

The Relationship Between Psychological Capital, Job Crafting and Work Engagement of Academic Staff at South African Universities

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Abstract

During the Covid-19 pandemic, academic employees were faced with a rapid transition to remote online teaching with resultant effect on their levels of work engagement. Examining the role of job crafting on the relationship between psychological capital and work engagement in the academic setting can provide important information to encourage job crafting behaviours within the university as a means to maintain engagement.

An online survey measuring psychological capital, job crafting and work engagement was used to gather data from $n = 156$ academics across various institutions in South Africa. The data was analysed using correlational analysis as well as Process macro to identify the indirect effect of job crafting. Results indicate a positive relationship between PsyCap and work engagement. Only two job crafting dimensions namely, increasing challenging job demands and increasing structural resources, successfully mediated the relationship between PsyCap and work engagement of academics. The results suggest that even with shifting work duties and changes in work environments, individuals with high levels of PsyCap tend to have higher levels of engagement. Adding challenges and tapping into structural resources through job crafting can further mediate improved engagement of academics.

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1. Introduction

1.1. Background

Academics face numerous challenges that could impact their ability to remain engaged. Dhanpat et al. (2019) attempted to identify a six-factor model that describes certain demands and stressors that academics face in their world of work. These six factors are workload, higher education unrest, change management, decolonisation, online teaching and learning, and psychological safety (Dhanpat et al., 2018; Naidoo-Chetty & Du Plessis, 2021). The Covid-19 pandemic's impact on the work sector amplified these already existing stressors for academics. In this ever-present changing work landscape, understanding how individuals stay engaged in their work and how these changes impact their engagement levels is crucial. Al-Jubari (2014) conducted a qualitative study on work engagement amongst academic staff and found that academics' engagement levels are generally high. However, institutions should try to investigate ways to help improve the satisfaction levels of academics which could, in turn, lead to the employees being more engaged in their work. Ludviga and Kalvina (2016) indicated that engaged employees tend to believe in their organisation, have a desire to work to make things better, have a better understanding of the business context, are respectful and helpful to colleagues who are willing to go “the extra mile” and keep up to date with developments in their field. Whilst engagement is a major research area in all professions, so are the resources that employees rely on to sustain themselves.

Psychological capital (PsyCap) has been established as a personal resource that counteracts the adverse effects of emotionally draining professions (Virgă et al., 2020). Personal resources, such as PsyCap, are essential in equipping professionals to handle demanding jobs and protect their well-being. Furthermore, various studies have confirmed the influence of PsyCap on work engagement (Kotze, 2018; Sutrisno & Parahyanti, 2018). Kotze (2018) further stated that employee satisfaction with job resources, such as social relations, work organisation and the work task itself, has a positive impact on the dimensions of work engagement which seems to support some of the findings made by Al-Jubari (2014).

Bakker and Albrecht (2018) reported that another area of focus in work engagement includes interventions (such as job crafting) that enhance employee work engagement levels. Petrou et al. (2016) described job crafting as the mechanism by which employees alter their task boundaries (adding or removing job tasks), cognitive boundaries (how employees view their work and work relations) and relational boundaries (their relationships with co-workers) in relation to their job. Job crafting can be seen as a mechanism in which employees attempt to increase task variety or change relations at work and how employees deal with job resources (Kamaeswari & Mohideen, 2016). This focus is on how employees influence their own levels of engagement through job crafting (Bakker & Albrecht, 2018). Tims et al. (2012) highlighted that numerous professional positions, such as teachers, general

practitioners and consultants, allow for job crafting. One could therefore argue that academics, as knowledge workers, may also benefit from engaging in job crafting. Some advantages of job crafting are that it enables individuals to experience more meaning in their work which, in turn, translates to them being more productive, it increases employee commitment to the organisation and their engagement levels within their work; these employees are also known to exhibit organisational citizenship behaviour (Kamaeswari, 2017). In turn, managers benefit from processes where employees are already engaged which leads to an increase in employee well-being (Kamaeswari, 2017).

As job demands increase, employees' physiological and psychological resources become increasingly drained. If attention is not given to these factors, it will lead to an increase in negative work outcomes, especially if resources are unavailable for the individuals (Chen et al., 2017). Therefore, understanding how employees manage their increasing job demands and are able to reduce or eliminate job demands that are hindering them has gained further importance.

1.2. Problem Statement

Bakker and Demerouti (2007) identified the positive effect that both job and personal resources have on work engagement and how work engagement, in turn, positively reinforces these resources. However, whilst work engagement has become a popular field of interest for academics, there has been less focus on how working individuals who use job crafting become engaged in their work. Covid-19 also forced many employees to shift to remote work and having to deal with added challenges of managing their home life in a pandemic, have resulted in researchers interested in how this influenced the employee's engagement levels. Conducted research (Pass & Ridgway, 2022) showed that the move to remote work did influence work engagement.

Though a link between PsyCap and work engagement has been thoroughly researched and reported on, the Covid-19 pandemic has impacted numerous employees and exposed them to job demands that they may not have experienced before or experienced in such an intense way. Even for those with high levels of self-efficacy, optimism, hope and resilience (the dimensions of PsyCap), these new challenges could serve as a barrier that could, in turn, impact their level of engagement. For academics, new demands such as shifting to online learning, course and assessment changes, dealing with added pressure from students, as well as home life challenges, all serve as potential threats that could impact their ability to remain engaged in their work. Whilst job crafting remains a way in which these individuals could buffer the effects of these potential threats, failing to find a way to deal with or decrease job demands may lead to individuals depleting their personal resources (such as PsyCap). In line with the Conservation of Resources Theory (Hobfoll, 1981), this may mean that they are becoming less engaged, and thus, this could potentially impact their productivity and well-being.

1.3. Research objectives

The main focus of this study will therefore be to examine the effect that the four job crafting dimensions have on the relationship between the PsyCap and work engagement levels of academics. The intent is to investigate whether academics can and do craft their job and what impact it may have on their ability to remain engaged in their work.

The objectives of this study are:

- To determine the relationship between PsyCap and work engagement.
- To determine the indirect effect of job crafting behaviours (that is, decreasing hindering job demands, increasing social resources, increasing structural resources, increasing challenging job demands) on the relationship between PsyCap and work engagement levels.

2. Literature Review

2.1 Theoretical Framework: The Job Demands-Resources Model

The Job Demands-Resources model (JD-R model), highlighted by Bakker and Demerouti (2008), was used as a framework for the current study. According to Schaufeli and Taris (2013), the current version of the JD-R model proposes that high job demands lead to strain, whilst high resources lead to increased motivation and higher productivity. Each of the variables that form the basis of the current study fall directly in the scope of the JD-R model. The model also provides support for suggesting that relationships exist between the three main variables (PsyCap, work engagement and job crafting) that were investigated in the current study.

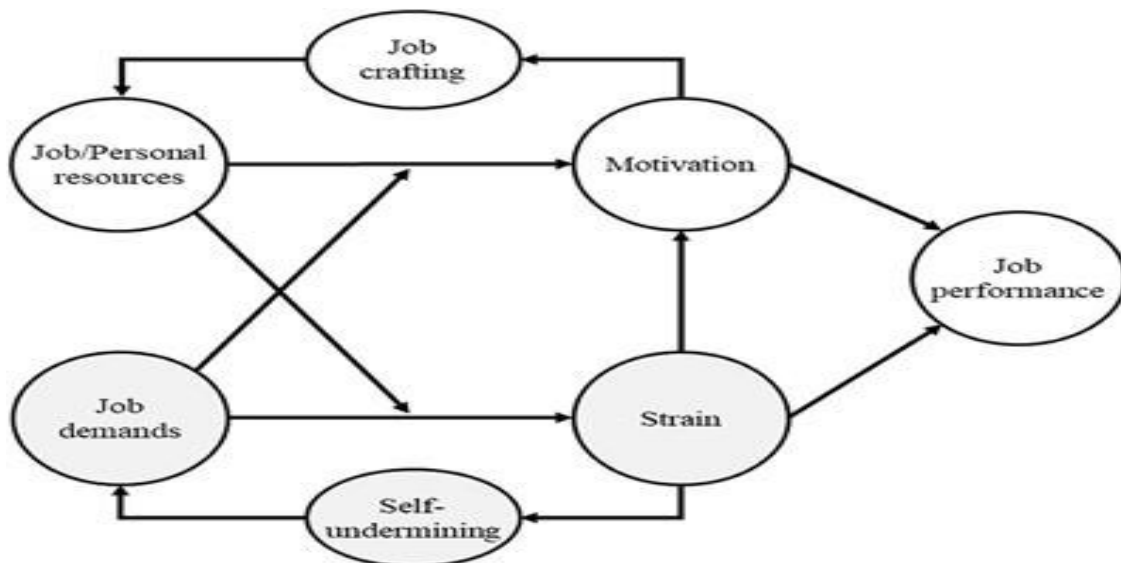


Figure 1: Job Demands-Resources Model (JD-R)

Source: Demerouti. (2017).

According to Bakker and Demerouti (2017), Job Demands-Resources theory proposes that all job characteristics can be classified into two main categories: job demands and job resources, each having unique properties and predictive values. *Job demands* can be seen as work aspects that refer to the energy spent to do work tasks and addresses factors such as workload, complex tasks and conflict. Workload and complexity can be seen as challenging job demands that push employees to do well in their work whilst conflict can be seen as hindering job demand. *Job resources* are the tools related to work that aid employees in dealing with these job demands and help with goal achievement (Bakker & Demerouti, 2018). Jantti (2018) further stated that job demands refer to physical, psychological, social or organisational aspects of the job that require physical or/and psychological effort from the employees.

The JD-R theory proposes that employees who experience work engagement (for example, high levels of energy, dedication and absorption) proactively try to optimise their job demands and resources through job crafting (Bakker & de Vries, 2021). In contrast, employees who experience job strain will start to undermine their own functioning at work (Bakker & Wang, 2019). The JD-R theory further states, as outlined by Bakker and Demerouti (2018), that employees who are motivated by their work are likely to engage in job crafting. This, in turn, could lead to higher levels of job and personal resources (such as PsyCap) which, in turn, could increase employee motivation and engagement even more.

Bakker and Demerouti (2018) placed further emphasis on the research conducted by Tims et al. (2012) and Vogt et al. (2015), which provided support that corresponds with what the JD-R theory suggests in terms of job crafting. Specifically, that it can cause an increase in job resources (including personal resources such as PsyCap) and indirectly influence work engagement. Kotze (2018) also found evidence that employees' satisfaction with job resources positively influenced work engagement in terms of vigour and dedication. In addition, personal resources, such as PsyCap, positively influenced individuals' satisfaction with job resources and partially mediated the influence on vigour and dedication (Kotze, 2018).

2.2 Conceptualising psychological capital

Luthans (2002) defined psychological capital (PsyCap) as an individual's positive psychological developmental state which is generally characterised by making positive attributions, having confidence in one's abilities, and having resilience which allows individuals to attain success as well as being able to redirect career paths. Psychological capital can therefore be seen as being made up of certain resources, such as self-efficacy and optimism, that meet the criteria for positive organisational behaviour. According to Luthans and Youssef-Morgan (2017), PsyCap integrates four positive psychological resources namely, hope, self-efficacy, resilience and optimism. Hope can be defined as the individual's willpower to have positive goals and expectations. It also includes an individual finding other or alternative paths to cope with expectations should they not happen the way the individual

desires (Grobler & Joubert, 2018). Optimism is referred to an individual's anticipation of a desirable outcome (Laschinger & Nosko, 2015). Self-efficacy is an individual's confidence level in their ability to establish a course of action and to find a level of motivation needed to implement and complete certain tasks (Grobler & Joubert, 2018). Luthans et al. (2007) defined resilience as the ability to bounce back to achieve success when facing or having faced some form of problem or difficulty.

2.3 Conceptualising job crafting

Wrzesniewski and Dutton (2001) and Zito et al. (2019) purported that job crafting was introduced to describe the process in which employees adapt their jobs to meet their specific needs and that it is a concept that focuses on employee job design. Berg et al. (2008) shared similar views citing that job crafting focuses on employee job design where employees modify aspects of their jobs to improve the fit between the characteristics of the job and their own needs.

Tims and Bakker (2010) defined job crafting in terms of what it means for employees' job-based behaviour. They viewed job crafting as a term that refers to an individual's self-motivated behaviour that alters their work tasks and the boundaries of the work relationships to align their interests, motivations and passion with their job. According to Tims et al. (2012), job crafting involves reconstructing or re-organising work content, work relationships and design, as well as how one goes about doing the work with the aim of getting a better sense of the work and one's workplace identity. Based on the JD-R model, four dimensions of job crafting are: increasing structural job resources, increasing social resources, increasing challenging job demands and decreasing hindering job demands (Tims et al., 2012).

2.3.1 Increasing Social Job Resources

Increasing social job resources refers to instances where employees seek guidance, opinions and feedback from others such as superiors' subordinates and peers. They do this to build up a social support network for themselves to help improve their level of performance (Siddaq, 2015). Zito et al. (2019) further defined this dimension as an employee's ability to search for support from supervisors or colleagues or seek an opportunity for coaching, create opportunities for professional development and autonomy. Both Siddaq (2015) and Zito et al. (2019) argued that this dimension, in particular, falls within the job resource sector and deals with aiding employees in achieving their goals. For academic staff members, this could include aspects such as seeking advice or mentorship from a more senior lecturer who has experience in a specific module, communicating and engaging with support staff such as tutors and teaching assistants to help build a strong support network, and making use of support systems such as counselling services if pressure builds.

2.3.2 Increasing Challenging Job Demands

Challenging demands refer to job demands that require extra effort. However, despite the extra effort needed, employees tend to react positively to them. Employees see these demands as leading to personal growth (Tims et al., 2012). Siddaq (2015) referred to this dimension as employees trying to avoid boredom in their jobs and seeking to broaden their scope. This included taking on more responsibilities and taking an interest in new work-related developments. Zito et al. (2019) similarly defined this dimension; challenges that employees had to overcome to learn and achieve their goals. For academic staff members, this may include actions such as engaging in novel, interdisciplinary research, exploring teaching at post-graduate levels, improving their qualifications, teaching a new module and exploring new teaching modes (online learning).

2.3.3 Decreasing Hindering Job Demands

Hindering job demands refer to stressful demands that hinder job growth. Employees tend to withstand these demands by occasionally investing more resources (LePine et al., 2005). Siddaq (2015) found that this dimension of job crafting refers to when employees attempt to avoid doing tasks that they feel are physically or psychologically draining. These include aspects such as avoiding working long hours, ignoring individuals who affect them emotionally and avoiding making complicated decisions. Similarly, Zito et al. (2019) also defined decreasing hindering job demands as individuals trying to decrease tasks or demands that impede their personal growth. Both increasing challenging job demands and decreasing challenging hindering job demands, according to Tims et al. (2012), deal with specific job demands that require physical and psychological effort from employees. For academic staff members, this could include aspects such as delegating repetitive or tiresome tasks to support staff such as teaching assistants, changing the module structure to be more efficient and using more updated modes to mark and assess students.

2.3.4 Increasing Structural Resources

This occurs when employees strive to enhance structural resources such as seeking more autonomy at work, trying to increase variety in their tasks or resources and seeking more responsibility in their jobs (Siddaq, 2015). Zito et al. (2019) agreed with Siddaq (2015) that this dimension referred to individuals seeking professional development and autonomy opportunities. Siddaq (2015) further elaborated that employees tend to focus on increasing structural resources at the individual and organisational levels. By increasing the structural resources, employees seek to find a way to improve their performance and grow as working individuals. Tims et al. (2012) highlighted that this dimension, similar to the dimension of increasing social resources, dealt with the resources that individuals used to reach their goals. For academic staff members, this could include aspects such as changing how the module is delivered to the student (variety), adjusting or adding additional components to modules that incorporate what is

currently going on in the world and changing tests and assignments from how it was done in the previous year.

2.4 Conceptualising work engagement

Work engagement could be defined as being a positive, fulfilling, work-related state of mind and an effective motivational state. This state could be seen as an individual's level of fulfilment and could be characterised through three main dimensions: vigour, dedication and absorption. Schaufeli et al. (2002) referred to vigour as the worker's state of mind characterised by certain energy levels and willingness to put more effort into their work; dedication refers to the worker's enthusiasm for their work which is triggered by the feeling that one's work has meaning; and absorption as an individual's engrossment with their work, enjoying it to the point that they do not notice time going by. The construct of work engagement could therefore be seen as a popular domain in positive psychology and deals with enhancing employees' experience at work. This is a desirable state in which the employee feels a sense of purpose, involvement, passion and enthusiasm (Bakker & Demerouti, 2008; Coetzee & De Villiers, 2010; Salanova et al., 2002).

Interest in studying and accessing work engagement has increased in recent years, particularly in the fields of psychology, occupational medicine and management due to the relationship between work engagement and employee performance (Kulikowski, 2019; Reijseget et al., 2016).

2.5 PsyCap, job crafting and work engagement in the academic environment

Irfan and Qauder's (2021) study, which consisted of knowledge workers from both health care and university, shed light on how resourceful and challenging jobs could promote job crafting. According to the researchers, resourceful and challenging jobs create an active work environment that provides job discretion and opportunities for learning and development which serves to motivate and, therefore, stimulate job crafting behaviours. The results of their study also confirmed a positive and significant relationship between resourceful and challenging jobs and job crafting. They suggest that job crafting is a continuous process; by crafting jobs, employees can continuously build their desired job and their personal resources. According to Irfan and Qauder (2021), this is in line with what the JD-R theory suggests; crafting jobs activates a cycle of resources, increases motivation, and work engagement.

Similarly, Shang (2022) who conducted a study on political academic teachers, found that job crafting was positively related to work engagement. They argued that job crafting is essential to those working in the education sphere, and through job crafting, aspects such as work engagement can be maintained. Khan et al. (2018), Hussien (2018) and Dhanpat (2022) found similar results to those of Irfan and Qauder (2021) and Shang (2022). Their studies highlighted that job crafting could be positively linked to certain aspects such as work engagement, job satisfaction and work performance. In terms of psychological capital, Wardani and Anwar (2019) conducted a study on multi-institutional

organisations and found that psychological capital had a positive relationship with work engagement. Likewise, Ojo et al. (2021) provide further support highlighting the importance of personal resources. The former study found that PsyCap positively affected employees in higher education facilities by showcasing certain positive behaviours such as innovativeness. The latter suggested that personal resources aided in building an individual's resilience (a component of PsyCap) that would assist in enhancing work engagement during the Covid-19 pandemic. They further highlighted the important role that self-efficacy (another component of PsyCap) played in employee resilience. They argued that self-efficacy could help retain employees' heightened sense of productivity through engagement with their work. However, their study could only prove that a relationship between self-efficacy and work engagement existed and that resilience may not have impacted this relationship.

2.5.1 The Indirect Effect of Reducing Hindering Job Demands on the Relationship Between PsyCap and Work Engagement

Siddiqi (2015) conducted a study on service employees and analysed the relationship between work engagement and job crafting. They found that all dimensions of job crafting (increasing structural resources, decreasing hindering job demands, increasing social resources and increasing challenging job demands) lead to a slight increase in employees' work engagement. They argued that job crafting may offset de-motivating factors (by decreasing hindering job demands) and enable motivation to take place (by increasing job resources). Further examining the relationship between job crafting and work engagement, De Beer et al. (2016) found that decreasing job demands (an element of job crafting) did not have a significant relationship with work engagement.

According to De Beer et al. (2016), the JD-R model does not present a direct relationship between job demands (for example, workload) and work engagement. Therefore, their opinion is that this finding is in line with other studies. For example, Shin et al. (2018) found that in terms of PsyCap, job crafting dimensions, including decreasing hindering job demands, improved employee PsyCap levels. However, the researchers did note that decreasing hindering job demands could potentially impact work engagement negatively.

2.5.2 The Indirect Effect of Increasing Challenging Job Demands on the Relationship Between PsyCap and Work Engagement

De Beer et al. (2016) found that increasing challenging job demands has a significant positive relationship with work engagement. They stated that challenging job demands increase employee motivation and work engagement levels. Harju et al. (2016) also supported this finding and found that out of all the job crafting dimensions, increasing challenging job demands seem to yield the most benefits for employees regarding motivation and well-being. Baik et al. (2018) found that increasing challenging job demands may influence change-orientated behaviour but only through the mediating

effect of work engagement, suggesting that some form of relationship exists between this dimension of job crafting and work engagement.

Robledo et al. (2019) further stated that increasing challenging job demands positively correlate with work engagement and fully mediates the relationship between work engagement and job performance. They further stressed that increasing structural resources (allowing for self-learning and development activities) and increasing challenging job demands (allowing those development activities to be challenging) maximises the impact on work engagement which, in turn, maximises job performance. Likewise, in terms of PsyCap, Wingerden and Poell (2019) tested their hypothesised theory that a relationship existed between job crafting and employee resilience through bootstrapping analysis. The outcomes of their study revealed that both work engagement and job crafting fully mediated the relationship between meaningful work and teachers' resilience.

2.5.3 The Indirect Effect of Increasing Job Resources (Structural and Social) on the Relationship Between PsyCap and Work Engagement

Siddaq (2015) found that social job resources and allowing individuals to increase social support tended to have the biggest impact on employee work engagement. Demerouti, Bakker and Gever's (2015) study suggest that the more individuals seek resources at work (structural and social), the more engaged they are in their work and this leads them to flourish in life. De Beer et al. (2016) shared similar views to Demerouti et al. (2015) in that both increasing structural and social job resources has a significant positive impact on work engagement. They further stated that increasing social resources, such as coaching and providing support, is positively aligned with work engagement and when these resources are high, so are work engagement levels.

Studies have also suggested a relationship exists between PsyCap and increasing social resources. By building on social support and interaction, PsyCap levels could be increased and the same applies to the inverse. If social support and social resources are present, PsyCap levels of individuals will increase. If social support is provided at work, employees will craft their jobs to build on the social resources made available to them. In a work context, social resources fall within the elements of resources that employees could draw upon in their work (Kerksieck et al., 2019; Luo et al., 2021). In terms of structural resources, several researchers have identified a positive relationship between PsyCap and certain structural resources within the organisation, such as opportunities related to career development, adaptability and career searching opportunities (Georgiou et al., 2019; Di Maggio et al., 2021; Zyberaj et al., 2022). When conducting their study, Georgiou et al. (2019) found that employees who underwent training on developing their psychological capital could develop a heightened sense of perseverance and therefore be optimistic and search for jobs and tend to understand and apply themselves more in relation to job opportunities such as job applications and updating their resumes.

3. Research Methodology

The research design for this study was based on positivism which is the belief that scientific knowledge is a function of being verified through the accumulation of facts. Positivism relies on hypothetical deductive methods to verify hypotheses from which functional relationships can be derived (Konge, 2020). This quantitative research design is applicable to the current study because it focuses on determining specific relationships between two or more variables to get an overview of how these variables impact the larger population of academics in the workplace.

The objectives set out by the research study were achieved by using an ex-post facto correlation design. Sharma (2019) highlighted that an ex-post factor research design deals with analysing existing data that cannot be manipulated or controlled to see how it influences another variable. It also aids the researcher by being more flexible in terms of administration and less costly. Ex-post facto studies are also more economically feasible and less time-consuming (Sharma, 2019).

The current study comprised of full-time permanent academic staff members employed at various universities throughout South Africa. South Africa has a total of 26 Universities, according to Public universities of South Africa (n.d.), of which only 7 were used for the sample of the current study. These seven universities were included based on accessibility and responsiveness for providing ethical and or gateway clearance. Universities were added until a sufficient number of responses were received.

The total population of permanent academics in South Africa was recorded as 19901 in 2019 (Cloete et al., 2022). Whilst this is not an exact representation of the population in 2022, it provides an estimation of the population of academics.

Through convenience sampling, an email with a link was sent to all permanent academic staff members employed at the seven institutions through the official communication channels of the respective university. One-hundred-and-seventy-one participants completed the survey, but only 156 were usable in terms of the criterion, namely had to be full-time academics. Whilst the sample size is sufficient for statistical analysis (Bullen, n.d.), the generalisability of the sample to the population is 377 for a population of 20000 (Sekaren, 2003); therefore, the results from the current sample of 156 cannot be generalised.

The sample comprised of 59% females, 40.4% males and 0.6% did not specify their gender. The majority of the respondents were married (69.2%) whilst 23.7% were single. Most of the respondents were lecturers (35.9%) and senior lecturers (25.6%). The majority of the respondents were from the Economic and Management Sciences Faculty (18.6%) with the second largest response rate from the Natural Science Faculty (17.9%).

A short biographical questionnaire was developed to collect information to describe the sample. It also included a question to eliminate any participant who did not meet the criteria, namely, to be a full-time academic.

The Psychological Capital Questionnaire (24 items) was used to measure the PsyCap levels of the respondents. The questionnaire was used as a second-order construct, where the total score for PsyCap was used for analysis. For each item, respondents had to respond on a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree) (Ekermans & Herbert, 2013). A sample item would be: "I can think of many ways to reach my current goals." Avey et al. (2007) reported an 0.89 reliability for the PsyCap 24-item Questionnaire, whilst the reliability of the subscales was 0.85 (self-efficacy), 0.80 (hope), 0.79 (optimism) and, 0.72 (resilience). Diedricks et al. (2019) conducted a study on the psychological capital levels of academics in South Africa and reported that the reliability met the 0.70 cutoff point.

The Utrecht Work Engagement Scale (17 items) was used to measure individuals' work engagement levels according to three dimensions namely, vigour, dedication, and absorption (Bruin et al., 2013). The UWES is scored on a seven-point frequency rating scale, ranging from 0 (never) to 6 (always). For the purpose of this study, the scale was treated as uni-dimensional by calculating a total score on work engagement. Examples of items include: "At my work, I feel bursting with energy"; "I find the work that I do full of meaning and purpose"; and "Time flies when I'm working." Other studies also reported Cronbach alphas in excess of 0.90 (Maake et al., 2021; Musanze & Mayende, 2020).

Tims, Bakker and Dirk's Job Crafting Scale (21 items) was used to measure the level of job crafting the respondents engaged in. Four dimensions, namely increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands (Tims et al., 2012) were tested. Items are measured on a 5-point Likert scale ranging from never (1) to seldom (2), regularly (3), often (4) and very often (5). An example for measuring increasing structural resources is "I try to develop my capabilities." An example for measuring decreasing hindering job demands is "I make sure that my work is mentally less intense." An example for the sub-dimension increasing social resources is "I ask others for feedback on my job performance." Lastly, an example for measuring increasing challenging job demands is "If there are new developments, I am one of the first to learn about them and try them out." In a study conducted in South Africa, the Cronbach alpha for all the dimensions of the scale was above 0.70 (De Beer et al., 2016). Their study further outlined that the scale showed acceptable levels of discriminant and criterion validity as well as test-retest reliability. In terms of test-retest reliability, they found that each dimension scored higher than the extensive criterion of 0.40 (increasing challenging job demands, $r=.77$; decreasing social job demands, $r=.49$; increasing social job resources, $r=.55$; increasing quantitative job demands, $r=.60$; Decreasing hindering job demands, $r=.47$). In another South African study conducted by Thomas et al. (2020), Cronbach alphas

were reported as follows: Increasing social resources, $r=.78$; Increasing structural resources, $r=.71$; Increasing challenging job demands, $r=.69$ and Decreasing hindering job demands, $r=.73$.

Item analyses were performed to identify any poor items in the three questionnaires used in this research. This was conducted through SPSS (version 28) through the reliability function built into the software. In addition, a correlational analysis and PROCESS macro to compute mediation were used to test the hypotheses (Hayes, 2012).

The following hypotheses were formulated based on the objectives:

- H₁: There is a statistically significant direct relationship between PsyCap and work engagement.
- H₂: The job crafting dimension, decreasing hindering job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H₃: The job crafting dimension, increasing challenging job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H₄: The job crafting dimension, increasing structural job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H₅: The job crafting dimension, increasing social job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

3.1 Ethics

Permission and ethical clearance were granted from each institution to carry out the research. Prior to completing the survey, respondents completed a consent form which was an indication of their willingness to participate in the research. To protect the anonymity of the institutions and respondents' confidentiality, no identifying information was requested. Respondents were also informed that they could withdraw at any time without any consequences and that information provided would only be used for research purposes.

4. Results and Findings

4.1 Results of Descriptive Statistics and Correlation Analysis

Table 1: Descriptive Statistics and Correlations

Variable	Mean	SD	α	1	2	3	4	5	6
1.Work Engagement	4.1882	.84614	.924	1	.629**	.535**	.189*	.049	.531**
2.Psychological Capital	4.6004	.65175	.916		1	.523**	.184*	-.023	.415**
3.Increasing structural job resources	3.1103	.66828	.843			1	.259**	.223**	.562**
4.Increasing social job resources	1.4782	.84229	.849				1	.403**	.254**
5. Decreasing hindering job demands	1.7447	.78595	.824					1	.054
6. Increasing challenging job demands	2.4897	.81638	.819						1

With regard to mean responses from the work engagement measure in relation to the norm groups outlined by Schaufeli and Bakker (2004), the responses of the current survey (as reported in Table 1) scored within the average category. The average category falls within the mean score range of 3.07 – 4.66. The current research responses indicated a mean value of 4.1882, which falls within the average range.

Reliability analysis was performed on all three questionnaires and indicated in Table 1. For the UWES, the Cronbach alpha was .924 and for the Psychological Capital Questionnaire the Cronbach alpha was .916. For the Job Crafting Scale, the Cronbach alpha for each of the dimensions was as follows: Increasing structural job resources (.843), Increasing social job resources (.849), Decreasing hindering job demands (.824) and Increasing challenging job demands (.819).

4.2 Relationship between Psychological Capital and Work Engagement

The results of the current research study confirm that a positive relationship exists between psychological capital (PsyCap) and work engagement ($r = .629$; $p < .01$), as reported in Table 1. These results are in line with a number of research studies that were conducted to understand the relationship between these variables (Dhawan & Maini, 2021; Rizana et al., 2022).

Dhawan and Maini's (2021) found that results from their study on college teachers, indicated a significant relationship between psychological capital and college teachers work engagement levels. Giancaspro et al. (2022) also found similar results in their study suggesting that employees who tend to

have higher PsyCap levels generally tended to display higher levels of work engagement than those who did not. PsyCap has widely been considered a valuable resource in many positive work-related outcomes such as work engagement. Giancaspro et al. (2022) highlighted that, just as the JD-R model illustrates, personal resources (such as PsyCap) can potentially motivate and guide employees which, in turn, can lead to higher levels of work engagement. Amongst academics it seems that if PsyCap levels are high, their work engagement levels will also increase. It can be concluded that literature findings seem to concur with the results of the current study and those of several researchers (Dhawan & Maini, 2021; Giancaspro et al., 2021). Hypothesis 1 is accepted.

4.3 The Effect of Job Crafting Dimensions on the Relationship Between PsyCap and Work Engagement

To analyse for the indirect effect that job crafting has on the relationship between PsyCap and work engagement, bootstrapping analysis was used following the PROCESS macro method from Preacher and Hayes (Hayes, 2022). A series of analyses were conducted to test hypotheses 2-5, using Model 4 of the PROCESS macro for simple mediation. The results are presented in Table 2 and discussed in the following sections.

Table 2: Summary of Indirect Effect Results (n =156)

Dimension	Beta	Effect	BSE	LLCI	ULCI
Increasing social resources	.0757	.0139	.0136	-.0096	.0445
Increasing structural resources	.2836	.1484	.0443	.0689	.2418
Decreasing hindering job demands	.0631	-.0015	.0083	.0125	-.0231
Increasing challenging job demands	.3265	.1355	.0353	.0669	.2038

Note. BSE = Bootstrap standardised effects; LLCI = Lower level confidence interval; ULCI = Upper confidence interval. Standardised coefficients for each dimension were used as the beta values.

4.3.1 Increasing Job Resources (Structural and Social)

The mediation results for the indirect effect increasing structural resources have on the relationship between PsyCap and work engagement showed that the lower LLCI did not pass through 0 when reaching the ULCI ($\beta = 0.2836 (.0689, .2418)$) as shown in Table 2. Therefore, one can assume that increasing structural resources has a significant indirect effect on mediating the relationship between PsyCap and work engagement, thereby accepting hypothesis 4. Based on this finding, it is suggested that individuals who increased their structural resources tended to build their PsyCap levels which, in turn, influenced their work engagement levels. These findings correspond with those of Demerouti et al. (2015) and Siddaq (2015). The researchers are of the opinion that individuals who actively seek out to increase their structural based resources, such as trying new tasks or opportunities, also saw an increase in their work engagement levels. However, a study conducted by Hussein and Amiruddin (2020) found that increasing structural resources had no effect on employees' work engagement.

Hussein and Amiruddin (2020) insinuated that this could be due to the fact that job crafting is seen as a behaviour that occurs daily and regularly and potentially needs to be assessed over time.

Contrary to the findings of Harju et al.'s. (2016) study, the results of the current study revealed that high levels of increasing structural job resources influenced employees work engagement levels. Harju et al. (2016) purported that positive outcomes such as work engagement, as a result of increasing job resources, may only be short lived. They cited several reasons for this namely, (i) that they could not find any substantial proof to suggest increasing structural resources (trying new tasks) predicted future work engagement and (ii) that highly educated employees may have the capabilities and motivation to increase their job resources (social and structural). They claimed that without long-term opportunities (challenges) in which employees can employ these resources, the potential benefits may go unharvested.

In terms of increasing social job resources, the findings of this research study did not find a significant mediating effect of social job resources in the relationship between PsyCap and work engagement, $\beta = 0.2836 (.0689,.2418)$). Hypothesis 5 is therefore rejected. The finding of this research study contradicts the findings of studies carried out by Hussein and Amiruddin (2020) and Kerksieck et al. (2019) who found that increasing social job resources tended to have a positive influence on both psychological capital and work engagement. Hussein and Amiruddin (2020) in particular, found that out of all the job crafting dimensions, only increasing social resources influenced work engagement levels of their participants. The difference in the findings of the current research study and that of Hussein and Amiruddin (2020) could be as a result of the influence of the pandemic and also the environment in which academic lecturers work. Based on this they may not actively have opportunities to build on and/or draw on social resources at work.

4.3.2 Decreasing Hinderling Job Demands

The current research findings suggest that decreasing hinderling job demands does not have a significant mediating effect on the relationship between PsyCap and work engagement (hypothesis 2 is rejected, $\beta = 0.631 (-.0231,.0125)$). This aligns with prior studies conducted by De Beer et al. (2016), Steenbergen et al. (2017) and Van Wingerden' et al. (2015). Van Wingerden et al.'s (2015) study found that teachers or educators did not succeed in decreasing their hinderling job demands. Likewise, their personal (PsyCap) resource, resilience, did not increase when the participants took part in the job crafting interventions they subjected the participants to. They further argued that in line with earlier research, decreasing hinderling job demands could potentially have a negative effect on work engagement or be unrelated. Steenbergen et al. (2017) conducted a study to determine if aspects such as work engagement, job resources and burnout changed over time. They found that the changing world of work and new ways in which individuals could work were beneficial in reducing mental demands

and workload. However, they found PsyCap levels had no influence on the transition to new ways of working.

Some research studies, such as those conducted by Dubbelt et al. (2019) and Sakuraya et al. (2017), did suggest that reducing hindering job demands could have an impact on both PsyCap and work engagement. Dubbelt et al. (2019) found that reducing hindering job demands had a negative relationship with certain work-based outcomes such as work engagement. Sakuraya et al. (2017) also found that a potential relationship existed between these variables but highlighted that a more longitudinal research study would be needed to verify the nature of that relationship.

4.3.3 Increasing Challenging Job Demands

The analysis of the indirect effect that increasing challenging job demands had on the relationship between PsyCap and work engagement showed that the lower LLCI did not pass through 0 when reaching the ULCI ($\beta = 0.3265 (.0669, .2038)$) as indicated in Table 2. Therefore, it can be assumed that increasing challenging job demands has a significant indirect effect on the relationship between PsyCap and work engagement. Hypothesis 3 is accepted. This seems to align with several researchers who suggested that individuals who had higher levels of PsyCap are better able to deal with challenging job demands (Fernando et al. 2020; Zamralita & Saraswati, 2021). The nature of the impact that increasing challenging job demands and PsyCap has on work engagement also aligns with the findings of the current research study. Research has suggested that academics, who have high levels of PsyCap and who engage in job crafting (including increasing challenging job demands), are shown to have higher levels of certain work-related conditions such as work engagement than those who possess low levels of PsyCap and who do not engage in job crafting (Gustitia, 2019; Ogbuanyaa & Chukwuedo, 2017).

Increasing challenges and job demands have placed greater levels of pressure on academics (Naidoo-Chetty & Du Plessis, 2021). Due to changes in the working environment, challenges faced through the pandemic and continuous pressure has resulted in academics seeing an increase in job demands (Kendrick, Hlatywayo & Pieters, 2020; Naidoo-Chetty & Du Plessis, 2021; Ogbuanyaa & Chukwuedo, 2017). Evidence from these studies suggests that as these job demands increase; it has an effect on other work related conditions such as work engagement which further corroborate the findings of the current research study. It seems that as challenging job demands increase and if employees have high levels of PsyCap resources, their work engagement levels will also increase as they are better suited to deal with the pressure and therefore, in turn, become more engaged with their work.

The nature of this research did not particularly highlight what challenging job demands lecturers are currently facing. Aspects such as a shift to online learning, remote work, adjusting to hybrid teaching modes, and lack of student-peer interaction could be seen as possible challenges that academics are

currently facing and therefore needing to adjust to. Rising to these new challenging job demands seemed to have a positive mediating effect between employees' PsyCap and work engagement levels with PsyCap and work engagement levels being higher in those that saw an increase in challenging job demands.

5. Managerial Recommendations

The current study contributes to literature by examining and providing further support for the notion that psychological capital and work engagement possess a positive relationship. The importance for understanding employee work engagement in a working environment has been studied extensively, but in the changing world of work where various other facets such as demanding job tasks and shifting responsibilities have become the norm, the need to keep examining this relationship remains present. For example, during Covid 19 the shift to online work was a major transition for employees including academics and assessing whether or not that had an influence on the engagement of the employees became important in order for organisations to gain a better idea of how to keep their staff engaged (Fernandez & Shaw, 2020). The shift to remote work changed academic staff's duties and responsibilities and also their access to resources which seemed to have had an impact on their engagement levels (Fernandez & Shaw, 2020; Moodley, 2022). However, studies have also shown maintaining high levels of PsyCap tended to benefit and raise engagement levels. These results are further supported by the results of this current research study. The results, suggest that even with shifting work duties and changes in work environments, if individuals have high levels of PsyCap, their work engagement would generally also be high. This suggests to academic institutions that PsyCap is a valuable personal resource employees can draw from and institutions need to further invest in certain programs to help individuals develop that resource. By making employees aware of this particular personal resource, institutions can help employees maintain work engagement levels even during difficult times and transitions.

In terms of job crafting, this study contributes to literature by identifying which dimensions of job crafting seem to affect the relationship between PsyCap and work engagement in the academic space. While research studies have provided evidence to suggest that job crafting positively influences the relationship between work engagement and PsyCap, conflicting results persist in terms of which dimensions influences the relationship. The current study highlighted that two dimensions mediated the relationship between PsyCap and work engagement. This both supports some research findings and differs from others. It is therefore recommended that further studies should be conducted on the various job crafting dimensions and their influences on work engagement. It is also recommended that institutions should invest in understanding what aspects related to job crafting they can allow in order for academics to boost their PsyCap and work engagement levels.

6. Conclusion, Limitations and Future research

Research has provided sufficient data to draw certain conclusions about the nature of the relationship between job crafting, PsyCap and work engagement. However, with conflicting reports and findings, there is still plenty of room for further research into the space of PsyCap and job crafting. Furthermore, as job crafting behaviours change over time, one can theorise, so can its effects and relationships.

Although much was done to ensure that an adequate and accurate representative sample could be drawn, there were several challenges that were faced in conducting this research study. The sample size of the present study is small and does not allow for generalisation of the findings to the academic population. Initially only one university was envisaged as the research population. However, the response rate continued to be low despite the questionnaire being disseminated a number of times. The researcher then extended the sample to include a number of universities across South Africa in an attempt to improve the response rate. Whilst the inclusion of other universities in the study is beneficial to a representative view from institutions across South Africa, the response rate still remained low.

Whilst this study provided some support to suggest that job crafting does successfully mediate the relationship between PsyCap and work engagement, it is clear that there are many different aspects that still need to be explored to gain a much more comprehensive understanding of the nature of job crafting.

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