466$; $p < 0.001$) with small ($d = 0.23$) and moderate ($d = 0.48$) effect sizes, respectively. Significant differences were also found in dedication scores, according to age group. People aged 40 years or older ($M = 25.71$; $SD = 4.53$) had higher levels of dedication than people aged 29 to 39 years ($M = 23.15$; $SD =$

4.14) ($t(200) = -3.738$; $p < 0.000$) with a strong effect size ($d = 0.58$). Significant differences were also found in levels of absorption according to age group. Persons aged 40 years and older ($M = 30.32$; $SD = 4.61$) had higher levels of absorption

than people aged 29 to 39 years ($M = 27.90$; $SD = 4.66$) ($t(200) = -3.377$; $p < 0.001$) with a strong effect size ($d = 0.53$). No significant differences were evident between the dedication and absorption scores, according to gender.

Table 4

Student's t-tests for differences in vigor, dedication, and absorption scores, according to two occupational age groups and the gender of the participants

Dimension	Group	Mean (DP)	ΔM [99% IC]	T	P	D
Vigor	Gender: Male	27.42 (5.50)	-2.16 (-3.60 – -0.70)	-3.016	0.003	0.23
	Female	28.59 (4.93)				
	Age range: 29 to 39 years old	26.33 (5.22)	-2.80 (-4.30 – -1.30)	-3.466	0.001	0.48
	40 years or older	29.14 (5.21)				
Dedication	Gender: Male	26.68 (4.84)	-0.80 (-1.97 – 0.52)	-1.285	0.200	0.26
	Female	25.49 (4.22)				
	Age range: 29 to 39 years old	23.15 (4.14)	-2.56 (-3.88 – -1.25)	-3.738	0.000	0.58
	40 years or older	25.71 (4.53)				
Absorption	Gender: Male	29.42 (4.94)	-0.58 (-1.90 – 0.83)	-0.893	0.373	0.12
	Female	30.00 (4.44)				
	Age range: 29 to 39 years old	27.90 (4.66)	-2.42 (-3.79 – -1.06)	-3.377	0.001	0.53
	40 years or older	30.32 (4.61)				

Note: SD = standard deviation; ΔM = Mean difference between groups; p = Statistical significance; d = Cohen's d value.

Finally, the MANOVA sought to investigate the extent to which levels of work engagement varied for people who were in different phases of the Professional Teaching Career Cycle. The results revealed that there are statistically significant differences. Hochberg's Post-hoc tests showed that people who were in the Stabilization ($M = 77.25$; $SD = 13.75$) phase had lower work engagement scores than people who were in the Serenity or Conservatism ($M = 90.41$; $SD = 7.79$, $p = 0.002$) and Disengagement ($M = 89.81$; $SD = 12.72$, $p = 0.009$) phases.

Discussion

Given that work engagement is a construct that may vary according to working conditions,

it is important to consider the elements that characterize the sample. Among those characteristics, it is worth highlighting the fact that it is a group of young and middle-aged adult professors, with extensive professional experience (primarily between 7 and 25 years). The data indicate an accumulation of knowledge and experience in the activity of teaching.

Participants in this study work in a public educational institution, which differs from the context of private institutions (Rowe & Bastos, 2010). Brazilian public educational institutions offer stability and ongoing opportunities for professional development to teachers, which is not the case in private institutions, for instance. However, some

Brazilian public universities face infrastructure problems related to classrooms, libraries, and laboratories, as well as shortages of teachers and technical administrative professionals (Sakurada, 2017). Nevertheless, despite the differences between types of institutions, research reveals that whether an institution is public or private does not impact the professors' connection to their careers (Mercali & Costa, 2019; Rowe & Bastos, 2010).

In this context, since the professors in the sample obtained an average overall work engagement score (Schaufeli & Bakker, 2004) with a slightly higher score for Dedication, these results are in line with similar evidence found in studies involving Higher Education professors in Brazil and Portugal (Araújo & Esteves, 2016; Caldas, Somensari, Costa, Siqueira & Claro, 2013; Dessbesell, Fabricio, Rotili, Grzybovski & Carneiro, 2017; Mercali & Costa, 2019; Paiva, Silva, Silva & Ferraz, 2017). According to Schaufeli, Dijkstra & Vazquez (2013), challenging jobs that confer greater autonomy and freedom of decision-making tend to provide higher levels of engagement. This particularly applies to jobs that entail assignments connected to social responsibility and which impact people more directly, as those related to health and education.

More prominent levels in the Dedication dimension were also found in the study performed by Mercali and Costa (2019). The sample shown was composed of 506 professors from different federative units of Brazil, and 56.9% were affiliated with federal institutions.

High levels in this dimension may indicate a high level of faculty member connection to their work, enthusiasm for their tasks and commitment to building their careers. All the abovementioned aspects lead professors to care about what happens in their daily routines, attributing positive meaning to teaching, researching, and extension activities. This, in turn, results in professors feeling proud of what they do (Schaufeli, Dijkstra & Vazquez, 2013).

The results of this study indicated that men showed higher levels of work engagement than

women. However, no significant differences were found between the specific scores of Dedication and Absorption, but there were differences in relation to the Vigor dimension, that is, according to the results from the sample, the men investigated showed higher levels of Vigor than women. These results differ from other earlier studies involving professors that showed that gender does not statistically influence professors' work engagement (Araújo & Esteves, 2016; Magnan et al., 2016; Silva-Júnior, Ferreira & Valentini, 2020). However, it should be noted that the results of this investigation do not allow us to counter Schaufeli, Dijkstra, and Vazquez's (2013) assertion that men and women are almost equally engaged, since the magnitude of the difference in the overall level of engagement and the Vigor dimension between men and women was low. This indicates that said results may not have practical significance. The findings of the tests conducted to verify the correlations between Work Engagement and the variables of age, working age group, and phase of the teacher's professional career cycle indicated that the results converged.

The significant, positive, and moderate correlation found between age and the three dimensions of work engagement, as well as the differences related to working age groups, corroborate what Schaufeli, Dijkstra and Vazquez (2013) state, as do the results found by Guglielmi et al. (2016). They show that engagement differs in relation to age group and also career time, even though international studies indicate ambiguity regarding the role of age in work engagement (Magnan et al., 2016).

The results of this study revealed that people in the career consolidation phase (aged 40 years or older) showed higher levels of vigor, dedication, and absorption than professors in the professional development phase (between 29 and 39 years). As such, results ratify the findings described in the research of Araújo and Esteves (2016) and Magnan, et al. (2016), contrasting with the findings of Guglielmi et al. (2016) and Mercali and Costa (2019).

In Guglielmi et al.'s study (2016), for example, younger professors were found to be more engaged than their older colleagues. On the other hand, in Mercali and Costa's (2019) study, professors belonging to the professional development group showed more balanced results among the vigor, dedication, and absorption dimensions.

Nevertheless, it is important to state that, despite having higher mean scores for the dimensions, the professors investigated in this research are at lower percentiles when compared to the group in the professional development phase (19 to 39 years old). At issue here are those who were in the career consolidation phase, according to the normative studies of Vazquez et al. (2016).

The differences found confirm the importance of investigating the topic in the context of education because specific job characteristics can impact workers differently, especially when professional qualifications tend to be developed as the career is being built (Guglielmi et al., 2016).

Therefore, it is possible to infer that throughout the career of more experienced professors, other variables in the teachers' work context that were not the focus of analysis in this study, as work resources, autonomy, mastery of administrative and pedagogical processes, opportunities for personal and professional career growth, among others, could have been further developed. This would contribute to raising the levels of work engagement of the professionals who comprise this study sample (Hakanen, Bakker & Schaufeli, 2006).

This also explains why teachers in the Stabilization phase (4 to 6 years of activity) have lower levels of work engagement than teachers in the Serenity or Conservatism (25 to 35 years of teaching), and Disengagement (more than 36 years of teaching) phases, which are the final phases of Huberman's (2013) Professional Life Cycle of Teachers.

The Stabilization phase is characterized not only by the strengthening of professional identity, but also the feeling of greater job security, based on a personal commitment to the teaching activity.

However, it is in the subsequent phases, Serenity or Conservatism and Disengagement, that the professor acts with greater tranquility (Huberman, 2013; Marchesi, 2008). According to the authors, in the phase of Serenity or Conservatism, teachers feel that they have mastered their activities (although they may go through a period of critical evaluation in which they look back at their past and see more positive aspects than in their current situation). And the last phase of the cycle, called Disengagement, can translate into a progressive detachment from the events taking place in the educational institution, according to Huberman (2013). This phase turns to the professors' interests and their own inner self, in a positive way. However, it is likely that the experience consolidated over the years contributes to higher levels of work engagement (Mesurado & Laudadio, 2019). The same applies to the possibility of greater dedication to activities with which professors identify themselves, even if, paradoxically, this phase is characterized by Huberman (2013) as one of disengagement.

Likewise, it is also considered that work engagement differs in relation to the length of time spent in work activities. Generally, people develop a more structured idea of what they want to do and feel more able to adapt their work activities to suit these desires as they mature. When they are young, they tend to accept working in activities that require more effort or they enjoy less in order to gain professional experience and learning (Schaufeli, Dijkstra & Vazquez, 2013).

Finally, some difficulties possibly encountered in the first years of teaching work can be viewed positively by teachers. Some examples of these difficulties include facing new situations in daily life, the need to carry out multiple tasks, and establishing bonds with superiors and peers. These difficulties include appropriating and adapting work methodology to different student profiles, among other concerns. These adversities have the potential to drive desires for continuous development and generate engagement. On the other hand, they can also make teachers more inclined to burnout and

exhaustion (Guglielmi et al., 2016). Therefore, the obstacles mentioned could justify the lower levels of work engagement among teachers with shorter careers found in this study.

Among the limitations of this study is the fact that it was conducted with participants from a single Brazilian federal public university. Notwithstanding the advantages of considering constant organizational variables in the analysis of the investigated phenomenon, this design does not reflect the reality of other educational institutions. The structure and characteristics of these educational institutions inherent to the management model practiced are particularized and influenced by political, economic, cultural, and ethical aspects that can have an impact on work engagement.

Given the importance and specificity of the work of higher education professors, analyzing their work engagement based on sociodemographic and career variables is especially relevant. Engaged professors tend to feel good at work, happier and more fulfilled. Moreover, their performance improves and they become capable of improving their students' performance and their preparation for the future.

The results of this study, along with the literature presented, mainly show that teachers at more advanced stages of their careers have higher levels of work engagement. As such, among the opportunities and proposals for future studies, we suggest the use of descriptive and qualitative methodologies to understand the possible drivers of work engagement for public Higher Education professors in Brazil.

As work engagement is a phenomenon that may fluctuate over time and situations, the theoretical model called Job Demands-Resources Model (JD-R model) is a relevant aid for further studies on the subject. This model is structured from studies in occupational health and positive psychology. It seeks to explain how demands and resources (personal and organizational) at work have a multiplying effect on energy drain and the motivational process (Bakker & Demerouti, 2017).

The contributions of this study, in theoretical terms, are aimed at a greater understanding of

work engagement and the expansion of knowledge related to teacher well-being in different work situations. In conclusion, work engagement, a construct considered recent in psychological literature, contributes to the creation of more meaningful trajectories.

In practical terms, its results can help structure interventions aimed at people management practices in the public sector, focusing on the health, quality of life, well-being, and happiness of workers. These features allow them to achieve greater fulfillment throughout their career trajectories in Higher Education. Furthermore, as a predictor of individual and organizational performance, investment in actions that increase work engagement would enable greater effectiveness in public service. The outcome would positively impact results and generate value for society as a whole (Camões & Oliveira-Gomes, 2021).

References

- Araújo, I. & Esteves, R. (2016). Engagement em docentes do ensino superior: uma abordagem exploratória. *Enfermería Universitaria*, 13 (2), 73-79. <https://doi.org/10.1016/j.reu.2016.03.006>
- Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The Meaning, Antecedents and Outcomes of Employee Engagement: A Narrative Synthesis. *International Journal of Management Reviews*, 19(1), 31-53. <https://doi.org/10.1111/ijmr.12077>
- Bakker, A. (2011). An Evidence-Based Model of Work Engagement. *Current Directions in Psychological Science*, 20, 265-269. <https://doi.org/10.1177/0963721411414534>
- Bakker, A. B., & Bal, P. M. (2010). Weekly Work Engagement and Performance: A Study Among Starting Teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189-206. <https://doi.org/10.1348/096317909X402596>
- Bakker, A. B., & Demerouti, E. (2017). Job Demands-Resources Theory: Taking Stock and Looking Forward. *Journal of Occupational Health Psychology*, 22(3), 273-285. <https://doi.org/10.1037/ocp0000056>
- Bakker A. B., & Schaufeli W. B. (2000). Burnout Contagion Processes Among Teachers 1. *Journal of Applied*

- Social Psychology*, 30(11), 2289–2308. <https://doi.org/10.1111/j.1559-1816.2000.tb02437.x>
- Bakker, A., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work Engagement: An Emerging Concept in Occupational Health Psychology. *Work and Stress*, 22, 187–200. <https://doi.org/10.1080/02678370802393649>
- Budde, C., & Silva, N. (2020). Impactos na percepção de felicidade no trabalho após um processo de redução nas políticas e nas práticas de gestão de pessoas. *Psicología desde el Caribe*, 37(1), 40–69. <https://doi.org/10.14482/psdc.371.305.56>
- Caldas, C. B., Somensari, P., Costa, S. N., Siqueira, M. M., & Claro, J. A. C. S. (2013). Satisfação e engajamento no trabalho: docentes temáticos e auxiliares da EAD de universidade privada brasileira. *Gerais: Revista Interinstitucional de Psicologia*, 6(2), 225–237. http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1983-82202013000200006&lng=pt&tlng=pt
- Camões, M. R. S., & Oliveira Gomes, A. (2021). Engajamento no trabalho: Conceitos, teorias e agenda de pesquisa para o setor público. *Administração Pública e Gestão Social*, 13(3). <https://doi.org/10.21118/apgs.v13i3.10572>
- Coaldrake, P. (1999). The Changing Climate of Australian Higher Education: An International Perspective. *Higher Education Management*, 11(1), 117–134.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Academic Press.
- Dessbesell, V. H., Fabricio, A., Rotili, L., Grzybovski, D., & Carneiro, L. (2017). Engajamento no trabalho em docentes de Instituições de Ensino Superior no Rio Grande do Sul. *XXII Jornada de Pesquisa*, Ijuí. Anais. <https://doi.org/10.6008/cbpc2179-684x.2018.002.0005>
- Field, L. K., & Buitendach, J. H. (2011). Happiness, Work Engagement, and Organizational Commitment of Support Staff at a Tertiary Education Institution in South Africa. *SA Journal of Industrial Psychology*, 37(1), 68–77. <http://dx.doi.org/10.4102/sajip.v37i1.946>
- Fletcher, L., Bailey, C., Alfes, K., & Madden, A. (2020). Mind the Context Gap: A Critical Review of Engagement within the Public Sector and an Agenda for Future Research. *The International Journal of Human Resource Management*, 6–46. <https://doi.org/10.1080/09585192.2019.1674358>
- Geremia, H. C. & Silva, N. (2019). Engajamento no trabalho docente: uma revisão da literatura. In: S. Franco, & E. Escudero. (Org.). *El Presente Del Futuro Del Trabajo II: Psicología y organización del trabajo XVI*. 1ed. Montevideo–Uruguay: Psicolibros Universitario, v. II, p. 115–133. <https://doi.org/10.15581/022.41525>
- Guglielmi, D., Bruni, I., Simbula, S., Fraccaroli, F., & Depolo, M. (2016). What Drives Teacher Engagement: A Study of Different Age Cohorts. *European Journal of Psychology of Education*, 31(3), 323–340. <https://doi.org/10.1007/s10212-015-0263-8>
- Hakanen, J., Bakker, A., & Schaufeli, W. B. (2006). Burnout and Work Engagement Among Teachers. *Journal of School Psychology*, 43, 495–513. <https://doi.org/10.1016/j.jsp.2005.11.001>
- Hair, J. F., Tatham, R. L., Anderson, R. E., & Black, W. (2005). *Análise Multivariada de Dados*. Porto Alegre: Bookman.
- Han, J., Yin, H., Wang, J., & Zhang, J. (2019). Job Demands and Resources as Antecedents of University Teachers' Exhaustion, Engagement and Job Satisfaction. *Educational Psychology*, 1–18. <https://doi.org/10.1080/01443410.2019.1674249>
- Haukoos, J. S., & Lewis, R. J. (2005). Advanced Statistics: Bootstrapping Confidence Intervals for Statistics With “Difficult” Distributions. *Academic emergency medicine*, 12(4), 360–365. <https://doi.org/10.1197/j.aem.2004.11.018>
- Huberman, M. (2013). O ciclo de vida profissional dos professores. In: A. Nóvoa (Org.), *Vidas de professores*. Coleção Ciências da Educação (n. 4, pp. 31–61, 2.ed. Tradução de Maria dos Anjos Caseiro e Manuel Figueiredo Ferreira). Porto, Portugal: Porto Editora.
- Isaia, S. M. de A. (2006). Desafios à docência superior: pressupostos a considerar. In: D. Ristoff, & P. Ristoff (Orgs.). *Docência na educação superior*. Coleção Educação Superior em Debate, 5, 63–84. INEP: Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. <https://doi.org/10.5753/seadco.2020.14669>
- Lorente, L., & Vera, M. (2010). Las organizaciones saludables: “El engagement en el trabajo”. *Gestión Práctica de Riesgos Laborales*, 73, 16–20. <https://doi.org/10.7764/rts.78.37-48>

- Magnan, E. S., Vazquez, A. C. S., Pacico, J. C., & Hutz, C. S. (2016). Normatização da versão Brasileira da Escala *Utrecht* de Engajamento no Trabalho. *Avaliação Psicológica*, 15(2), 133-140. <https://doi.org/10.15689/ap.2016.1502.01>
- Marchesi, A. (2008). *O bem-estar dos professores: competências, emoções e valores*. Porto Alegre: Artmed.
- Mercali, G. D., & Costa, S. G. (2019). Antecedentes do engajamento no trabalho dos docentes de ensino superior no Brasil. *Revista de Administração Mackenzie*, 20(1). <https://doi.org/10.1590/1678-6971/eramg190081>
- Mesurado, B., & Laudadio, J. (2019). Teaching Experience, Psychological Capital and Work Engagement. Their Relationship with Burnout on University Teachers. *Propósitos y Representaciones*, 7(3), 12-40. <http://dx.doi.org/10.20511/pyr2019.v7n3.327>
- Paiva, M., Silva, R., Silva, S., & Ferraz, S. (2017). Engajamento no trabalho e clima para serviços em uma instituição federal de ensino superior. *Práticas em Gestão Pública Universitária*, 1(2), 316-337. <https://doi.org/10.5007/1983-4535.2019v1n2p205>
- Rebolo, F., & Oliveira-Bueno, B. (2014). O bem-estar docente: limites e possibilidades para a felicidade do professor no trabalho. *Acta Scientiarum Education*, 36(2), 323-331. <https://doi.org/10.4025/actascieduc.v36i2.21222>
- Ribeiro, A. D. S., & Silva, N. (2020). Sentido e significado de felicidade no trabalho para professores. *NAVUS: Revista de Gestão e Tecnologia*, 10,1-10. <https://doi.org/10.22279/navus.2020.v10.p01-10.1266>
- Rowe, D. E. O., & Bastos, A. V. B. (2010). Vínculos com a carreira e produção acadêmica: Comparando docentes de IES públicas e privadas. *Revista de Administração Contemporânea*, 14(6), 1011-1030. doi: <https://doi.org/10.1590/S1415-6552010000700003>
- Sakurada, P. K. C. (2017). O sucateamento da universidade pública: A realidade dos cursos de Serviço Social da UFES e UFF. *Universidade e Sociedade*, 59, 70-81.
- Salanova, M., & Schaufeli, W. B. (2009). *El engagement en el trabajo: Cuando el trabajo se convierte en pasión*. Madrid: Alianza Editorial. <https://doi.org/10.5944/rppc.vol.3.num.2.1998.3860>
- Schaufeli, W. B. (2014). What is engagement? In: Truss, C. et al. (eds), *Employee Engagement in Theory and Practice*. London: Routledge, pp. 15-35.
- Schaufeli, W. B., & Bakker, A. B. (2004). Job Demands, Job Resources and Their Relationship with Burnout and Engagement: A Multi-Sample Study. *Journal of Organizational Behavior*, 25, 293-315. <https://doi.org/10.1002/job.248>
- Schaufeli, W. B., Dijkstra, P., & Vazquez, A. C. (2013). *Engajamento no trabalho*. São Paulo: Casa do Psicólogo.
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. (2002). The Measurement of Burnout and Engagement: A Confirmatory Factor Analytic Approach. *Journal of Happiness Studies*, 3, 71-92. <https://doi.org/10.1023/a:1015630930326>
- Silva Júnior, D. I. da, Ferreira, M. C., & Valentini, F. (2020). Propriedades psicométricas da Escala de Engajamento no trabalho de Professores (EEP). *Psicologia: teoria e prática*, 22(1), 109-126. <https://dx.doi.org/10.5935/1980-6906/psicologia.v22n1p109-126>
- Silva, N., Tolfo, S. da R., López, A. S., & Cedenô, A. G. (2015). Psicologia Positiva nas Organizações, no Trabalho e em outros espaços de vida. In: Godoy, L., & Ansoleaga, E. (Compiladoras). *Um Campo em Tensión o Tensión entre campos: psicología de las organizaciones y del trabajo em Iberoamérica*. pp. 389-401. Chile: Ril Editores. <https://doi.org/10.36229/978-65-5866-042-2.cap.07>
- Vardi, I. (2009). The Impacts of Different Types of Workload Allocation Models on Academic Satisfaction and Working Life. *Higher Education*, 57(4), 499-508. <https://doi.org/10.1007/s10734-008-9159-8>
- Vazquez, A. C. S., Magnan, E. S., Pacico, J. C., Hutz, C. S., & Schaufeli, W. B. (2015). Adaptation and Validation of the Brazilian Version of the Utrecht Work Engagement Scale. *Psycho-USF*, 20, 207-217. <https://doi.org/10.1590/1413-827120152002020>