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**Perceived Overqualification and intention to leave:
The mediating role of work-related boredom and the
moderating role of perceived HPWS**

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Dedicated to my family,
who believed in me and
invested in my dreams..

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Abstract

Previous research has highlighted various underlying processes and boundary conditions through which perceived overqualification (POQ) is related to intention to leave. However, limited research has focused on work-related boredom as a mediator in this relationship. Even more, little is known about the effect of perceived high performance work systems (HPWS) in the overqualification literature. The current study attempts to address these gaps by developing and testing a moderated mediation model that encompasses the aforementioned constructs. Data were collected from 188 employees in a Greek manufacturing company. Results demonstrated that work-related boredom mediates the relationship between POQ and intention to leave. Additionally, perceived HPWS attenuate the effects of POQ on intention to leave directly and indirectly via work-related boredom. Finally, theoretical and practical implications of these results as well as directions for future research were discussed.

Keywords: Perceived overqualification; Work-related boredom; Intention to leave; Perceived high performance work systems; Moderated mediation

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1. Introduction

One of the greatest issues that Human Resources Management (HRM) is asked to deal with is employees' current skills, as well as their one that they will to develop in the near future (Grugulis, 2003). The last fifteen years, since the beginning of the economic recession and afterwards, scholars have focused more on the employees who consider themselves overqualified (e.g. Fine & Nevo, 2008; Gkorezis, Erdogan, Xanthopoulou, & Bellou, 2019; Lin, Law, & Zhou, 2017; Lobene, Meade, & Pond III, 2015; Luksyte, Bauer, Debus, Erdogan, & Wu, 2020; Sesen & Ertan, 2019). Overqualification is an employment situation in which an employee possesses more qualifications, such as education, experience, and skills than those required to conduct his/her job tasks successfully (Erdogan & Bauer, 2009; Khan & Morrow, 1991). This feeling derives from the high unemployment levels during economic recession, the lack of job opportunities and the increasing employees' educational levels. This situation has led employees to compromise with a job position, which is not consistent with their qualifications, and therefore the feeling of overqualification was developed (Liu, Luksyte, Zhou, Shi, & Wang, 2015; Quintini, 2011; Simon, Bauer, Erdogan, & Shepherd, 2019).

According to many studies, which have been utilized in different countries around the world, overqualification constitutes a global phenomenon, that appears in the workplace and influences the working life of the employees (Büchel & Mertens, 2004; Erdogan & Bauer, 2009; Gkorezis & Vatou, 2018; Thompson, Shea, Sikora, Perrewé, & Ferris, 2013). Particularly, in the countries where unemployment rates are high, higher rates of overqualification are present (Erdogan, Bauer, Peiró, & Truxillo, 2011). More specifically, the higher rates of unemployment in the EU Member States according to elements retrieved from Eurostat (2021a) are featured by Spain with 14.6%, Greece with 13.3% and Italy with 9.2%. As far as the youth unemployment rates are concerned (under 25s), Greece gets the fourth place with 24.5%, after Spain (30.6%), Italy (29.8%), and Sweden (25.1%). As for the overqualification, Greece got the first place in 2019, documenting the highest rate of non-EU nationals (78%), followed by Italy with 68% and Spain with 62%. For overqualified employed national citizens of all EU Member States, Greece was ranked in the second place with 32%, by Spain being first (35%) and Cyprus following with 31% (Eurostat, 2021b). Yet, the country which had the highest overqualification rate of tertiary graduates for 2019 (age group 25-34)

from the EU Member States was Greece with 48% (Skills Panorama, 2019). As a consequence, the overqualification is totally worth studying in a country like Greece.

Numerous studies have shown that employees who characterize themselves as overqualified (Perceived Overqualification – POQ) may develop negative outcomes such as intention to leave (e.g. Kraimer, Shaffer, & Bolino, 2009; Maynard, Joseph, & Maynard, 2006; Maynard & Parfyonova, 2013). Some empirical research has proposed mediators in the relationship between the POQ and intention to leave such as job satisfaction, organizational commitment, perceived organizational support, positive affect (initial status and change) and autonomy (initial status and change) (Harari, Manapragada, & Viswesvaran, 2017; Simon et al., 2019; Ye, Li, & Tan, 2017). However, so far scholars have focused more on the positive underlying mechanisms rather than the negative ones to explain this relationship. For this reason, except for low positive variables such as low job satisfaction, a negative variable such as work-related boredom could be also studied. As a result, this study intends to endorse this relationship in the POQ literature by highlighting work-related boredom as a mediator. This variable was selected due to the theoretical arguments which support that the overqualified employees feel bored when they carry out their job duties (Erdogan et al., 2011; Liu & Wang, 2012) and the previous studies which used the mediating role of work-related boredom with independent variable the POQ (Andel, Pindek, & Arvan, 2021; Gkorezis & Vatou, 2018; Kim, Park, Sohn, & Lim, 2021). Thus, it is suggested that POQ will be positively related to work-related boredom and, in turn, intention to leave.

Regarding the moderators that have been used in the relationship between the POQ and intention to leave or voluntary turnover, these include psychological empowerment, career calling, proactive personality and manager job insecurity (Erdogan & Bauer, 2009; Erdogan, Karakitapoğlu-Aygün, Caughlin, Bauer, & Gumusluoglu, 2020; Lobene & Meade, 2013; Simon et al., 2019). However, only a few studies have focused on managerial-oriented moderators to explain the effect of POQ on employee outcomes (e.g. autonomy and job crafting) (Debus, Gross, & Kleinmann, 2020; Wu, Luksyte, & Parker, 2015; Wu, Tian, Luksyte, & Spitzmueller, 2017). As such, the present study takes into consideration the important gap in the POQ literature that it is not yet known or studied in general, how the HRM practices moderate the nature of the association between POQ and outcomes (Erdogan & Bauer, 2021).

Building upon Relative Deprivation Theory (RDT), Social Exchange Theory (SET) and Job Characteristics Theory (JCT) as theoretical frameworks, it is proposed that perceived High

Performance Work System (HPWS) will moderate the relationship of POQ with intention to leave (direct effect), POQ with work-related boredom and then intention to leave (indirect effect). Combined together, the present study postulates and tests a moderated mediation model which investigates the relationship between POQ and intention to leave. Figure 1 depicts the hypothesized model.

In sum, this study contributes to the literature in three specific ways. Firstly, a significant psychological mechanism, work-related boredom, is examined through which employees' perceptions of overqualification lead to intention to leave. Secondly, to date the HRM practices have not been studied as a system that may mitigate or exacerbate the effects of POQ. Therefore, this study responds to the recent call for explicating the moderating effect of HRM practices on the association between overqualification and outcomes (Erdogan & Bauer, 2021) and provides new insights in this neglected area of research. Thirdly, the most empirical surveys on POQ have been conducted in the Western world (e.g. Maynard & Parfyonova, 2013; Vaisey, 2006; Wald, 2005). Nonetheless, a country like Greece with high rates of unemployment (Eurostat, 2021a) and overqualification (Eurostat, 2021b) constitutes the ideal sample for the present study, as it can offer useful information for the basic variable of the model.

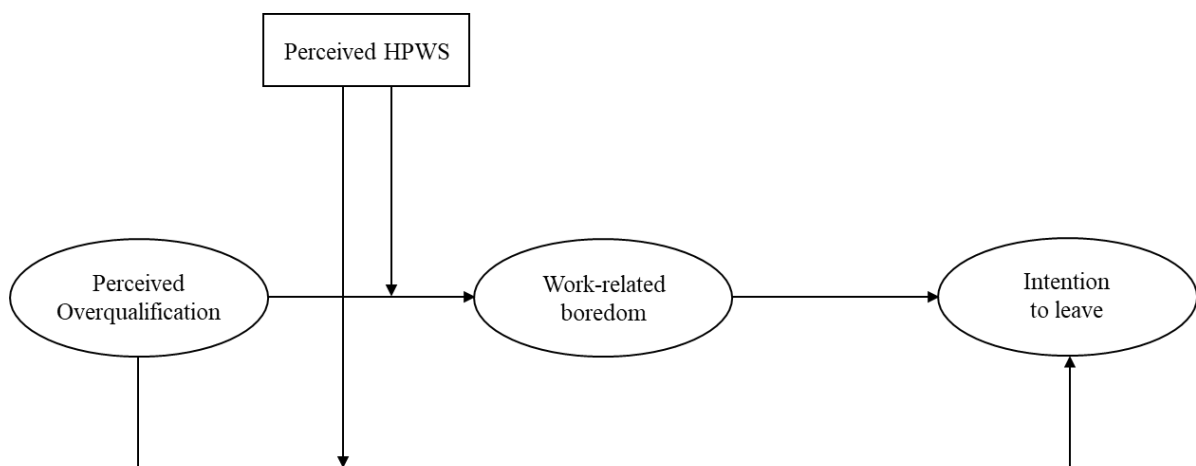


Figure 1. Hypothesized model.

2. Literature review

2.1. *Objective and Subjective overqualification*

Johnson, Morrow, and Johnson (2002) characterize the state of an employee who possesses “surplus education, experience, or skills relative to what a job requires” as “skill underutilization, underemployment, lack of opportunity for growth and change, or overqualification” (p. 426). The latter is a subset of underemployment, as according to Feldman (1996) the first and the third dimension of underemployment (2 out of 5 in total) refer to further education, higher level skills and longer working experience than those the job position demands. All the above are widely known as overqualification (Erdogan & Bauer, 2009; Khan & Morrow, 1991). Therefore, the present study focuses on this term (e.g. Andel et al., 2021; Ma, Ganegoda, Chen, Jiang, & Dong, 2020; Zhang, Ma, Guo, & Li, 2021).

There are two approaches to measuring overqualification; objective such as overeducation (e.g. Büchel & Mertens, 2004; Verhaest & Omeij, 2006) and subjective measures, commonly met as POQ in the literature (e.g. Erdogan, Tomás, Valls, & Gracia, 2018; Maynard & Parfyonova, 2013). The first method refers to “non-perceptual measures of job requirements and employee qualifications” and the second one to the beliefs of employees that “their skills, education, and experience are neither required by nor utilized on the job” (Erdogan & Bauer, 2021, p. 261). For instance, in objective overqualification the educational level, that the job positions demand, is compared to the educational level the employees possess (Arvan, Pindek, Andel, & Spector, 2019). In contrast, subjective overqualification emerges when an employee thinks he/she has higher educational level than that demanded by his/her job position (Maynard et al., 2006). It is worth mentioning that how overqualification is measured is particularly important for a research, as many different results may come up (Erdogan et al., 2011). Specifically, Maltarich, Reilly, and Nyberg (2011) note that for the prediction of the turnover, the objective measures notify managers who is able to leave, while the subjective measures which employee is expected to want to leave the organization. Nevertheless, Erdogan et al. (2011) argue that through the perceptual measures, maybe the most accurate prediction, about the employees’ attitudes and behaviors is achieved. Therefore, this study is based on POQ.

2.2. *Theoretical frameworks of overqualification*

2.2.1. *Relative deprivation (RDT)*

The most common referenced theoretical framework on which the biggest part of POQ literature is based, regards the RDT (e.g. Alfes, Shantz, & van Baalen, 2016; Erdogan et al., 2018; Maynard, Brondolo, Connelly, & Sauer, 2015). In accordance with this theory, POQ “is associated with an unfair violation of expectations regarding opportunity to perform” (Liu & Wang 2012, p. 4). In essence, the employees compare the real working conditions they face with those they desire and think they deserve based on their qualifications (Erdogan & Bauer, 2009; Feldman & Turnley, 2004). Thus, if the employees realize that their current job does not meet their expectations, then this situation leads to poor job attitudes such as low job satisfaction and low organizational commitment (Feldman, Leana, & Bolino, 2002). In other words, employees feel deprived of the job that they actually deserve (Erdogan et al., 2011). Two of the most important emotional consequences caused due to this deprivation are anger and resentment (Smith & Pettigrew, 2015). Moreover, many scholars have employed the specific theory in order to justify the reasons why an overqualified employee intends to leave his/her job (Erdogan & Bauer, 2009; Harari et al., 2017; Kraimer et al., 2009; Ye et al., 2017).

2.2.2. *Person-Job (P-J) fit*

P-J fit, which is a dimension of person-environment fit theory (Kristof, 1996), is frequently met in the POQ literature to explain the implications of overqualified employees existing in the workplace (e.g. Kristof-Brown, Zimmerman, & Johnson, 2005; Luksyte, Spitzmueller, & Maynard, 2011; Maynard et al., 2006; McKee-Ryan & Harvey, 2011). According to Cable and DeRue (2002) P-J fit includes two conceptualizations: the demands-abilities fit (i.e. alignment between job demands and employee’s qualifications) and the need-supplies fit (i.e. the satisfaction degree of employees’ desires by the qualities of the job). Therefore, when there is a good fit between the characteristics of the employee and the characteristics of his/her job position, then positive outcomes occur, not only for the employee himself/herself, but also for the organization (Kristof-Brown et al., 2005). Nevertheless, overqualification is characterized by mismatch between employee abilities and job demands,

which can lead to negative job attitudes and withdrawal behaviors (Maynard et al., 2006; Maynard & Parfyonova, 2013) and by mismatch between employee needs and job supplies (Erdogan & Bauer, 2011).

2.2.3. Organizational justice theory and Equity theory

The effects of POQ on employee attitudes and behaviors can be explained by organizational justice theory as well (e.g. Harari et al., 2017). According to Colquitt, Conlon, Wesson, Porter, and Ng (2001) there are three types of organizational justice: distributive justice (i.e. the perceived fairness of outcomes), procedural justice (i.e. the perceived fairness of the processes whereby outcomes are determined), and interactional justice (i.e. the interpersonal treatment received during the implementation of the procedure together with the perceived adequacy and timeliness of information given). As regards the POQ, it can be considered as distributive injustice (Harari et al., 2017), as employees can advocate that they acquire plenty of knowledge and experience, however they are not given the opportunity to apply them in their current job position. In essence, they feel unappreciated as the organization chose to offer them a mismatching position (Liu & Wang, 2012). Consequently, this distributive injustice can be cognizable through the equity theory (Greenberg, 1990). This theory supports that an employee assesses and compares everything he/she offers to his/her job (e.g. skills, effort) with everything he/she receives from it (e.g. pay, promotion) in comparison with other coworkers (Adams, 1965). As such, if the employee concludes that he/she is disadvantaged by the organization, then according to the aforementioned theory, it is likely he/she will react negatively (e.g. poor performance, leave the job).

2.2.4. Psychological contract theory

Psychological contract theory is defined as “an individual's belief in mutual obligations between that person and another party such as an employer (either a firm or another person)” (Rousseau & Tijoriwala, 1998, p. 679). A main characteristic of it is the individual's belief that there is reciprocation in an agreement between the parties to a particular course of action (Rousseau, 2001). When the employee is aware that the psychological contract is honored, then the perception that he/she is overqualified is reduced. Therefore, in turn, positive employee outcomes occur (Lee, 2005). On the other hand, in accordance with Rousseau

(1989), Robinson and Rousseau (1994) when an employee realizes that the organization has failed to fulfill its promises and obligations then a psychological contract breach occurs. Therefore when this happens, the employees see that their expectations are not met and therefore it is negatively related to employees' workplace attitudes and behaviors (Feldman, 1996). For example, job satisfaction, organizational commitment, and job performance are decreased while the possibilities to leave their job are increased (Raja, Johns, & Ntalianis, 2004; Suazo, 2009; Wanous, Poland, Premack, & Davis, 1992; Zhao, Wayne, Glibkowski, & Bravo, 2007).

2.3. Effects of POQ

As mentioned before, overqualification is a widespread phenomenon all around the world (e.g. Büchel & Mertens, 2004; Lee, Erdogan, Tian, Willis, & Cao, 2021; Purohit, 2017). There are two contrasting perspectives (i.e. positive and negative effects on employee outcomes) in the literature about overqualification. The first one supports that the overqualified employees can use their surplus KSAs to their benefit, so as to cope with the demands of their job effectively (Erdogan & Bauer, 2021). According to various studies, Zhang, Law, and Lin (2016) state that those who consider they are overqualified have more possibilities to engage in a broader range of tasks because of the plethora of qualifications they possess and because they feel competent that they can manage (role breadth self-efficacy). Yet, POQ has an indirect effect on proactive behavior through role breadth self-efficacy. In addition, this positive self-perception of one's qualifications can convince the rest of the colleagues that the person is capable and benefits the group. As such, the particular employee receives high social acceptance (Deng, Guan, Wu, Erdogan, Bauer, & Yao, 2018). Furthermore, those who feel overqualified perform better in their job when their colleagues are also overqualified, through the high task significance and person-group fit (Hu, Erdogan, Bauer, Jiang, Liu, & Li, 2015).

The majority of the empirical studies, though, has focused on negative reactions of employees to POQ such as lower job satisfaction (Alfes et al., 2016; Johnson et al., 2002; Wassermann, Fujishiro, & Hoppe, 2017), lower organizational commitment (Feldman et al., 2002; Maynard et al., 2006; Maynard & Parfyonova, 2013), higher counterproductive work behaviors (Liu et al., 2015; Luksyte et al., 2011), higher emotional exhaustion (Gong, Sun, &

Li, 2021; Yu, Yang, Wang, Sun, & Hu, 2021) and higher turnover intentions (Harari et al., 2017; Lobene & Meade, 2013). The POQ, as a result, is mostly faced as a negative phenomenon in the workplace (Erdogan & Bauer, 2009), of course depending on the circumstances (Deng et al., 2018).

2.4. The role of HPWS

The last thirty years, scholars in Strategic Human Resource Management (SHRM) prove the important impact of HRM practices in the organizational outcomes, through which organizations succeed their goals and grow (e.g. Bae & Lawler, 2000; Beltrán-Martín, Roca-Puig, Escrig-Tena, & Bou-Llusar, 2008; Chow, 2012; Subramony, 2009). These practices are mainly referred to as “High-Performance Work Systems (HPWS)” (Appelbaum, Bailey, Berg, Kalleberg, & Bailey, 2000) or are identified in the HRM literature as “High-Performance Work Practices (HPWPs)”, “High-Commitment HR practices” (Whitener, 2001) and “High-Involvement Work Practices (HIWPs)” (Guthrie, 2001). In this study the term HPWS is used. Way (2002) characterizes the HPWS as “a set of distinct but interrelated HRM practices” which when combined select, motivate, develop, and retain the employees in the organization (p. 765). More particularly, HPWS are defined as “systems of managerial practices that increase the empowerment of employees and enhance the skills and incentives that enable and motivate them to take advantage of this greater empowerment” (Boxall & Macky, 2007, p. 262). Except for the employees’ skills, HPWS enhance employees’ commitment and productivity (Datta, Guthrie, & Wright, 2005). They constitute a systematic and integrated approach of HRM, that is aligned with the HR functions, with the accomplishment of the corporate strategy (Wei & Lau, 2010) and are considered a means to maximize organizations’ competitive advantage (e.g. Collins & Smith, 2006).

Many studies have highlighted their positive impact on employee attitudes and behaviors such as job satisfaction, work engagement and organizational citizenship behavior (Gong, Chang, & Cheung, 2010; Huang, Ma, & Meng, 2018; Ogbonnaya & Valizade, 2018; Wu & Chaturvedi, 2009), which in turn, have a positive impact on the organizational performance (Messersmith, Patel, Lepak, & Gould-Williams 2011; Zhang & Morris, 2014). However, studies have supported the negative relationship between HPWS and employee outcomes such

as emotional exhaustion or generally burnout (Jyoti & Rani, 2019; Kilroy, Bosak, Flood, & Peccei, 2020; Kloutsiniotis & Mihail, 2020; Salas-Vallina, Alegre, & López-Cabrales, 2021; Wang, Zhang, & Wan, 2021), employees' absenteeism, intention to leave and generally with turnover (Gkorezis, Georgiou, & Theodorou, 2018; Guchait & Cho, 2010; Karadas & Karatepe, 2019; Page, Bentley, Teo, & Ladkin, 2018; Way, 2002).

3. Hypotheses Development

3.1. *POQ and work-related boredom*

Boredom is a negative emotion experienced by many employees in their workplace. According to Fisher (1993), it is referred to as “an unpleasant, transient affective state in which the individual feels a pervasive lack of interest in and difficulty concentrating on the current activity” (p. 396). Previous research has shown that one factor, which causes high levels of work-related boredom is the POQ (Andel et al., 2021; Gkorezis & Vatou, 2018; Kim et al., 2021; Sánchez-Cardona, Vera, Martínez-Lugo, Rodríguez-Montalbán, & Marrero-Centeno, 2020).

Regarding this relationship, P-J fit provides an important theoretical explanation. Specifically, the phenomenon of POQ is characterized as a type of P-J misfit, as the skills and abilities an employee acquires do not match with the job requirements (Erdogan et al., 2011), so as a consequence negative outcomes are produced (e.g. Maynard & Parfyonova, 2013; McKee-Ryan & Harvey, 2011). According to Liu et al., (2015) when the employees feel that their needs are not met by their current job position, and generally by the organization as a whole, then it is highly likely that they will experience negative emotions (i.e. work-related boredom). Furthermore, Loukidou, Loan-Clarke and Daniels (2009) mention that a cause of work-related boredom arises from the higher educational levels of the employees that are demanded in the modern world. In other words, the qualifications exceed the requirements of the jobs, thus employees consider their job to be passive, unchallenging and unpleasant. Consequently, job positions that do not deploy employees' KSAOs do not attract employees' interest (Liu & Wang 2012). Similarly, Reijseger, Schaufeli, Peeters, Taris, Van Beek, and Ouweneel (2013) utilized the Job Demands-Resources (JD-R) Model in order to study the work-related boredom. The findings have shown that when there are low levels of job demands and job resources, then employees will have high levels of work-related boredom.

Moreover, the workplace is an environment loaded with emotions, sometimes positive and others negative. According to the stressor-emotion model of counterproductive work behavior (Fox & Spector, 2006) when an employee assesses negatively his/her working environment, then he/she will manifest a series of negative emotions, one of which is the

work-related boredom (Spector, Fox, Penney, Bruursema, Goh, & Kessler, 2006). In the case of POQ, considering the person-job misfit, employees have a negative image about their job position and the organization in general, because they are not given the chance to apply all of their qualifications and also not all of their needs are met in the equivalent position. Hence, this situation leads to higher levels of work-related boredom (Gkorezis & Vatou, 2018).

The organizational justice theory (Colquitt et al., 2001) and equity theory (Adams, 1965) perspective also bear relevance with the relationship of POQ and work-related boredom. More specifically, when inputs (e.g. education) do not match the outcomes (e.g. recognition), then employees will feel that they have been treated unfairly by the organization and they will experience negative emotions such as anger, outrage, anxiety, frustration, resentment and boredom (e.g. Fox & Spector, 1999; Gibson & Callister, 2010; Krehbiel & Cropanzano, 2000; Skarlicki & Folger, 1997). Therefore, based on the previously theoretical and empirical arguments, it is anticipated that POQ will be positively associated with work-related boredom.

Hypothesis 1. POQ is positively related to work-related boredom.

3.2. Work-related boredom and intention to leave

Over the past two decades, it has been placed a lot of emphasis on the employees' workplace emotions in the organizational literature (Ashkanasy & Daus, 2002; Ashkanasy & Dorris, 2017; Muchinsky, 2000). Regarding boredom, is a widespread emotion that almost all individuals have experienced some time in their jobs (Fisher, 1993). Some scholars have investigated its impact on employees' attitudes and behaviors (e.g. Kass, Vodanovich, & Callender, 2001; van Hooff & van Hooft, 2014). One of the negative effects that causes this emotion is the intention to leave. Generally, intention to leave refers to an individual's conscious and deliberate willfulness to leave the organization over a specific period of time (Tett & Meyer, 1993) and constitutes an important predictor of employee turnover (Griffeth, Hom, & Gaertner, 2000). For instance, Harju, Hakanen, and Schaufeli (2014) have found that work-related boredom increases the likelihood of employees' intention to leave by 2.1 times. Of course, these findings have shown that employees older than 56 years old were less likely to consider quitting their current job compared to the other age groups. Another research

pointed out that the more boredom employees experienced, the more they intended to quit their jobs (Reijseger et al., 2013).

This relationship can be based on the affective events theory (Weiss & Cropanzano, 1996), according to which employees' moods and emotions influence workplace attitudes such as organizational commitment and workplace behaviors such as turnover. Previous research has supported that negative affectivity (Bouckennooghe, Raja, & Butt, 2013) and unpleasant emotions (Cote & Morgan, 2002) increase the intention to leave. From the above review, it is postulated that work-related boredom will be positively associated with the intention to leave.

Hypothesis 2. Work-related boredom is positively related to intention to leave.

3.3. The mediating role of work-related boredom

Previous studies have shown that POQ is positively related to an individual's plans to leave an organization or position of employment (e.g. Lobene & Meade, 2013; Lobene et al., 2015; Maynard, et al., 2006; McKee-Ryan, Virick, Prussia, Harvey, & Lilly, 2009). For example, Maynard et al. (2006) using the P-J fit as theoretical basis, found that POQ was positively related to intention to leave among a group of college employees and alumni in the northeastern United States, with the involuntary part-time employees demonstrating more similar intentions than those who are full-time or voluntary part-time employees. In other words, a poor P-J fit arises, which has as a result employees to believe that they deserve a better job position that matches their qualifications better, a fact that leads them in the intention to leave (Harari et al., 2017). For this reason, organizations prefer to hire employees with high P-J fit (Higgins & Judge, 2004).

Additionally, scholars employing the RDT support that the feeling of deprivation motivates employees to leave from the organization soon (i.e. intention to leave), so as to walk away from job positions which are beneath them (Erdogan & Bauer, 2009; Harari et al., 2017; Kraimer et al., 2009; Ye et al., 2017). In addition, Erdogan et al. (2011), based on the equity theory, mention that if an employee feels unappreciated, then a possible behavior is quitting

his/her job. Similarly, Harari et al. (2017) state that the organizational justice theory is relevant with the overqualified employees' intention to leave. Last but not least, through the psychological contract theory, employees might feel that despite the fact that they possess many qualifications, the organization does not give them the opportunities to deploy them. There is a lack of reciprocity, in other words, on behalf of the organization due to psychological contract breach. As a consequence the employees think that a possible solution to their problem could be to leave from it (Raja et al., 2004; Suazo, 2009; Zhao et al., 2007).

To study the relationship between POQ and intention to leave this research employs a mediating mechanism, namely work-related boredom. In light of the previous analyses (Hypothesis 1 and Hypothesis 2), it is expected that POQ through the work-related boredom (negative emotion) can increase the employees' intention to leave from their current job. It is worth mentioning that a recent empirical research has demonstrated the partially mediating role of work-related boredom in the relationship between the POQ and organizational cynicism (negative attitude) (Gkorezis & Vatou, 2018). Similarly, Kim et al. (2021) have shown that work-related boredom mediates positively the relationship between POQ and counterproductive work behaviors (negative behaviors) and negatively the relationship between POQ and organizational citizenship behavior (positive behavior). Andel et al. (2021) have also found that work-related boredom functions as a mediator in the relationship of POQ and cyberloafing behaviors (negative behaviors).

These negative employees' reactions have been supported to have positive connection with the intention to leave (e.g. Chiaburu, Peng, Oh, Banks, & Lomeli, 2013; Tillman, Hood, & Richard, 2017). In fact, Erdogan et al. (2011) mention that the employees with advanced degrees and multi-year, high-level experience are probably characterized by low morale and boredom because of the mismatching position they possess. Through these emotions, they tend to present lower performance and higher rate of turnover. Hence, based on the preceding discussion, the following hypothesis is formed:

Hypothesis 3. Work-related boredom mediates the positive relationship between POQ and intention to leave.

3.4. The moderating role of perceived HPWS

Up until now, only a few independent HRM practices have been used by scholars as moderator in the relationship between POQ and workplace outcomes such as autonomy and job crafting (Debus et al., 2020; Wu et al., 2015; Wu et al., 2017). However, never have the HRM practices been studied as a system that can moderate this relationship (Erdogan & Bauer, 2021). This study attempts to identify perceived HPWS as a possible moderator of POQ-intention to leave linkage firstly using RDT and SET as theoretical frameworks, and then of POQ-work-related boredom linkage using JCT.

3.4.1. Moderation of the direct effect

As it was mentioned before, past research has found that the employees who consider themselves as being overqualified, regularly think about leaving the organization (e.g. McKee-Ryan et al., 2009). Erdogan and Bauer (2011) state that a potential moderator of the underemployment–turnover relationship could be the degree according to which performance is rewarded in the corresponding job position. In other words, the more the organization acknowledges the employees' effectiveness through rewards, the more the underemployed employees will desire to remain at it.

According to RDT, overqualified employees, because of the disappointment they experience, they do not wish to stay in this position for a long period of time (e.g. Kraimer et al., 2009). Sweeney, McFarlin, and Inderrieden (1990) have shown that based on this theory, those with higher incomes were more satisfied than those with lower incomes on the average. Therefore, in the particular case compensation plays an important role. Consequently, the better HPWS an organization possesses, especially with quality compensation, the less intensive the sense of deprivation owing to the POQ. In this way, employees' intention to leave will be decreased as well. Furthermore, when the organization provides autonomy to the employees and shows them that they are appreciated and respected, then employees in turn feel that they possess the skills to fulfill effectively their job duties and that their work has an impact on the department (Spreitzer, 1996). Specifically, Erdogan and Bauer (2009) showed that psychological empowerment moderates the negative relationship between POQ and

intentions to remain. The relationship will be weaker when psychological empowerment is high. It is worth noting that the performance feedback (appraisal) and the performance-based reward systems (appraisal & compensation) are positively related to employees' psychological empowerment (Spreitzer, 1995).

Another theory that can explain this moderation of the direct effect is SET. Cropanzano and Mitchell (2005) state that the SET "is among the most influential conceptual paradigms for understanding workplace behavior" (p. 874). It is characterized as the long-term oriented employment relationship which includes mutual emotional investment and trust between organization and employees with open-ended and diffuse obligations (Shore, Tetrick, Lynch, & Barksdale, 2006). As a consequence, if the organization offers substantial motives which will satisfy the needs of the employees, then the employees will reciprocate with generally desired attitudes and behaviors such as job satisfaction, work engagement and organizational citizenship behavior (Mihail & Kloutsiniotis, 2016; Zhang, Bal, Akhtar, Long, Zhang, & Ma, 2019; Zhang, Zhu, Dowling, & Bartram, 2013).

More analytically, as far as the HRM practices are concerned, when the recruitment and selection procedures are strictly objective and meritocratic, they show that the organization appreciates highly its employees. Also, the rigorous training confirms how important the employees are for the organization itself, as with this practice the employers suggest organizational investment and commitment towards the employees. Moreover, the appraisal is probably connected with praises and opportunities for employees' promotion (Takeuchi, Lepak, Wang, & Takeuchi, 2007). Therefore, through the HPWS, the organization shows that it appreciates highly the knowledge and the skills of employees, a fact that deteriorates the negative effects of POQ. As such, the employees with the motives they receive, they desire to remain in their job positions (Gould-Williams & Davies, 2005), but when the organization possesses an HPWS with negative exchanges a greater propensity to quit will occur (Gould-Williams, 2007). As such, based on the above reasoning, it is hypothesized that perceived HPWS will moderate the impact of POQ on intention to leave.

Hypothesis 4. Perceived HPWS moderates the positive relationship between POQ and intention to leave in such a way that the relationship is weaker when perceived HPWS is high than when it is low.

3.4.2. Moderations on POQ-work-related boredom and indirect effect

Scholars have argued that, the lack of meaningful and challenging activities in comparison with simple and repetitive tasks influences the perception of the employees about the overqualification and is positively related to the work-related boredom (Lobene et al., 2015; Van Tilburg & Igou, 2012). In the POQ literature, Peiró, Agut, and Grau (2010) have found that overqualified employees consider their jobs intrinsically less satisfying (e.g. skill underutilization, low task variety). Thus it is possible that because of the POQ, some negative emotions such as work-related boredom will be created (e.g. Andel et al., 2021; Gkorezis & Vatou, 2018).

JCT (Hackman & Oldham, 1976) provides a theoretical basis for understanding the moderating role of perceived HPWS in the relationship between POQ and work-related boredom. In the job design related literature, it constitutes the most widely cited model (DeVaro, Li, & Brookshire, 2007) and describes how the characteristics of a job influence the emotions the employees develop in their workplace (Velasco, 2017). Particularly, there are five core job characteristics, which are autonomy (i.e. freedom, independence, and discretion to the employee for the completion of his/her work), feedback (i.e. information about the performance of an employee on conducting his/her duties), skill variety (i.e., the job demands a number of different skills and talents of the employee), task significance (i.e. the degree in which the jobs are meaningful and impact on the lives or work of other people), and task identity (i.e. the job demands completion of a ‘whole’ and identifiable piece of work) (Hackman & Oldham, 1975, p. 161-162).

Therefore, when an organization gives autonomy to its employees, then they can create job conditions that will allow them to utilize all the skills they possess (Debus et al., 2020; Wu et al., 2015; Wu et al., 2017). As for the feedback, when the employees receive a negative assessment of their performance, then they conflict with the self-image that they possess more skills than the job requires and they can maybe revamp (Johnson & Ferstl, 1999). Specifically, when the feedback they get, does not coincide with the perception that they are overqualified, then the self-verification motivation is created. Because of this, employees have greater desire to demonstrate their qualifications so as to receive a self-verification feedback (Brooks, Swann Jr, & Mehta, 2011). Furthermore, increased skill variety offers the employees the chance of performing a challenging and interesting job (Hackman & Oldham, 1976). Of course, even the overqualified employees need training in order to deploy effectively their

skills in other areas (Erdogan et al., 2011). What is more, the encouragement of the employees does not depend exclusively on the compensation, but they are also interested if their job is substantial and effective for the organization (task significance) (Grant, 2008). Finally, the employees who have taken on a larger part of a “whole” task believe that their own work is more meaningful than this of the employees with less parts (task identity) (Hackman & Oldham, 1976).

All of these contribute negatively in the relationship POQ-work-related boredom. In other words, if the organization bears in mind all the above-mentioned, then the better the employees think of the HPWS, the more the relationship POQ-work-related boredom will be decreased. Generally, job characteristics focus on creating more interesting work (i.e. less work-related boredom), a fact that can lead to reduction of absenteeism and turnover (Kass et al., 2001). As a result, this rationale is summarized in the fifth hypothesis of this study:

Hypothesis 5. Perceived HPWS moderates the positive relationship between POQ and work-related boredom in such a way that the relationship is weaker when perceived HPWS is high than when it is low.

Thus far, it is proposed that POQ is likely to result in higher employees’ work-related boredom (Hypothesis 1). Moreover, it is posited that work-related boredom is positively related to intention to leave (Hypothesis 2). Also, it was suggested that work-related boredom mediates the positive relationship between POQ and intention to leave (Hypothesis 3). Finally, the Hypothesis 4 and Hypothesis 5 support that the perceived HPWS moderates the positive relationship between POQ and intention to leave and the positive relationship between POQ and work-related boredom correspondingly. Combined, it is expected that the indirect effect of POQ on intention to leave via work-related boredom is contingent on perceived HPWS. Therefore, the following hypothesis is postulated:

Hypothesis 6. Perceived HPWS moderates the indirect relationship between POQ and intention to leave through work-related boredom in a such a way that the relationship is weaker when perceived HPWS is high than when it is low.

4. Methodology

4.1. Procedure and sample

Data were collected from a manufacturing company, which employs about 650 employees all over Greece. For survey purposes, employees from all professional teams and hierarchy levels were approached. Furthermore, the sample is exclusively comprised of employees who operate in the organization's headquarters in a specific region in Greece, since their approach was easier due to proximity reasons. The majority of the employees is employed there, counting about 350 employees. As for the questionnaire, it was comprised of information for the purpose of the study, the necessity of being honest as a basic prerequisite of completing the questionnaire and the declaration that anonymity of the answers provided is ensured. What is more, it is worth mentioning that there was a phone call with the HR manager of the organization, who was informed from the very beginning about the content and the purposes of the paper and allowed the research team to address the staff personally. Also, despite the heavy workload, he/she contributed in promoting the questionnaire in his/her department.

In aggregate, 281 questionnaires were distributed, from which 221 were returned fully completed, yielding a 78.6% response rate. However, 31 of them were declared problematic and were deducted from the sample, as there were important discrepancies in the views of the participants in the overqualification variable (e.g. an employee answered in 5 out of 9 questions with 2 = "Disagree" and in the rest 4 with 5 = "Strongly Agree") despite the fact that there was no reverse-coded item. Also, 2 more questionnaires were not included because they contained important missing values, shaping the total sample of 188 answers. More specifically, over half of the respondents were male (52.7%) and the average age was 42 years ($SD=11.081$). The majority of the participants (61.2%) were High School/ Lyceum graduates and 78.7% was employed on a permanent basis. The average job experience of the sample was 17.4 years ($SD=10.27$), while the mean tenure in the current organization was 13.2 years ($SD=10.43$) with maximum employment time being 38 years.

4.2. Measures

Questionnaires were administered in Greek following a back translation process (Brislin, 1976). All items used in the present study were anchored on a 5-point Likert scale ranging from 1 = “Strongly Disagree” to 5 = “Strongly Agree” unless otherwise noted (see Appendix). All scale reliabilities (Cronbach’s alpha) were acceptable (Table 1), exceeding the value (.70) recommended by Nunnally (1975).

4.2.1. “Perceived Overqualification”

For the measurement of “Perceived overqualification” was used Maynard et al.’s (2006) nine-item scale. Two example items are “Someone with less education than myself could perform well on my job” and “Someone with less work experience than myself could do my job just as well”. Higher scores indicated higher levels of POQ in the workplace. The Cronbach's alpha coefficient was .89.

4.2.2. “Work-related Boredom”

“Work-related boredom” was assessed using the five-item scale developed by van Hooff and van Hooft (2014). Sample items include “There are long periods of boredom on my job” and “The time seems to go by slowly when I’m at work”. Employees provided their responses on a 5-point Likert scale ranging from 1 = “never” to 5 = “always”. Higher scores indicated higher levels of work-related boredom in the workplace. Cronbach’s alpha for this measure was .938.

4.2.3. “Intention to leave”

“Intention to leave” was measured by three items, based on the scale developed by Ang, Bartram, McNeil, Leggat, and Stanton (2013). Sample items are “I think of searching for another position with another organization” and “I often think of leaving the organization within the next year”. Higher scores indicated higher levels of intention to leave. The 3-item scale had a Cronbach’s alpha value of .902.

4.2.4. *“Perceived HPWS”*

In total, to measure the perceived HPWS 18 items were used epitomizing five sub-scales (i.e. HRM practices), following the extant literature in the manufacturing sector (e.g. Chi & Lin, 2011; Kloutsiniotis & Mihail, 2020; Prieto & Santana, 2012; Takeuchi et al., 2007; Zacharatos, Barling, & Iverson, 2005). The practices have been measured on the basis of employees' perceptions. Specifically, the first one is “Recruitment and Selection” (four of five items included, $\alpha = .847$), which was evaluated according to the measuring scale of Zacharatos et al. (2005). Sample item is “Favoritism is not evident in any of the recruitment decisions made in this organization”. Hereupon, “Compensation” (all four items included, $\alpha = .813$) was measured according to the measuring scale of Prieto and Santana (2012). Sample item from this sub-scale is “Employees in this organization receive monetary rewards based on their group performance”. Afterwards, “Appraisal” (all of three items included, $\alpha = .871$) was based on the measuring scale of Sun, Aryee, and Law (2007) with sample item “Performance is more often measured with objective quantifiable results”. “Training and development” (all of four items included, $\alpha = .85$) was based on the measurement scale of Takeuchi et al. (2007) with sample item “Training is continuous at my work”. The last one “Job design” (three of four items included, $\alpha = .814$) was evaluated in accordance with the measuring scale of Delery and Doty (1996) with sample item “The duties of this job are clearly defined”. The higher score a sub-scale appears to have, the better the practice is and consequently a good perceived HPWS comes up. Cronbach's alpha for the perceived HPWS was .91.

4.3. *Control Variables*

The present study also controlled for a number of demographic variables, including gender (1 = male, 2 = female), age (in years), educational level (1 = High school/Lyceum diploma, 2 = Technical Institution's degree, 3 = University's degree, 4 = Master's degree, 5 = Other), employment status (1 = Permanent position, 2 = Contract staff, 3 = Trainee, 4 = Other), job experience (in years) and organizational tenure (in years). Given that gender, age and job experience had significant bivariate correlations with the present outcomes, these demographic variables were used in the subsequent statistical analysis and the remaining were excluded (Becker, 2005).

Table 1. Descriptive statistics, reliabilities, and correlations.

	Mean	SD	1	2	3	4	5	6	7	8	9	10
1 Gender	1.473	.501										
2 Age	41.957	11.111	.075									
3 Educational level	1.851	1.291	.118	-.166*								
4 Employment status	1.266	.57	.062	-.454*	.003							
5 Job experience	17.399	10.293	.017	.848**	-.131	-.432**						
6 Organizational tenure	13.197	10.459	-.003	.760**	-.122	-.479**	.856**					
7 POQ	2.917	.765	.010	-.250**	.073	.089	-.259**	-.268*	(.89)			
8 Work-related boredom	2.23	.975	-.095	.020	-.085	.020	.051	.098	.184*	(.938)		
9 Intention to leave	2.307	.982	-.163*	-.188*	.057	.073	-.155*	-.071	.209**	.465**	(.902)	
10 Perceived HPWS	3.104	.641	.124	-.136	-.046	.038	-.144*	-.186*	.001	-.448**	-.482**	(.91)

Note: Internal reliabilities (alpha coefficients) for the constructs are given in parentheses on the diagonal.

*p ≤ .05; **p ≤ .01.

4.4. Analysis

To examine the hypotheses of the present study, Model 4 and 8 were used from the Process macro (Hayes, 2017). The specific analysis was preferred against the SEM (Structural Equation Modeling), as the sample of the present study is not wide enough to be appropriate for the SEM. Nonetheless, the results that have generally come up from the Process Macro are similar to those of the SEM for this kind of analyses (Hayes, Montoya, & Rockwood, 2017). Moreover, Process Macro employs bootstrapping techniques to investigate both the interaction effect of a moderator on the mediator and the indirect effect of an independent variable (X) through the mediator on a depended variable (Y).

5. Results

Means, standard deviations, reliabilities (in parentheses), and correlations among the present variables are presented in Table 1. The results showed that POQ is positively related to both work-related boredom ($r = .184, p < .05$) and intention to leave ($r = .209, p < .01$). Likewise, work-related boredom is positively related to intention to leave ($r = .465, p < .01$).

5.1. *Confirmatory Factor Analysis (CFA)*

In order to prove that there was a good fit to the data from the measurement model, CFA was used in AMOS 23 statistical software. CFA is “a type of structural equation modeling that deals specifically with measurement models; that is, the relationships between observed measures or indicators and latent variables or factors” (Brown & Moore, 2012, p. 2). For the evaluation of the model fit, the most commonly used and popular fit indices in literature are the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA) (Hu & Bentler, 1999). The limits of the above fit indices are $CFI > .90$, $TLI > .90$, $RMSEA < .08$. As far as the present measurement model is concerned, it is made up from thirty five indicators and four latent variables. It is worth underlining that HPWS is a second-order factor; the five HRM practices (recruitment & selection, training & development, compensation, appraisal and job design) loaded onto one HRM factor, while the POQ, work-related boredom, and intention to leave are first-order factors. As a consequence, according to the results of CFA, the measurement model showed a good model fit ($\chi^2 [545] = 772.210, p < .01$, $CFI = .943$, $TLI = .937$, $RMSEA = .047$).

However, POQ, work-related boredom, intention to leave, and HPWS were measured from the same source, to which translated questionnaires were given. As such, the validity of the present measurement model must be evaluated. Consequently through CFA the discriminant validity can be estimated. Particularly, the measurement model was compared to six alternative models, as it appears on Table 2. From the results it became obvious that the Four-factor model fitted the data better than other similar models (e.g. Three-factor model: POQ and perceived HPWS has $\chi^2 [547] = 1079.258, p < .01$, $CFI = .865$, $TLI = .854$, $RMSEA$

= .072). This means that there is distinctiveness of the constructs in this study. Except for the discriminant validity, through CFA the convergent validity can be demonstrated too. Indeed all standardized coefficients were significant.

Table 2. Confirmatory Factor Analysis.

Model	χ^2	df	$\Delta\chi^2$	TLI	CFI	RMSEA
<i>Four-factor model</i>	772.210	545	-	.937	.943	.047
<i>Three-factor model: POQ and work-related boredom</i>	1274.466	547	502.256**	.800	.816	.084
<i>Three-factor model: POQ and perceived HPWS</i>	1079.258	547	307.048**	.854	.865	.072
<i>Three-factor model: POQ and intention to leave</i>	1024.578	547	252.368**	.869	.879	.068
<i>Three-factor model: work-related boredom and intention to leave</i>	944.626	547	172.416**	.891	.899	.062
<i>Three-factor model: work-related boredom and perceived HPWS</i>	949.064	547	176.854**	.889	.898	.063
<i>Three-factor model: perceived HPWS and intention to leave</i>	927.242	547	155.032**	.895	.904	.061
<i>One-factor model</i>	1484.876	547	712.666**	.731	.752	.098

Note: * $p \leq .05$; ** $p \leq .01$.

To evaluate Common Method Variance (CMV), Harman's single factor test was firstly used in CFA (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). As it can be verified from the results in Table 2, the One-factor model has a poor fit ($\chi^2 [547] = 1484.876$, $p < .01$, CFI = .752, TLI = .731, RMSEA = .098). Moreover, the Harman's single factor method was applied to SPSS as well. A principal component analysis was conducted between all of the variables that were used to measure POQ, work-related boredom, intention to leave, and perceived HPWS in the model. Then, in the extraction one fixed number of factors was chosen to be extracted for all measured variables. Therefore, in the table Total Variance Explained in the output, this single factor explains 27.14% of the variance. Thus, as long as it does not exceed 50%, meaning the majority variance, then there is no issue of CMV. Furthermore, another method that is suggested is the Common Latent Factor (CLF) in Amos (Podsakoff et al., 2003). Specifically, another latent variable with the name "Common Factor" is added in the

Table 3. Standardized Regression Weights.

With CLF				Estimate	No CLF				Estimate	Delta
Rec	←	HPWS		.815	Rec	←	HPWS		.823	.008
Comp	←	HPWS		.801	Comp	←	HPWS		.814	.013
Train	←	HPWS		.696	Train	←	HPWS		.701	.005
JobDes	←	HPWS		.599	JobDes	←	HPWS		.616	.017
Appr	←	HPWS		.607	Appr	←	HPWS		.619	.012
Rec1	←	Rec		.676	Rec1	←	Rec		.69	.014
Rec2	←	Rec		.559	Rec2	←	Rec		.574	.015
Rec4	←	Rec		.828	Rec4	←	Rec		.831	.003
Rec5	←	Rec		.831	Rec5	←	Rec		.845	.014
Comp1	←	Comp		.771	Comp1	←	Comp		.781	.01
Comp2	←	Comp		.769	Comp2	←	Comp		.78	.011
Comp3	←	Comp		.632	Comp3	←	Comp		.648	.016
Comp4	←	Comp		.675	Comp4	←	Comp		.694	.019
Train1	←	Train		.839	Train1	←	Train		.854	.015
Train2	←	Train		.821	Train2	←	Train		.827	.006
Train3	←	Train		.708	Train3	←	Train		.718	.01
Train4	←	Train		.567	Train4	←	Train		.584	.017
JobDes1	←	JobDes		.637	JobDes1	←	JobDes		.651	.014
JobDes2	←	JobDes		.861	JobDes2	←	JobDes		.871	.01
JobDes3	←	JobDes		.796	JobDes3	←	JobDes		.811	.015
Appr1	←	Appr		.886	Appr1	←	Appr		.895	.009
Appr2	←	Appr		.85	Appr2	←	Appr		.862	.012
Appr3	←	Appr		.736	Appr3	←	Appr		.748	.012
Ovq9	←	Ovq		.605	Ovq9	←	Ovq		.616	.011
Ovq8	←	Ovq		.651	Ovq8	←	Ovq		.661	.01
Ovq7	←	Ovq		.808	Ovq7	←	Ovq		.82	.012
Ovq6	←	Ovq		.745	Ovq6	←	Ovq		.756	.011
Ovq5	←	Ovq		.657	Ovq5	←	Ovq		.667	.01
Ovq4	←	Ovq		.562	Ovq4	←	Ovq		.575	.013
Ovq3	←	Ovq		.787	Ovq3	←	Ovq		.797	.01
Ovq2	←	Ovq		.65	Ovq2	←	Ovq		.659	.009
Ovq1	←	Ovq		.592	Ovq1	←	Ovq		.606	.014
Bor5	←	Bor		.85	Bor5	←	Bor		.857	.007
Bor4	←	Bor		.928	Bor4	←	Bor		.935	.007
Bor3	←	Bor		.798	Bor3	←	Bor		.805	.007
Bor2	←	Bor		.862	Bor2	←	Bor		.872	.01
Bor1	←	Bor		.838	Bor1	←	Bor		.849	.011
Leave1	←	Leave		.87	Leave1	←	Leave		.88	.01
Leave2	←	Leave		.859	Leave2	←	Leave		.868	.009
Leave3	←	Leave		.853	Leave3	←	Leave		.86	.007

Note: Delta is the Difference.

CFA measurement model, which is linked with all the observed items. Then, there is a comparison of the standardized regression weights with and without CLF. The difference should not be more than .200. According to the results (Table 3), there is no problem of CMV. Lastly, the participants were ensured about the anonymity of their answers and the general confidentiality, and were encouraged to be as honest as possible, so that to mitigate CMV (Chang, Van Witteloostuijn, & Eden, 2010).

5.2. Hypothesis tests

The results of the Process macro are presented in Tables 4, 5, 6, and 7. More analytically, Hypothesis 1 suggested that POQ is positively associated with work-related boredom. As is shown in Table 4, results indicate support for the aforementioned hypothesis ($\beta = .269$, $p < .01$). Similarly, work-related boredom was hypothesized to be positively connected with intention to leave. Indeed, the findings demonstrated this relationship ($\beta = .447$, $p < .01$). Therefore, Hypothesis 2 is supported. As far as the Hypothesis 3 is concerned, it is proposed that work-related boredom will mediate the relationship between POQ and intention to leave. But, essential condition for mediation to exist is that the indirect effects between POQ (independent variable) and intention to leave (dependent variable) should be statistically significant (MacKinnon, Fairchild, & Fritz, 2007; Zhao, Lynch Jr, & Chen, 2010). As it was stated before, these relationships are statistically significant. Therefore, work-related boredom could function as a mediating mechanism in the relationship between POQ and intention to leave. Specifically, bootstrapping results (5000 bootstrap samples with 95% confidence intervals) supports the indirect association since it does not include zero (.032, .222). Hence, Hypothesis 3 is supported.

Table 4. Results of the direct hypotheses.

Direct Hypotheses and Corresponding paths	β	SE	t	Hypotheses support
Work-related boredom \leftarrow POQ	.269	.095	2.834**	H1 supported
Intention to leave \leftarrow Work-related boredom	.447	.066	6.826**	H2 supported

Notes: Unstandardized regression coefficients reported. * $p \leq .05$; ** $p \leq .01$.

Table 5. Mediation test.

Bootstrap results for indirect effect	<i>M</i>	<i>SE</i>	L95% CI	U95% CI	Hypotheses support
POQ → Work-related boredom → Intention to leave	.12	.049	.032	.222	H3 supported

Notes: Bootstrap sample size 5000. L = lower limit; U = upper limit, CI = confidence interval.

The following hypotheses are about the moderating role of perceived HPWS. It is worth noting that the predictor (POQ) and the moderating variable (perceived HPWS) were mean-centered in order to alleviate the potential effect of multicollinearity (Aiken, West, & Reno, 1991). Specifically, Hypothesis 4 proposed that perceived HPWS would moderate the positive relationship between POQ and intention to leave. As Table 6 presented, perceived HPWS significantly moderated the POQ-intention to leave relationship ($\beta = -.344, p < .01$). Furthermore, slope analysis was conducted for a detailed investigation of this interaction (Aiken et al., 1991). Therefore, according to the results, for low levels of perceived HPWS (-1 S.D.) there is a significant positive relationship between POQ and intention to leave ($\beta = .359, p < .01$). However, for high levels of perceived HPWS (+1 S.D.) this relationship is not significant ($\beta = -.083, n.s.$). This interaction is plotted on Figure 2. Combined, the present results supported Hypothesis 4. Furthermore, Hypothesis 5 investigated the interaction of POQ with perceived HPWS in predicting work-related boredom. As table 7 shows, the results supported this hypothesis ($\beta = -.217, p < .05$). Additionally, slope analysis shows that for low levels of perceived HPWS (-1 S.D.) there is a significantly positive relationship between POQ and work-related boredom ($\beta = -.381, p < .01$). On the contrary, for high levels of perceived HPWS (+1 S.D.) this relationship is not significant ($\beta = .103, n.s.$). Figure 3 presents this interaction effect. Hence, Hypothesis 5 is supported. As regards the last hypothesis, it is stated that perceived HPWS moderates the indirect effect of POQ on intention to leave through work-related boredom. According to the findings, the indirect relationship is significant across low levels of perceived HPWS (effect = .092, $p < .05$; CI between .022 and .176). However, when perceived HPWS is high then the indirect effect isn't significant (effect = .025, $n.s.$; CI between -.014 and .083). Taken together, the present results provide support for the moderated mediation model (Hypothesis 6).

Table 6. Moderated results for POQ-intention to leave relationship (model 8).

	Intention to leave	Hypotheses support
Control variables		
Constant	2.816	
Gender	-.212	
Age	-.017	
Job experience	-.002	
POQ	.138	
Perceived HPWS	-.553**	
POQ * perceived HPWS	-.344**	H4 supported
Adjusted R^2	.427**	

Note: * $p \leq .05$; ** $p \leq .01$.

Table 7. Moderated mediation results (model 8).

	Work-related boredom				Hypotheses support
Control variables					
Constant		2.514			
Gender		-.111			
Age		-.008			
Job experience		.011			
POQ		.242**			
Perceived HPWS		-.634**			
POQ * perceived HPWS		-.217*			H5 supported
Adjusted R^2		.257**			
Indirect effect of POQ on intention to leave (via work-related boredom) at low, medium and high levels of perceived HPWS	Effect	SE	LLCI	ULCI	Hypotheses support
Low perceived HPWS	.092	.04	.022	.176	
Mean perceived HPWS	.058	.026	.014	.117	H6 supported
High perceived HPWS	.025	.024	-.014	.08	

Note: * $p \leq .05$; ** $p \leq .01$.

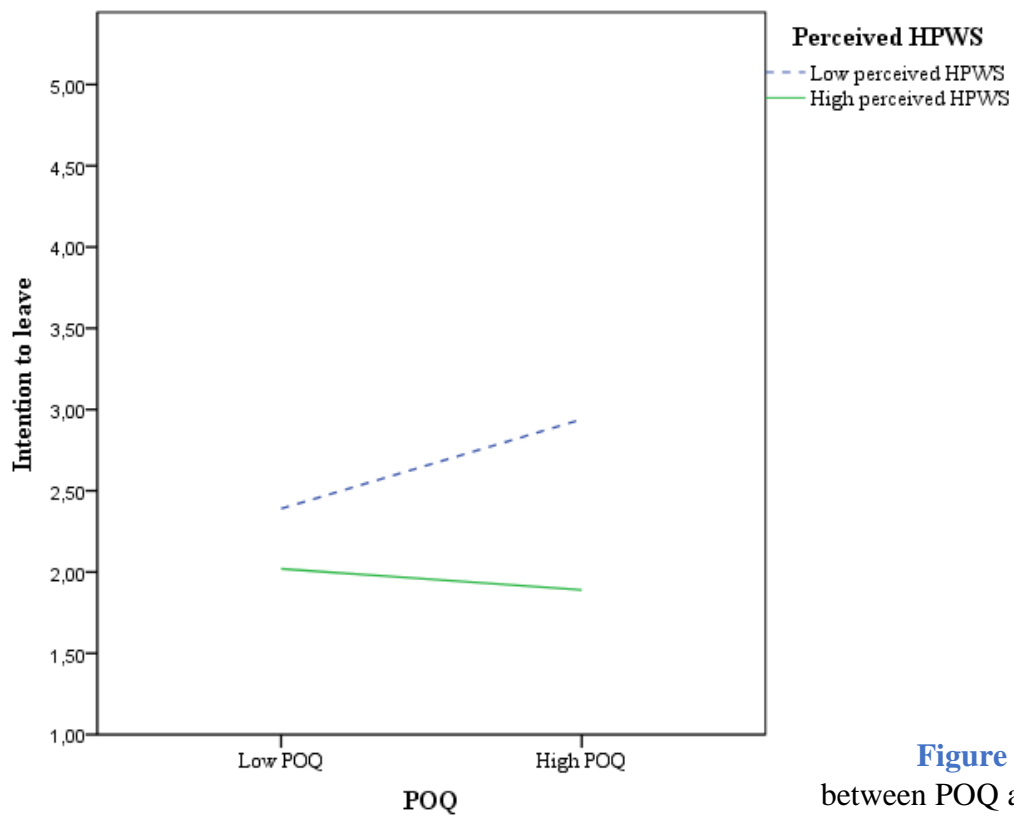


Figure 2. Interaction between POQ and perceived HPWS on intention to leave.

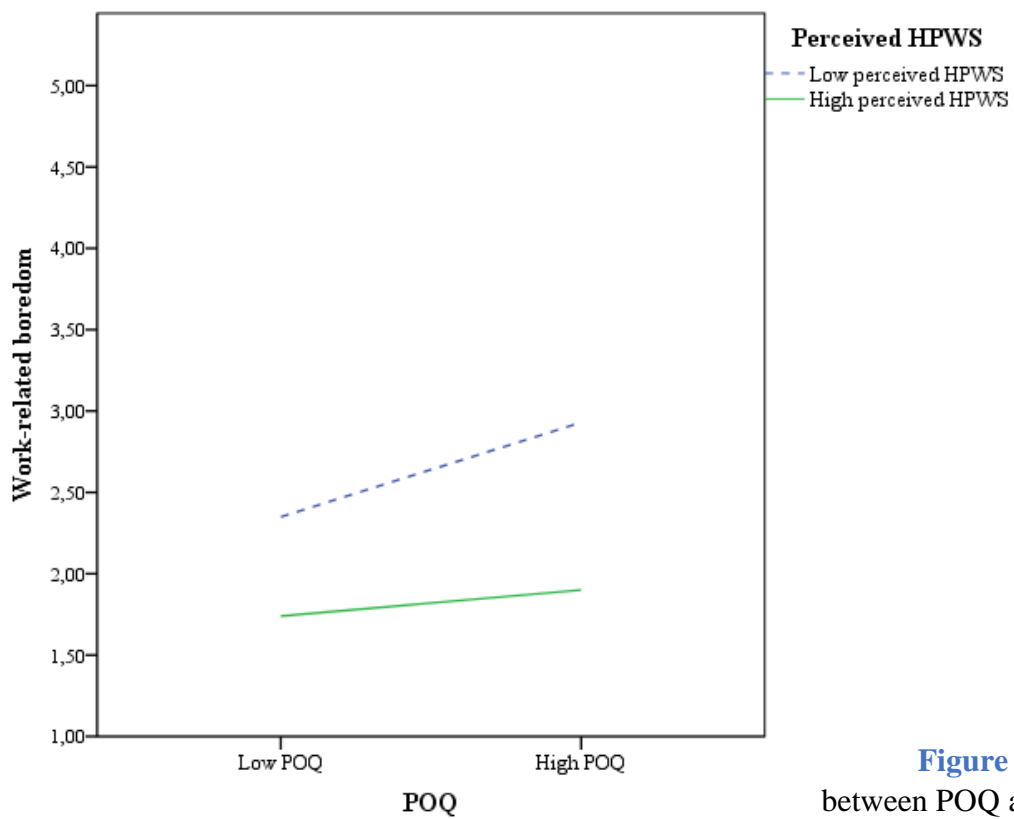


Figure 3. Interaction between POQ and perceived HPWS on work-related boredom.

6. Discussion

The current research employs the mediating role of work-related boredom and the moderating role of perceived HPWS, so that a better understanding of the linking POQ and intention to leave will be acquired. In particular, the findings showed that indeed work-related boredom serves as a mediator in the above mentioned association. In addition, the results demonstrated that perceived HPWS moderates primarily the direct effect of POQ on intention to leave. In the same vein, the aforementioned boundary condition moderates the relationship between POQ and work-related boredom and, in turn, intention to leave.

6.1. *Theoretical implications*

Previous studies have successfully suggested that when employees feel overqualified for their job, they consider about quitting it and finding another job position in a different organization (e.g. Harari et al., 2017; Lobene & Meade, 2013; Lobene et al., 2015; Maynard et al., 2006; Maynard & Parfyonova, 2013; McKee-Ryan et al., 2009; Ye et al., 2017). In explaining this relationship, this study concerns an important, negative emotion that is work-related boredom. Consequently, the overqualified employees are highly likely to feel bored in their job, which in turn increases the intention of leaving from the organization. Until now, work-related boredom has not been examined as an underlying mechanism clarifying the relationship between POQ and intention to leave. This mediator has been used as an intervening mechanism in a handful of surveys from different settings (e.g. Gkorezis & Kastritsi, 2017; Van Wyk, De Beer, Pienaar, & Schaufeli, 2016) and in a few relevant with the POQ (Andel et al., 2021; Gkorezis & Vatou, 2018; Kim et al., 2021). Consistent with the latter studies, using P-J fit theory, stressor-emotion model of counterproductive work behavior, organizational justice theory and equity theory as theoretical bases, it is examined that POQ affects positively the work-related boredom. In the same way, using the affective events theory, the positive association between work-related boredom and intention to leave is investigated.

Furthermore, except for the above-mentioned mediating mechanism, which explains the relationship between the POQ and the intention to leave, this study explores the moderating mechanism of perceived HPWS, using RDT and SET as theoretical lens. By demonstrating perceived HPWS as a moderator in the present relationships, this research responds to the recent call of investigating the moderating role of HRM practices on the association between POQ and outcomes (Erdogan & Bauer, 2021). In accordance with the results, the direct effect of POQ on intention to leave is significant only in case there are low levels of perceived HPWS. In case there are high levels of perceived HPWS, POQ is not related to intention to leave. In a similar vein, building upon JCT the study examines the same moderator in the relation between the POQ and the work-related boredom. The present results revealed that when employees' perceptions of HPWS are low, then the direct effect of POQ on work-related boredom and finally intention to leave are significant. In contrast, when perceptions are high, then POQ will have a nonsignificant effect on work-related boredom and ultimately intention to leave. Thus, the above moderation results contribute in literature, which explores boundary conditions in the association between POQ and emotional, attitudinal and behavioral outcomes (e.g. Cheng, Zhou, Guo, & Yang, 2020; Maynard & Parfyonova, 2013; Schreurs, Hamstra, Jawahar, & Akkermans, 2020; Zheng & Wang, 2017). Combined, a moderated mediation model was developed in order to provide a better understanding of the POQ-intention to leave linkage. More particularly, through this model, it is becoming clear how (work-related boredom) and when (perceived HPWS) this relationship exists.

Finally, in contrast with the majority of the empirical studies (e.g. Brynin & Longhi, 2009; Green & Zhu, 2010; Simon et al., 2019; Wald, 2005; Wassermann & Hoppe, 2019), overqualification was investigated in a non-Western country (e.g. Deng et al., 2018; Erdogan et al., 2020). The present research was attempted in Greece, where only a few similar studies have been conducted before, in order to explain the phenomenon of overqualification (Gkorezis et al., 2019; Gkorezis & Vatou, 2018). This country specifically has high rates of unemployment (Eurostat, 2021a) and tertiary enrollment (OECD, 2019). Also, compared to the OECD countries (2019), the Bachelor or postgraduate degree holders in Greece have the lowest rates of employment. Hence, the results of this study reinforce the generalizability of the effect of POQ on employees' outcomes.

6.2. *Practical implications*

The organizations should pay special attention to the phenomenon of overqualification in the workplace, as it seriously affects employees' emotions, attitudes and behaviors. This impact sometimes triggers the desired employee outcomes (e.g. Erdogan & Bauer, 2009; Hu et al., 2015; Zhang et al., 2016) and other times some non-desired ones (e.g. Feldman et al., 2002; Gong et al., 2021; Wassermann et al., 2017).

The findings of this study offer some constructive implications for manufacturing companies and human resource managers. The research reveals that the employees who perceive themselves as overqualified, it is highly likely that they will present higher levels of work-related boredom, and therefore higher intentions to leave from the organization. Yet, it is known that work-related boredom is negatively associated with the employee outcomes such as job satisfaction, organizational commitment and organizational citizenship behaviors and positively related to counterproductive work behaviors and turnover intention (e.g. Kass et al., 2001; Kim et al., 2019; Reijseger et al., 2013). As a consequence, the organizations need to alleviate this kind of negative employee outcomes.

According to the findings of this research, if the organization utilizes a HPWS, then this boundary condition can mitigate the relationships POQ-intention to leave (directly and indirectly) and POQ-work-related boredom. Thus, HRM practices such as recruitment and selection, compensation, appraisal, training and development, and job design most likely eliminate these detrimental effects of POQ in the workplace. Specifically, before an overqualified employee is hired, the recruiter could inform him/her about the employment conditions he/she will have to deal with and what can the organization offer to him/her in short and long term. This way, feelings such as being treated unfairly by the employer, which can lead to negative employee outcomes (i.e. work-related boredom and intention to leave), will be avoided (Erdogan et al., 2011).

Additionally, as it is well known, overqualified employees are not satisfied with their jobs' wages (Khan & Morrow, 1991). They believe that they are underpaid compared to what they offer to their job (e.g. more qualifications, high performance). As a consequence, HRM practitioners will have to recognize their added value by implementing pay-for-performance (van Dijk, Shantz, & Alfes, 2020). Bearing in mind that high performance is acknowledged and rewarded, the overqualified employees are more likely to execute their duties with greater willingness (i.e. less work-related boredom) and desire to remain at it (Erdogan & Bauer,

2011). Moreover, a practice which is highly connected to the compensation is the appraisal (Huselid, 1995). Through this practice, employees are evaluated for their performance and if they have achieved the expected goals, they are rewarded with praises and possibly with opportunities for promotion (Takeuchi et al., 2007). As such, they will probably have greater desire and more energy to work in order to prove that they are competent and own all these qualifications needed to acquire a higher position.

Furthermore, the organization must think carefully about how to keep them challenged and stimulated, so as to deteriorate the high levels of work related boredom and the intention to leave. To achieve this, the organization can provide training programs for the employees so as to improve the quality of them (Prieto & Santana, 2012) for their current working status as well as the future one (Posthuma, Campion, Masimova, & Campion, 2013). Also, Erdogan et al. (2011) propose to train employees in areas which will contribute in their personal growth, in order to be effective. Conclusively, through education and growth the employees may feel that the organization is indeed interested in them and that it prepares them for a higher position, which will fit their qualifications better.

Finally through the job designs, the organization can give higher autonomy to the employees, so that they will have the chance to use and practice their skills (Morrison, Cordery, Girardi, & Payne, 2005). One more method to relieve the negative employee outcomes could be job crafting with which employees will have the opportunity to cultivate their work in such a way that they will attach meaningfulness to it (Berg, Dutton, & Wrzesniewski, 2013). Moreover, HRM practitioners must offer realistic job previews and the job descriptions must clarify in detail the duties of every single job position (Alfes, 2013), so as not create unfulfilled expectations, which will potentially lead to work related boredom (Gkorezis & Kastritsi, 2017). For this reason, the organizations should take into consideration the impact of all these practices and adopt the relevant HPWS, if they wish to be discharged from the particular negative consequences of the POQ.

6.3. Limitations and future research

As in any other study, in the present one as well, there are certain limitations that propose directions for future research. Firstly, the data were collected at a single point in time, as such a cross-sectional design was employed. Through this approach the causality of the relationships cannot be determined directly. Secondly, self-report questionnaires were collected from a single source, employees. Therefore, there is the chance that common method bias might come up. However, the present measurement model incorporated interaction effects. According to the scholars, in this case, CMV is likely attenuated (Evans, 1985; Siemsen, Roth, & Oliveira, 2010). Additionally, CLF and Harman test were conducted, which demonstrated that there is no issue of CMV. Nevertheless, the possibility of CMV existing cannot be completely excluded. Thirdly, as it was previously mentioned, the data were collected from a manufacturing company in Greece. Even though the findings of the research (except for the perceived HPWS, which have not yet been studied as moderator in similar relationships and the work-related boredom as mediator) comply with the results of other surveys, utilized in other contexts and countries (e.g. Andel et al., 2021; Harju et al., 2014; Lobene & Meade, 2013), it is possible that they cannot be generalized for other countries. To finish with, some employees have short tenure in the current organization. Thus, it is likely that they have not yet been given the appropriate opportunities to exercise their qualifications in practice. Therefore, they feel overqualified (Harari et al., 2017).

Based on the above limitations, this study illuminates many stimulating avenues for future research. For instance, future empirical research could employ a longitudinal or multi-source (i.e. supervisors) study, thereby providing robust causal relationships of the present hypotheses and ruling out the issues of CMV as much as possible. Another interesting avenue is to investigate the present measurement model in different sectors and countries with similar economic and financial crises, so as to reinforce the generalizability of the results. Furthermore, this study is based on POQ. A promising avenue, therefore, would be to use objective measures for overqualification, to determine if in this case the present findings are valid. Last but not least, future research should explore the moderating role of perceived HPWS in the relationship between POQ and employees' emotions, attitudes and behaviors such as anger, job satisfaction and job performance.

7. Conclusion

In summary, this study set out to investigate the relationship between POQ and employees' intention to leave. For this reason, work-related boredom and perceived HPWS were utilized as a mediating and a moderating mechanism respectively, creating a moderated mediation model. Thus, data from Greek manufacturing company demonstrated that POQ is indirectly linked with the intention to leave, through work-related boredom. Moreover, POQ-intention to leave (directly and indirectly) and POQ-work-related boredom relationships are dependent upon perceived HPWS. Generally, there is an important void in the overqualification literature regarding the impact of the HRM practices on the negative effects of POQ. Given that overqualification is an important and global topic which influences at a great extent the employee's outcomes, and in turn, the organization's as a whole, it is hoped that future empirical studies will advance the present findings and especially the determining contribution of the HRM in dealing with this phenomenon.

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Appendix

Questionnaire



Bochoridou P. Anna

Postgraduate student in Human Resources Management Program of the
University of Macedonia

QUESTIONNAIRE

We kindly ask you to offer a few minutes of your time to complete the following questionnaire. The research is conducted in the context of writing my dissertation for the Human Resources Management Postgraduate Program. Its subject concerns the impact of Human Resources practices on the organizational outcomes. We kindly ask you to answer honestly in all questions, bearing in mind that there are no wrong or right answers.

Your answers are highly confidential and under no circumstances will they be used for other purposes, beyond the research. The questionnaire will remain anonymous, so there is no way these answers can be connected with particular people or businesses.

Thank you for your kind intention to participate!

September 2021

DEMOGRAPHICS

Please complete the following information by putting an (x) in the corresponding box.

Personal Information

1. Sex

Male

☐

Female

☐

2. Age

3. Educational level

High school/Lyceum diploma

☐

Technical Institution's degree

☐

University's degree

☐

Master's degree

☐

Other: _____

Occupation

4. Employment status:

Permanent position

☐

Contract staff

☐

Trainee

☐

Other

5. Years of working experience

____ years

6. Years of working experience in the current business

____ years

Please circle the number corresponding to the degree of agreement/disagreement in the following statements regarding the applied Human Resources practices in the business you are currently employed.

Recruitment and selection	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The recruitment and selection processes in this organization are impartial	1	2	3	4	5
Favoritism is not evident in any of the recruitment decisions made in this organization	1	2	3	4	5
Interview panels are used during the recruitment and selection process in this unit	1	2	3	4	5
All appointments in this unit are based on merit (i.e. the best person for the job is selected regardless of his/her personal characteristics)	1	2	3	4	5
Only the best people are hired to work in this unit	1	2	3	4	5
Compensation	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Employees in this organization receive monetary rewards based on their individual performance	1	2	3	4	5
Employees in this organization receive monetary rewards based on their group performance	1	2	3	4	5
Employees in this organization receive monetary rewards based on the organizational performance	1	2	3	4	5
Our company's pay system reflects employees' contribution to the company	1	2	3	4	5
Appraisal	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Performance is more often measured with objective quantifiable results	1	2	3	4	5
Performance appraisals are based on objective quantifiable results	1	2	3	4	5
Employee appraisals emphasize long term and group-based achievement	1	2	3	4	5

Training and development	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Training is continuous at my work	1	2	3	4	5
Training programs are comprehensive at my work	1	2	3	4	5
Training programs strive to develop firm-specific skills and knowledge	1	2	3	4	5
The training programs emphasize on-the-job experiences	1	2	3	4	5

Job design	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The duties of this job are clearly defined	1	2	3	4	5
This job has an up-to-date job description	1	2	3	4	5
The job description for this job contains all of the duties performed by individual employees	1	2	3	4	5
The actual job duties are shaped more by the employee than by a specific job description	1	2	3	4	5

Please circle the number corresponding to the degree of agreement/disagreement with the following statements.

Intention to leave	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I often think of quitting the organization	1	2	3	4	5
I think of searching for another position with another organization	1	2	3	4	5
I often think of leaving the organization within the next year	1	2	3	4	5

Overqualification	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
My job requires less education than I have	1	2	3	4	5
The work experience that I have is not necessary to be successful on this job	1	2	3	4	5
I have job skills that are not required for this job	1	2	3	4	5
Someone with less education than myself could perform well on my job	1	2	3	4	5
My previous training is not being fully utilized on this job	1	2	3	4	5
I have a lot of knowledge that I do not need in order to do my job	1	2	3	4	5
My education level is above the education level required by my job	1	2	3	4	5
Someone with less work experience than myself could do my job just as well	1	2	3	4	5
I have more abilities than I need in order to do my job	1	2	3	4	5

Please circle the number corresponding to the degree of frequency the following statements occur.

Work boredom	Never	Rarely	Sometimes	Often	Always
I think my work is boring	1	2	3	4	5
There are long periods or boredom on my job	1	2	3	4	5
My job goes by slowly	1	2	3	4	5
I often get bored with my work	1	2	3	4	5
The time seems to go by slowly when I'm at work	1	2	3	4	5

We kindly thank you for the time you devoted to participate in our research!