Examining the effect of a play-at-work intervention on the organisational outcomes of work teams

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Comments

- This mini-dissertation followed the formatting guidelines of the postgraduate Industrial Psychology program of the North-West University, Potchefstroom Campus. Furthermore this dissertation's referencing style is according to the Publication Manual (6th edition) of the American Psychological Association (APA).
- This mini-dissertation includes three chapters, chapter one is an introduction to the research article, chapter 2 consist of the research article and chapter 3 includes the conclusions, limitations and recommendations.
- Chapter one consists of a revised research proposal.
- Each chapter has its own reference list.

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"I don't think of work as work and play as play. It's all living." - *Richard Branson*

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Declaration

I, **Liana Fourie**, hereby declare that "Examining the effect of a play-at-work intervention on the organisational outcomes of work teams" is my own work and that the opinions and views in this dissertation are those of the authors and relevant literature sources cited in the reference lists.

Furthermore I declare that the content if this mini-dissertation was not and will not be submitted for any other qualification at any other tertiary institution.

Liana Fourie

NOVEMBER 2017

Declaration of language editing

Dear Mr / Ms

Re: Language editing of dissertation: Examining the effect of a play-at-work intervention on the organisational outcomes of work teams

To whom it may concern

I hereby declare that I language edited the above-mentioned dissertation by Ms Liana Fourie (student number: 24217174).

Please feel free to contact me should you have any enquiries.

Kind regards

Cecile van Zyl

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Summary

Title: Examining the effect of a play-at-work intervention on organisational outcomes of work teams.

Keywords: Play at work, intervention, psychological detachment, work enjoyment, employee performance, workplace boredom, turnover intention.

Many organisations have reformed to a fun work environment by implementing play in the workplace, but organisations have jumped the gun by doing this as the effect of play in the workplace is still unknown. Therefor this study aimed to gain more insight regarding the effect of play at work on psychological detachment, work enjoyment, employee performance, workplace boredom and turnover intention levels of work teams. A play at work intervention was implemented in a tele-sales organisation in the North West province of South Africa and employees had the opportunity to participate in the intervention during their lunch break. A longitudinal, three-wave intervention study design was used with paper-and-pencil-based questionnaires to collect data from a non-probability purposive sample consisting of an experimental (n = 9) and a control group (n = 17). The independent sample t-test was utilised to test for statistical differences between the mean scores, and an effect size was calculated with Cohen's d value.

The results indicated that play at work can help employees to psychologically detach more during their lunch break, furthermore the results showed that the employees' team performance also increased when they participated in the play at work intervention. By relying on previous research regarding psychological detachment it can be stated that play at work can also have an effect on employees' workplace relationship conflicts, well-being, anxiety, role conflict, job demands and work engagement levels. As play at work increased the team performance of employees, play at work can also enhance the profitability of an organisation.

After the conclusions were drawn up practical implications, recommendations and limitations regarding this study were made.

Opsomming

Titel: Ondersoek die effek van ‘n speel by werk intervensie op organisasie uitkomstes van werk spanne.

Sleutelwoorde: Speel by werk, intervensie, sielkundige losbandigheid, werksgenot, werknemer prestasie, werksplekverveling, omsetbedoeling.

Baie organisasies het gereformeer na ‘n prettige werksomgewing deur speel te implementeer in die werksplek, maar organisasies het die wa voor die perde ingespan omdat die effek van speel by die werk nog onbekend is. Daarom het hierdie studie gemik om meer insig te kry aangaande die effek van speel by die werk op sielkundige losbandigheid, werksgenot, werknemer prestasie, werksplekverveling en omsetbedoeling van werk spanne. ‘n Speel by die werk intervensie was geimplementeer in ‘n tele-verkope organisasie in die Noord-Wes provinsie van Suid Afrika en werknemers het die geleentheid gehad om deel te neem aan die intervensie tydens hulle middagete breuk. ‘n Longitudinale, drie-golf intervensie studie ontwerp was gebruik met papier en potlood gebaseerde vraelyste om data in te samel van ‘n nie-waarskynlikheid doelgerigte steekproef wat bestaan het uit ‘n eksperimentele ($n = 9$) en ‘n kontrole groep ($n = 17$). Die onafhanklike steekproef t-toets was gebruik om te toets vir statistiese verskille tussen die gemiddelde tellings en die effek grootte was bepaal deur gebruik te maak van Cohen’se *d* waarde.

Die resultate het getoon dat speel by die werk werknemers kan help om meer sielkundig los te maak tydens hulle middagete breuke, verder het die resultate ook gewys dat die werknemers se spanprestatsie ook verbeter het toe hulle deelgeneem het aan die speel by werk intervensie. Deur staat te maak op vorige navorsing aangaande psigologiese losbandiheid kan dit gesê word dat speel by die werk ook ‘n effek kan hê op werknemers se vlakke van werkplekverhoudingskonflikte, welsyn, angs, rolkonflik, werksvereistes en werkverhoudingsvlakke. Aangesien speel by die werk die span prestasie verbeter het, kan dit ook die winsgewenheid van organisasies verbeter.

Nadat die gevolgtrekkings opgestel is, is praktiese implikasies, aanbevelings en beperkings ten opsigte van hierdie studie gemaak.

Chapter 1
Introduction

This mini-dissertation aimed to determine the effect of play at work as organisational intervention on levels of psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention within work teams. A play at work intervention was implemented in a telesales company and a longitudinal three-wave study design was used to collect data and to determine the changes that took place in the organisation due to the play at work intervention.

This chapter consists of an overview of the problem statement, research questions, expected contribution, research objectives and the research hypotheses. Following, is the research design that includes the research approach, literature review, research participants, measuring instruments, the intervention, research procedure, statistical analysis and the ethical considerations of this study. Lastly, a summary is provided of the chapters that will follow.

1.1 Problem statement

Traditionally, play and work were seen as opposites, but in the modern workplace of today, play seems to be intertwined with work (Butler, Olaison, Sliwa, Sørensen & Spoelstra, 2011; West, 2015). Many organisations have reformed to a fun and playful work environment. However, literature regarding the relationship between play and work is sparse, and consequently the effects of play on organisational outcomes are still relatively unknown (Perryer, Celestine, Scott-Ladd & Leighton, 2016; Sørensen & Spoelstra, 2012). Therefore, this study aimed to investigate the effect of play as organisational intervention on different workplace constructs.

West (2015) describes play as a behavioural approach that is characterised by play being voluntary, fun, frivolous, imaginative, and bound by structure or rules in some way. West further explains that almost any activity can be play and therefore play is very diverse. In recent years, the concept of play in the workplace has increasingly interested researchers. However, the majority of studies found in the literature studies the gamification of work, rather than playing at work. Gamification refers to the application of characteristics from games into non-gaming contexts (Perryer, Celestine, Scott-Ladd, & Leighton, 2016); in other words, gamification suggests that you modify the employees' work into the form of a game. Although this type of work design has proven to have a positive impact on the workplace (Kapp, 2012; Perryer et al., 2016), others revealed that employees do not enjoy being forced by management to play as fun and laughter are spontaneous

and not a package with the promise of results (Bolton & Houlihan, 2009). Similarly, West (2015) suggests that play should be done just for fun and for no other reason.

Play at work, rather than the gamification of work, refers to employees playing games just for fun, to enable them to psychologically detach from work and replenish their resources (Hülsheger, 2016), before they commence working again. Therefore, for the purpose of this study, play at work was used as a term to describe fun activities or games in the workplace separate from work. Although research on play at work is sparse, studies have shown that playing while at work creates a break in the workday, which may benefit employees' motivation, involvement, relationships and physical- and mental fitness (Sørensen & Spoelstra, 2012). It is therefore clear that play at work holds individual and organisational benefits. To elaborate on previous research, it is reasonable to expect that other organisational outcomes may also be affected by playing at work. Such organisational outcomes may include psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention.

Psychological detachment occurs when employees are given the opportunity to refrain from work-related activities and mentally disengage from work (Sonnentag & Fritz, 2015). Therefore, psychological detachment is to not be busy with job-related onuses such as receiving work-related phone calls or engaging in job-related activities. It also implies that employees stop thinking about their work or work-related problems and opportunities during non-work time, such as breaks and after work hours (Sonnentag & Fritz, 2007). When employees psychologically detach from work, it allows them to restore their energetic and affective resources (Sonnentag & Kühnel, 2016). Psychological detachment forms part of the recovery process that is based on the effort-recovery (E-R) model and the conservation of resources (COR) theory (Sonnentag & Fritz, 2007).

According to the E-R model, the demands of work require effort from the employee. These efforts again involve the adaptive physiological and psychological reactions of the individual, e.g. faster heart rate, higher blood pressure and fatigue (Pereira & Elfering, 2014). These stress-related reactions to work are momentary and completely reversible, but only after a certain time period in which the systems involved are not re-activated, enabling the psychophysiological systems to stabilise again and the recovery process to start (Sonnentag & Fritz, 2007). Therefore, normal recovery takes place after a short break from work and should be completed before the next day of work starts. However, constant experiences of stressful working conditions or chronic exposure to job demands can lead to continuous physiological and psychological load reactions, which again

lead to incomplete recovery (Pereira & Elfering, 2014; Sonnentag & Fritz, 2007). According to the COR theory, people strive to obtain, preserve and protect their resources; resources being external entities and internal attributes, stress again has an influence on these resources (Sonnentag & Fritz, 2007). Similarly, as in the E-R model, the COR theory also suggests that employees need to recover from work to restore lost resources (Hülsheger, 2016; Sonnentag & Fritz, 2007).

In the literature, a number of recovery strategies can be employed to allow employees to recover from their daily stressors during off-job time. These strategies include relaxation, mastery, control, meaning, affiliation and psychological detachment (Sonnentag & Fritz, 2007, 2015). The current study will focus on psychological detachment, since it is a prototypical recovery experience and research has shown that it has strong associations with employee outcomes (Sonnentag & Fritz, 2007) – also because a lack of psychological detachment will further escalate strain reactions and impair affective states and well-being (Sonnentag & Fritz, 2015; van Hooff, Geurts, Beckers & Kompier, 2011).

At first, researchers only investigated psychological detachment away from work during non-work time, but Sonnentag and Fritz (2015) explain that psychological detachment can occur, for example, during an employee's lunch break. However, empirical research to investigate the benefits of psychological detachment during short work-breaks is lacking. A study by Hülsheger (2016) revealed that employees felt most fatigued before their work break than during any other time of the day. This study examines psychological detachment during employees' lunch breaks, when they take part in the play-at-work intervention.

It is also reasonable to expect that an environment where employees are given the opportunity to play during breaks at work may lead to increased levels of work enjoyment. Research has shown that the workforce of today is remarkably different from previous generations, as they expect work to be fun and enjoyable (Romero & Pescosolido, 2008; West, 2015). Work enjoyment refers to employees' evaluations of the quality of their work lives (Peters, Poutsma, Van der Heijden, Bakker & de Bruijn, 2014). When employees enjoy their work, they experience their work as essentially interesting or pleasurable (Graves, Ruderman, Ohlott & Weber, 2012). According to research by Sanz-Vergel and Muñoz (2013), employees who detach during their break at work and who experience work enjoyment reported higher levels of vigour. These findings are in line with Trougakos and Hideg (2009) who found that enjoyable activities at work help employees to reload their affective resources, meaning that when employees experience positive events, such as fun at

work, they also experience positive emotions. This is also in line with the broaden-and-build theory that posits that the experiences of positive emotions can help increase a range of personal resources (Fredrickson, Cohn, Coffey, Pek & Finkel, 2008). Fredrickson and colleagues further explain that positive emotions experienced by employees expand their attention and thinking, allowing them to draw on higher-level connections and a range of ideas, and these expanded outlooks help employees to discover and build personal resources. From the above, it becomes clear that it is reasonable to expect that introducing play at work may lead to increased work enjoyment levels.

Previous studies have proven that work enjoyment is linked with performance (Bakker, 2008; Engeser & Rheinberg, 2008; Graves et al., 2012; Hsiao, Jaw, Huan & Woodside, 2015; Rodríguez-Muñoz & Sanz-Vergel, 2013; Sanz-Vergel & Muñoz, 2013). Performance is perhaps the most essential concern for any organisation, as this has proven to directly influence the organisation's profitability (Maiga, Nilsson & Ax, 2015; Taris & Schreurs, 2009). Previous research revealed that recovery among employees predicted improved task performance (Binnewies, Sonnentag & Mojza, 2010; Halbesleben, Wheeler & Paustian-Underdahl, 2013; Volman, Bakker & Xanthopoulou, 2013); research also proved that the degree of recovery gained during free time is influenced by the nature of the leisure activity; the activities should be positive, and not completely undemanding (Tucker, Dahlgren, Akerstedt & Waterhouse, 2008). Butler et al. (2011) also argue that more value will be added to the bottom-line the less the office is perceived as dull and drear. For these reasons, the assumption can be made that team performance levels will improve due to the play-at-work intervention.

In addition to the positive effects that playing at work may have on psychological detachment, work enjoyment and team performance, as implied above, it is also suggested that play at work may directly reduce workplace boredom. Boredom at work refers to "an unpleasant state of relatively low arousal and dissatisfaction, which is attributed to an inadequately stimulating work situation" (Schaufeli & Salanova, 2014, p. 298). Workplace boredom seems to be a persistent phenomenon among employees in organisations, mainly because of two reasons. Firstly, because highly qualified workers take lower-level job positions to secure an income (Sohail, Ahmad, Tanveer & Tariq, 2012), which results in employee competency outweighing task difficulty (Bruursema, Kessler & Spector, 2011). Secondly, because unending mobility, digital connectivity and fast advancing technology also serve to prompt the experience of workplace boredom (Loukidou, Loan-Clarke & Daniels, 2009).

Boredom has been associated with mental underload and when employee ability exceeds task demands (Schaufeli & Salanova, 2014; van Wyk, de Beer, Pienaar & Schaufeli, 2016). Bureaucratisation and standardisation can also result in boredom; for instance, helping professionals may feel bored when their skills are not properly utilised and they have to complete forms and write reports instead of helping clients (Schaufeli & Salanova, 2014). Schaufeli and Salanova (2014) also explain that workplace boredom is typically experienced when employees are doing short-cycle repetitive work.

Research has recognised the negative effects of boredom, e.g. overspill of boredom among different life domains (Bargdill, 2000), lower reported quality of life (Watten, Syversen & Myhrer, 1995), low job satisfaction levels and absence (Kass, Vodanovich & Callender, 2001), lower employee performance levels (O'Hanlon, 1981), depression and drug abuse (Wiesner, Windle & Freeman, 2005). Bruursema, Kessler and Spector (2011) found that bored employees are more likely to misbehave, exhibit nasty behaviours, purposefully do the job incorrectly, destroy the physical environment, and may avoid work in general. Bruursema and colleagues also indicate that boredom at work can lead to negative emotions such as anger, hostility and aggression – resulting in such damaging behaviour.

From the above, it is clear that the negative effects of workplace boredom should be addressed. In the current study, it is argued that playing at work may reduce employee boredom, especially in work environments characterised by repetitive, low challenging jobs as managers mobilise play at work to reduce workplace boredom experienced by employees (Butler et al., 2011). The modern workplace has a need for more frivolous entertainment since, according to the Mood Management theory, employees seek entertainment when they are bored (Perryer et al., 2016). Perryer and colleagues explain that, according to the mood management theory, the exposure to games in the workplace can help to regulate arousal or satisfy hedonic needs of the employees (e.g. to restores a deficit such as boredom). This again is in line with arguments that boredom should be used by employees to generate the need to do something pleasurable to escape (psychologically detach) from work (Jackson & Carter, 2011).

Past research has indicated that employees who are bored at work and who do not enjoy their work may have stronger intentions to leave the organisation compared to happy, satisfied employees (Kim, Knutson & Han, 2015; Reijseger et al., 2013; Schaufeli & Salanova, 2014). Tett and Meyer describe turnover intension as an employee's readiness to leave his or her job (Huang & Cheng,

2012). It is no surprise why it is important for managers to investigate employees' turnover intention. Employee turnover is costly due to recruiting, training, lost employee performance, and administrative effort expenses of new employees (Huang & Cheng, 2012; Perryer, Jordan, Firns & Travaglione, 2010). As managers can influence the factors triggering an employee's turnover intention, as the employee has not left the company yet, the understanding of factors that drive turnover intention is more valuable for managers (Perryer et al., 2010). According to Joo, Hahn and Peterson (2015), more research is needed to identify the effect of personal and contextual factors on employees' turnover intensions.

Previous studies have identified a relationship between employee turnover and many other workplace factors, including the work environment (Perryer et al., 2010), and work culture (Peterson, 2009). Karl, Peluchette and Hall (2008) found that employees who experience the workplace to be fun had lower levels of turnover intention. Fun and games at work may help to reduce employee turnover based on the following reasons: Employees want more from their work than just financial remuneration (Tews, Michel & Stafford, 2013). Employees in an organisation seek personal satisfaction, good relationships with co-workers, and work enjoyment (Grant & Parker, 2009). To play games at work can help employees to interact with each other in an informal setting, and thereby also improve work relations (Müceldili & Erdil, 2016; Tews et al., 2013). Fun may also reduce turnover of employees as it may compensate for work conditions that are not generally favourable (Tews et al., 2013). Lastly, it can also enhance employees' motivation and commitment towards an organisation (Butler et al., 2011). These reasons also support the idea that the play-at-work intervention may have an impact on employees' turnover intension levels.

Therefore, based on the above argumentation, it is clear that play at work as an organisational intervention may have an impact on levels of psychological detachment, work enjoyment, employee performance, workplace boredom, and turnover intention within organisations. This study will contribute largely to the literature in six ways. Firstly, because the literature is scarce regarding the application of play at work to the workplace context (Perryer et al., 2016; Spraggon & Bodolica, 2014; West, 2015). Secondly, this study will shed more light on psychological detachment during an employee's work break, as this has not been studied in detail before (Sonnentag & Fritz, 2015). Thirdly, this study will investigate whether play at work may increase work enjoyment levels. Fourthly, it will investigate whether play activities at work can increase team performance levels. Fifthly, it will indicate whether play at work may reduce the experience

of workplace boredom (Butler et al., 2011). Lastly, this study will also suggest whether play at work can reduce turnover intention levels (Joo et al., 2015).

1.2 Research questions

- How are play at work, psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention conceptualised according to the literature?
- What is the effect of play at work as organisational intervention on levels of psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention within work teams?
- What recommendations can be made for future research and practice?

1.3 Expected contribution

This study can make a contribution for the individual, for the organisation and also for the industrial psychology literature as explained below.

1.3.1 Contribution to the individual

Butler et al. (2011) explain that play can encourage employees to express themselves and their capabilities. According to the authors, play can also increase employee job satisfaction. This play-at-work intervention may make the workplace more enjoyable for individuals and help them to escape from experiencing factors such as workplace boredom (Butler et al., 2011; Perryer et al., 2016).

1.3.2 Contribution to the organisation

As there is limited research regarding play at work and the relationship thereof with other workplace constructs, this research may provide organisations with the necessary information regarding this topic to enable organisations to make more informed decisions about the implementation of play at work. If play at work has a positive effect on psychological detachment, it can lead to organisations assisting employees to improve their work life (Sonnentag & Fritz, 2015). Play can also enhance employees' motivation and commitment towards an organisation (Butler et al., 2011).

1.3.3 Contribution towards the I/O psychology literature

Research regarding play at work is scarce (Perryer et al., 2016; Spraggon & Bodolica, 2014; West, 2015), and therefore this study will contribute to the literature regarding the effect of play at work on psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention. The current literature revealed no similar studies regarding this topic in South Africa; therefore, this research may provide insight into the topic specifically within the South African context.

1.4 Research objectives

The research objectives are divided into a general objective and specific objectives.

1.4.1 General objective

The general objective of this study is to determine the effect of a play-at-work intervention on psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention in work teams.

1.4.2 Specific objectives

- To determine how play at work, psychological detachment, work enjoyment, team performance, workplace boredom, and turnover intention are conceptualised according to the literature.
- To examine the effect of play at work as organisational intervention on levels of psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention within work teams.
- To make recommendations for future research and practice.

1.5 Research hypotheses

H_1: A play-at-work intervention will be effective in increasing the psychological detachment of an experimental group, compared to the psychological detachment of a control group.

H_2: A play-at-work intervention will be effective in increasing the work enjoyment of an experimental group, compared to the work enjoyment of a control group.

H_3: A play-at-work intervention will be effective in increasing team performance of an experimental group, compared to the employee performance of a control group.

H_4: A play at work intervention will be effective in reducing the workplace boredom of an experimental group, compared to the workplace boredom of a control group.

H_5: A play-at-work intervention will be effective in reducing the turnover intention of an experimental group, compared to the turnover intention of a control group.

1.6 Research design

1.6.1 Research approach

A quantitative research approach was used for this study, as paper-and-pencil-based questionnaires were administered to employees. A pre-test-post-test randomised experimental design was utilised in this study. This implies that a measurement of a number of variables (in the case of this study, psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention) was assessed. An intervention was introduced, and after the intervention, the same measurement (psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention) was administered. For the purpose of this study, two post-tests were conducted; one being after one week of introducing the intervention, and another after two weeks of introducing the intervention. Therefore, a longitudinal three-wave study design was used to collect data and to determine the changes that took place in the organisation due to the play-at-work intervention (Ployhart & Ward, 2011). A three-wave study aims to provide in-depth information about the change that occurred (Ployhart & Ward, 2011), and consequently this design is most suited for the purpose of the study, as this study wanted to determine the effect that play at work as an intervention had on psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention.

1.6.2 Literature review

An in-depth literature search was done regarding play at work, work enjoyment, psychological detachment, team performance, workplace boredom and turnover intention. The applicable literature was collected by using internet searches and by making use of various databases, such as EBSCOhost, Google Scholar, SA ePublications and Science Direct. In addition, the University's Ferdinand Postma Library services were utilised to gain access to scientific journals, and therefore

the Catalogue, One Search and Lib Guides functions were used by applying the appropriate keywords, i.e. play at work, intervention, psychological detachment, work enjoyment, team performance, workplace boredom, work enjoyment and turnover intention. All the sources gathered were utilised as the literature is limited regarding this topic.

1.6.3 Research participants

The target population for this study was employees doing more work of a repetitive nature at a telesales company in the North West Province of South Africa. This population was more suited for the study, since the nature of their work has a strong association with workplace boredom and increased turnover intentions, as well as lower levels of work enjoyment (Cummings, Gao & Thornburg, 2016; Lobene, Meade & Pond Iii, 2015; Loukidou et al., 2009). Therefore, it was reasonable to expect that an environment where repetitive work is done can be more ideal to assess the effectiveness of a play-at-work intervention.

A non-probability purposive sampling method was used, since this type of sampling served the purpose of the study best (de Vos, Strydom, Fouche & Delport, 2011). The telesales department of the organisation consists mainly of two work teams whose work consists of similar tasks. For the purpose of the study, and to protect the identity of the company, these two groups were referred to as Group 1 and Group 2. The experimental and the control group were determined at random, which implies that both Group 1 and Group 2 had an equal chance to be selected as either the experimental group or the control group. This study aimed to include 40 participants ($N = 40$), but even though all employees in the department were invited to participate, only 26 completed the three-wave study ($N = 26$), and this resulted in the experimental group consisting of nine participants ($n = 9$) and the control group consisting of 17 participants ($n = 17$).

1.6.4 Measuring instruments

Biographical characteristics

According to the reporting standards for research in psychology, it is necessary to include a biographical section in the survey (Appelbaum, Cooper, Maxwell, Stone & Sher, 2008). The aim of this section was to gather information about the participants' age group and gender. This allowed for the reporting of basic group-level information.

Psychological detachment

Psychological detachment was measured by adapting the Recovery Experience Questionnaire (REQ) of Sonnentag and Fritz (2007). The questionnaire consists of four items. This scale reported a Cronbach's alpha coefficient of 0.84 within the South African context (Mostert & Els, 2015). The items used to measure psychological detachment in the REQ were adjusted to measure psychological detachment during play time, as illustrated by Table 1 below.

Table 1: Adapted items of the REQ

Item	Adjusted item
I forget about work.	When I play, I forget about work.
I do not think about work at all.	When I play, I do not think about work at all.
I distance myself from my work.	When I play, I distance myself from my work.
I get a break from the demands of work.	When I play, I get a break from the demands of work.

Work enjoyment

Work enjoyment was measured with the work pleasure scale, a section of the Dutch Questionnaire on the Experience and Evaluation of Work (van Veldhoven, Meijman, Broersen & Fortuin, 1997). The work enjoyment section includes nine items (e.g. "I enjoy my work"). This scale has been proven to be reliable with a Cronbach's alpha coefficient of 0.80 (Kompier, Tris & van Veldhoven, 2012).

Team performance

Actual performance was measured by means of objective performance data provided by the organisation. Performance was measured with the team's number of sales made for the duration of this study.

Workplace boredom

Workplace boredom was measured with the Dutch Boredom Scale (DUBS), developed by Reijseger et al. (2013). It contains six items (e.g. "I feel bored at my job" and "I tend to do other things during my work"). The scale has a reported Cronbach alpha coefficient of 0.78 within the South African context (van Wyk et al., 2016).

Turnover intention

This scale contains three items, i.e. “I am actively looking for other jobs”; “I feel that I could leave this job” and “If I was completely free to choose, I would leave this job”' (Sjöberg & Sverke, 2000). The scale has a reported Cronbach alpha coefficient of 0.83 (Sjöberg & Sverke, 2000).

The scale to document the resources was adapted so all the constructs were measured on a six-point scale ranging from 1 (*Strongly disagree*), 2 (*Disagree*), 3 (*Slightly disagree*), 4 (*Slightly agree*), 5 (*Agree*), 6 (*Strongly agree*). Psychological detachment and turnover intension were originally measured on agreement scales, but workplace boredom and work enjoyment were measured on frequency scales. Since there was only a short time in between the data collection waves, frequency scales would have been problematic, and therefore all the scales were adapted to a six-point agreement scale. It was also ideal to measure all the instruments on the same scale to avoid confusion on the part of the participants (Struwig & Stead, 2013).

1.6.5 Play-at-work intervention

A play-at-work intervention was introduced to employees working at a telesales organisation. The intervention was implemented in the organisation for two weeks and employees had an opportunity to play during their lunch break. The intervention consisted of different single- and multi-player games as all employees differ and are not interested in the same games (Perryer et al., 2016). The following games were available: foosball, darts, adult colouring, neon paint doodling, 30 Seconds, Heads Up, Scrabble, fingerboard, Jenga, crossword puzzles, Sudoku, playing cards and dominoes. These games were chosen, after discussing and seeking advice from experts in the field of industrial psychology. The researchers believed that these games could cater for the different interests of individuals, as it includes games that could be played alone and games that could be played with more than one player. These games also catered for employees who enjoy sport-like, creative, thinking, board-based and puzzle games. Below is a brief description of every game.

Foosball

This is a table game that resembles soccer in which a ball is moved by turning rods to which small figures of players are attached. This game is normally played by more than one player.

Darts

Darts is a throwing sport in which individuals throw small missiles at a circular dartboard that is fixed to a wall. This game can be played by one or more players.

Adult colouring

Colouring is not just for children anymore, adult colouring refers to line art to which people need to add colour with crayons, coloured pencils or marker pens.

Neon-paint doodling

This refers to painting images with paint that will glow.

30 Seconds

30 Seconds is a fast-paced game that is based on an individual's general knowledge. One player must guess as many words correctly in 30 seconds from their teammate's explanation. Two or more individuals can play this game.

Heads Up

This game is very much the same as 30 Seconds, but it is played on an electronic device (phone or tablet). It can be played with two or more players.

Scrabble

This is a board game that is based on forming words, and can be played with two to four players.

Fingerboard

It is similar to pool, but it is played on a square board with your fingers. One to four players can play this game.

Jenga

This game is represented by a stack of wooden blocks that looks like a tower. Two or more players take turns to remove a wooden block and replace it on top of the stack with one hand, until the tower falls.

Crossword puzzles

These are the same as the puzzles you see in a newspaper or magazine. This game is individual based.

Sudoku

The goal of Sudoku is to fill a 9×9 grid with numbers so that each row, column and 3×3 section contain all of the numbers between 1 and 9.

Playing cards

Normal cards (Bicycle cards) that are used in games such as Snap and poker.

Dominoes

There are many games that can be played with dominoes, but the simplest and most played is known as ‘block dominoes’. Two to four players take turns to place one of their dominoes onto the table, so all he dominoes are linked.

1.6.6 Research procedure

After ethical approval from the Ethics in Commerce Research Committee, the specified company was approached to obtain permission from the employers to implement the play at work intervention and to collect data. Informed consent was obtained from participants and the participants were also provided with the necessary information pertaining to the study. A questionnaire measuring the variables of interest was then administered to the participants prior to introducing the intervention. Next, the intervention was introduced to the experimental group. The experimental group was given the opportunity to play the games and activities mentioned earlier, for one hour per day during their lunch break, for two weeks. After one week, the same questionnaire as the pre-test was administered, and again after the second week to assess the possible effect of the intervention on the variables of interest. In the case of the control group, no intervention was introduced during the first week of the study. However, to allow this group also an opportunity to play at work, the control group was given the opportunity to participate in the intervention during the second week of the study. The same questionnaire administered to the experimental group was also given to the control group to complete.

The figure below illustrates the play intervention and the procedure for data collection:

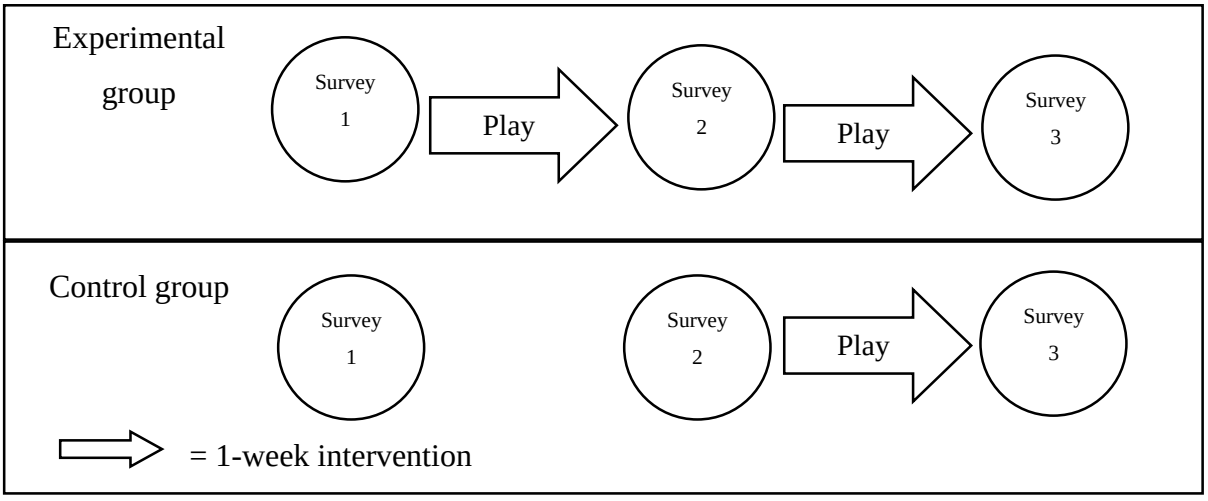

Figure 1: *Research procedure*

The questionnaires were distributed by hand and a sealed box was provided where the participants could deposit their completed surveys anonymously. In order to identify the participants and ensure that only the employees who complete all three waves of the questionnaires are included in the research results, while at the same time protecting the identity of the participants, a unique code was given to each participant. A simple code was identified by each participant, consisting of the first three letters of their fathers' names, followed by the last three letters of their mothers' names.

After the completion of the surveys, the data was anonymised and merged into a final dataset and prepared for data analyses. Next, the data was analysed and interpreted and a research report, in the form of a mini-dissertation, was written. Feedback to the company will only be given on the general results, and therefore no individual results will be shared.

1.6.7 Statistical analysis

Statistical analysis was performed with the Statistical Package for the Social Sciences (SPSS) version 24 (IBM, 2017). Descriptive statistics for each group were examined, referring to the measures of central tendency that include the mode, median and mean; measures of dispersion that include the range, standard deviation and variance; and skewness and kurtosis (Struwig & Stead, 2013). The independent sample t-test was utilised to determine statistical differences, set at the 0.05 level ($p < 0.05$), between mean scores of the experimental and the control group (Elliott & Woodward, 2007).

By referring back to the image that illustrates the intervention in the research procedure section, the mean scores are compared within groups and between groups. The mean scores of the three different waves of data from the experimental group are compared (within groups). The mean scores of the experimental group are also compared to the three different mean scores of the control group (between groups). The second wave of data from the experimental group is also compared to the third wave of data from the control group to identify whether the play-at-work intervention had the same impact on the different constructs during the first week of play. When the ANOVA results indicated significant differences among means, a further investigation was conducted by calculating an effect size (Cohen's *d* value), which represents the standardised mean difference between groups with 0.20, 0.50, and 0.80 considered small, medium, and large effects, respectively (Ellis, 2010). This indicated the practical effect of the differences in means. Statistical significance was set at the 0.05 level, i.e. $p < 0.05$.

1.6.8 Ethical considerations

Ethical behaviour guided this study at all times. After clearance was obtained from the Ethics in Commerce Research Committee, approval was obtained from the organisation to implement the play-at-work intervention. Furthermore, the participants who agreed to take part in the intervention had to provide the researcher with the necessary informed consent. Participants could withdraw from the study whenever they felt the need to do so, and therefore voluntary participation was adhered to. The researcher assured participants that all personal information and survey responses will be kept confidential (de Vos et al., 2011). This is done by presenting the results of the study in such a way that no individual employee will be identified and by only reporting on the group results. The do-no-harm principle was adhered to in this study, as the researcher respected the human dignity and rights of the participants (Salkind, 2012).

1.7 Overview of chapters

The research objective results are presented in the research article in Chapter 2. Chapter 3 includes a discussion of the conclusions, limitations and recommendations of the research.

1.8 Chapter summary

The problem statement, research questions, expected contribution, research objectives and the research hypotheses were outlined in this chapter. Secondly, an explanation was given of the research design that consists of the research approach, literature review, research participants, measuring instruments, the intervention, research procedure, statistical analysis and the ethical considerations. The chapter ended with an overview of the chapters that will follow.

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Chapter 2

Research article

Examining the effect of a play at work intervention on organisational outcomes of work teams

Abstract

Orientation: Organisations have jumped the gun in implementing play in organisations as literature regarding the application of play to organisational outcomes is still unknown.

Research purpose: This study aimed to determine the effect of a play at work intervention on psychological detachment, work enjoyment, employee performance, workplace boredom and turnover intention of work teams.

Motivation for the study: Although play at work is becoming more popular, the influence of this on organisational outcomes is scarce.

Research design, approach and method: A longitudinal, three-wave intervention study design was used with paper-and-pencil-based questionnaires to collect data from a non-probability purposive sample consisting of an experimental (n = 9) and a control group (n = 17). The independent sample t-test was utilised to test for statistical differences between the mean scores, and an effect size was calculated with Cohen's d value.

Main findings: The results indicated that the play at work intervention positively influenced employees' psychological detachment during their lunch break. Team performance also increased when the play at work intervention was introduced

Practical/managerial implications: Employees who participate in play at work during their breaks will psychologically detach more compared to other employees. According to previous research on psychological detachment, play at work can therefore have an effect on employee-workplace relationship conflicts, well-being, anxiety, role conflict, job demands and work engagement. Additionally, organisations who implement play will have higher team performance compared to others, thereby improving the profitability of organisations.

Contribution/value-add: This study contributes to the limited research on play at work and its effects on organisational outcomes. This study provided more insight into the effect of play at work on psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention.

***Keywords*:** Play at work, intervention, psychological detachment, work enjoyment, team performance, workplace boredom, turnover intention.

Introduction

Work and play have been seen as opposites that should be separated. As such, play was (and sometimes still is) not accepted in the workplace. The longest and strongest anti-play movement was the Protestant work ethic of hard work and diligence that was embraced by industrialists; for instance, Henry Ford made it very clear that play did not belong in his factories (West, 2015). Today, the view of play seems to be intertwined and inseparable from work, as some of the most successful companies in the world, e.g. Google, Lego, Southwest Airlines, and Sony embrace a fun and playful work environment (Butler, Olaison, Sliwa, Sørensen & Spoelstra, 2011; Sørensen & Spoelstra, 2012). However, it appears that companies have jumped the gun in making play at work recommendations as literature regarding the application of play to the workplace context is sparse (Perryer, Celestine, Scott-Ladd & Leighton, 2016; Spraggon & Bodolica, 2014; West, 2015). Therefore, this study aimed to determine the impact of play at work as an organisational intervention on the different levels of work-related constructs.

Literature review

Play at work as intervention

Play is described as a behavioural approach and it is characterised by being fun, imaginative, frivolous, and bound by rules in a way (West, 2015). There are different kinds of play that can take place in an organisation. Sørensen and Spoelstra (2012) identified that organisations can engage in play in three ways: serious play, critical play and uninvited play. Serious play refers to continuation of work, critical play as an intervention into work and uninvited play refers to a usurpation of work. West (2015) described that almost any activity can be play, as play is very diverse, but the majority of the literature found investigates gamification and not play at work.

Gamification refers to incorporating the characteristics of games with work (Perryer et al., 2016); therefore, the games or activities implemented in the workplace are incorporated with the work itself or work performance. According to Hayward (2017), more than 40% of global organisations implement gamification; this is no surprise, as research has proven that gamification can reduce retention, improve performance and therefore add more value to the bottom-line (Kapp, 2012; Perryer et al., 2016). Even though there are many positives regarding gamification, employees do not enjoy being forced to play. According to Bolton and Houlihan (2009), laughter and fun are something spontaneous; similarly, Sukovic, Litting and England (2011) highlighted that play is something that cannot be controlled. Correspondingly, West (2015) emphasised that play should

be done for no other reason but fun. Therefore, this study focuses on play at work that is done purely for fun, meaning that the games and activities in the intervention have nothing to do with the employees' work.

A playful work environment does not directly meet any organisational outcomes, but it can be a pleasurable mood booster through joy being an emotional contagion, resulting in employees learning from one other, improved team cohesion, social relationships, creativity, trust, commitment and productivity (Han, Kim, & Jeong, 2016; Sukovic et al., 2011; Tews, Michel, & Noe, 2017; Verenikina & Hasan, 2010; West, 2015). There are many positives regarding play in the workplace, but Sørensen and Spoelstra (2012) made a very important remark that if organisations lose control over it, play can bring a halt to work rather than to stimulate it. According to Tews, Michel and Bartlett (2012), young employees seek jobs that entail fun interactions with co-workers. Literature has indicated that employees under the age of 30 list having fun in the workplace as important when searching for jobs (Belkin, 2007). Research also indicated that the introduction of fun in the workplace may be welcomed by some employees, while others may resent it (Karl, Peluchette, & Harland, 2007). Therefore, the assumption can be made that younger employees may welcome play at work, while the majority of the senior workforce may not enjoy it. Research also proved that fun working environments are more customary in less formal organisations (Bolton & Plester, 2009); therefore, to encourage organisational play, it is essential to match play with the potential players (Perryer et al., 2016; West, 2015).

Although there have been fascinating findings regarding play, Müceldili and Erdil (2016) mentioned that there are still studies missing regarding workplace fun. The authors also stated that workplace fun should be investigated among work teams and the moderating effect of the organisation's size and type should be investigated. West (2015) also identified that more studies about play in the workplace can help to better understand the various aspects of play within an organisation. According to the literature, there is clearly still a large gap regarding the effect of play on organisational outcomes (Perryer et al., 2016; Spraggon & Bodolica, 2014).

Play at work and organisational outcomes

Psychological detachment: One of the main recovery experiences is psychological detachment; it refers to employees refraining from work-related thoughts and activities during non-work time, thereby disengaging psychologically from work (Sonnentag & Fritz, 2015). It forms part of the

conservation of resources (COR) theory and the effort-recovery (E-R) model that emphasise that employees need to recover to restore lost resources (Hülsheger, 2016; Sonnentag & Fritz, 2007). Research has shown that it is important for employees' wellbeing to psychologically detach from work during non-work time as it helps employees to restore energetic and affective resources (Sonnentag & Fritz, 2015; Sonnentag & Kühnel, 2016; Zijlstra, Cropley & Rydstedt, 2014).

Play promotes openness and humour, and helps employees to temporarily relax and forget about objectives (West, 2015). A study done by Oerlemans, Bakker and Demerouti (2014) identified that happiness during physical and social activities enhances recovery among employees. Similarly, Trougakos and Hideg (2009) identified that enjoyable activities help employees to restore their affective resources. Previous research also identified that employees whom experience workplace fun had lower levels of emotional exhaustion and emotional conflict (Karl et al., 2007). It was also found that employees psychologically detach more when they are fully engaged or absorbed by the off-job activities (Feuerhahn, Sonnentag, & Woll, 2014; Hahn, Binnewies, & Haun, 2012). Therefore, the assumption could be made that play at work may help employees to psychologically detach from work as it can be an enjoyable activity that is not completely undemanding.

> H_1: A play at work intervention will be effective in increasing the psychological detachment of an experimental group, compared to the psychological detachment of a control group.

Psychological detachment was at first only measured away from work, but Sonnentag and Fritz (2015) argue that employees can psychologically detach from work during their breaks; however, research regarding this is lacking. Therefore, there is a large gap in the literature regarding psychological detachment during break times at work, which this study aimed to investigate. Furthermore, another study also identified that employees felt most fatigued before their lunch break than any other part of the day (Hülsheger, 2016).

Work enjoyment: The workforce of today has changed from the previous years; employees now expect their work to be fun and enjoyable (Romero & Pescosolido, 2008; West, 2015), and as research has proved, the workplace can have a large impact on employees' happiness and wellbeing (Rodríguez-Muñoz & Sanz-Vergel, 2013) it is important to investigate employee work enjoyment. Work enjoyment refers to the extent that employees perceive their work as pleasurable or enjoyable (Graves et al., 2012). Peters et al. (2014) explain that work enjoyment is how

employees evaluate the quality of their lives at work. The antecedents of work enjoyment include employee characteristics, the employees' work itself and the work environment (Bakker, 2008), and therefore this study argues that the play at work intervention will influence the work environment, thereby influencing work enjoyment levels.

> H_2: A play at work intervention will be effective in increasing the work enjoyment of an experimental group, compared to the work enjoyment of a control group.

For employees to be happy at work, they need to experience more pleasure (Bakker & Daniels, 2013; Xanthopoulou, Bakker & Ilies, 2012). Positive events such as the play at work intervention can lead to employees experiencing positive emotions (Trougakos & Hideg, 2009). According to the broaden-and-build theory, when employees experience positive emotions, it can increase a variety of personal resources (Fredrickson, Cohn, Coffey, Pek & Finkel, 2008). Consequently, a study by Demerouti, Bakker, Sonnentag and Fullagar (2012) identified that work enjoyment results in lower exhaustion levels and higher vigour levels. The authors also identified that employees who psychologically detach during off time and who had high levels of work enjoyment also showed higher levels of vigour. Therefore, it is no surprise that research has proved that happy employees can lead to an organisation's competitive advantage (Kasper-Brauer & Leischnig, 2016). This is supported by other studies that proved that work enjoyment can lead to improved work performance (Engeser & Rheinberg, 2008; Graves et al., 2012; Hsiao et al., 2015).

Employee performance: If an organisation wants to have the competitive edge, they need to ensure that they employ the best; however, it seems that the new career enterers value fun at work. Still, it is understandable that many organisations are creating a fun work environment since it has an influence on not only the wellbeing of their employees, but also the reputation of the company as well as employee performance (Karl et al., 2007). Performance is important for any organisation as it directly influences the profitability of an organisation (Maiga et al., 2015). Performance is defined as "those actions and behaviours that are under the control of the individual and contribute to the goals of the organisation" (Rotundo & Sackett, 2002, p. 66).

Tews et al. (2013) argued that fun at work may allow employees to take a break from work resulting in employees being more engaged when they start working again, thereby improving performance. Karl et al. (2007) identified that fun at work can increase employee satisfaction and performance. Similarly, Fluegge-Woolf (2014) found that fun at work is directly and positively

related to citizenship behaviour and indirectly and positively related to employee performance. Butler et al. (2011) further argue that the less the office is perceived as dull and drear, the more value will be added to the bottom-line. Therefore, the assumption could be made that the play at work intervention will increase employee performance.

> H_3: A play at work intervention will be effective in increasing the team performance of an experimental group, compared to the team performance of a control group.

Workplace boredom: Workplace boredom refers to the experience of boredom within the domain of work (Van Wyk et al., 2016). Workplace boredom is described by Schaufeli and Salanova (2014) as "an unpleasant state of relatively low arousal and dissatisfaction, which is attributed to an inadequately stimulating work situation" (p. 298). When an employee's ability exceeds task complexity, workplace boredom is more prone to be experienced (Schaufeli & Salanova, 2014; van Wyk et al., 2016). Cummings et al. (2016) also mentioned that workplace boredom is experienced when employees feel their work is too simple and easy or when they have too little to do. Therefore, it is understandable that workplace boredom has also been linked to employees doing short repetitive work (Schaufeli & Salanova, 2014). Consequently, it is clear that the work environment and job characteristics are seen as main sources of workplace boredom (Loukidou et al., 2009).

According to the mood management theory, employees seek entertainment when they experience workplace boredom (Perryer et al., 2016). The authors further explain that, according to the mood management theory, play at work can satisfy hedonic needs of employees and assist in regulating arousal by reducing the experience of boredom. Jackson and Carter (2011) also argue that employees use boredom to generate the need to do something pleasurable, for instance play at work. Butler et al. (2011) explain that work has an intrinsic relation to the experience of workplace boredom and play represents the employees' desire to escape from it. Therefore, according to the authors, it is understandable that employees implement play in the workplace to cover up the boredom experienced by employees.

> H_4: A play at work intervention will be effective in reducing the workplace boredom of an experimental group, compared to the workplace boredom of a control group.

Although theory suggests that play can reduce workplace boredom, more research is needed to identify the direct influence of play on workplace boredom (Spraggon & Bodolica, 2014).

Turnover intention: Turnover intention is described as the rate at which employees want to leave the organisation (Nwagbara, Oruh, Ugorji, & Ennsra, 2013). Organisational factors play an enormous role in employees' turnover intention. Studies have proven that employee turnover can be influenced by supervisor support (Maertz, Griffeth, Campbell & Allen, 2007), work culture (Peterson, 2009) and work environment (Perryer, Jordan, Firns & Travaglione, 2010). As the work environment and work culture have a relationship with turnover intention, it is reasonable to expect that play at work may also have an impact on turnover intention levels.

> H_5: A play at work intervention will be effective in reducing the turnover intention of an experimental group, compared to the turnover intention of a control group.

To support this hypothesis, previous researchers have identified that employees who experience fun in the workplace had lower turnover intention levels (Karl, Peluchette & Hall, 2008). Furthermore, Tews et al. (2013) also mentioned that employees' turnover intention will decrease the more managers support fun in the workplace. Tews and his colleges (2013) also listed the following reasons why fun in the workplace may reduce the turnover intention levels of employees: most employees want more from their workplace than just remuneration; as employees spend most of their time at work, they seek the work experience to be fun and pleasurable; fun may compensate for work circumstances that are not usually flattering; and lastly, it can help employees to build interpersonal relationships with co-workers. Moreover, Grant and Parker (2009) also stated that, in addition to financial remuneration, employees seek interpersonal relationships with co-workers, intrinsic satisfaction and work enjoyment.

Research design

Research approach

A quantitative research approach was utilised for this study with a pre-test-post-test randomised experimental design. A pre-test was administered to the experimental and the control group before the play at work intervention was introduced. One post-test was done after one week of implementing the intervention and again after the second week of implementing the intervention.

Therefore, a longitudinal three-wave study design was used with paper-and-pencil-based questionnaires to collect the data regarding psychological detachment, work enjoyment, employee performance, workplace boredom and turnover intention.

Research method

Research participants

The population for this study consisted of employees working at a telesales company in the North West Province of South Africa. This study aimed to investigate employees performing more repetitive work, since repetitive work has been previously related to workplace boredom, turnover intention and lower levels of work enjoyment (Cummings et al., 2016; Lobene, Meade & Pond Iii, 2015; Loukidou et al., 2009). Therefore, it was reasonable to expect that the telesales environment would be ideal to assess the effect that a play at work intervention could have on these work-related outcomes. A non-probability purposive sampling strategy was used. The telesales department of the organisation consisted mainly of two work teams and these two teams were randomly assigned to the experimental and the control group. Therefore, both of the teams had an equal chance of being the experimental or the control group (Boot, Simons, Stothart & Stutts, 2013; Reid, 2013).

The biographical characteristics of the participants are presented in Table 2 below.

Table 2

Biographical characteristics of participants

	Category	**Experimental group**		**Control group**	
		Frequency	**%**	**Frequency**	**%**
Gender	Female	6	66.67	6	35.29
	Male	3	33.33	11	64.71
Age	20-29	8	88.89	15	88.24
	30-39	0	0.00	1	5.88
	40-49	1	11.11	1	5.88

Although all the employees in the department were invited to participate in the study, only 26 participants (N = 26) completed all three questionnaires, and therefore the experimental group consisted of nine participants (n = 9) and the control group consisted of 17 participants (n = 17).

The majority of the experimental group sample were females (*n* = 6*;* 66.67%) and 88.89% (*n* = 8) of the participants were between the ages of 20 and 29. The control group consisted mostly of males (*n* = 11*;* 64.71%) and 88.24% (*n* = 15) of the sample were between the ages of 20 and 29.

Measuring instrument(s)

Biographical characteristics:

The reporting standards for research in psychology bestow the inclusion of a biographical section in a survey (Appelbaum, Cooper, Maxwell, Stone & Sher, 2008). The biographical characteristics section of the questionnaire aimed to gather information regarding the participants' age group and gender. This section allowed the reporting of the composition of the sample and basic group-level information.

Psychological detachment:

Psychological detachment was measured by adapting the psychological detachment dimension of the Recovery Experience Questionnaire (REQ) of Sonnentag and Fritz (2007). This questionnaire has previously reported a Cronbach's alpha coefficient of 0.84 within the South African context (Mostert & Els, 2015). The four items that measure psychological detachment were adjusted to measure psychological detachment during the employees' lunch break when they participated in the play at work intervention, as illustrated by Table 3 below. It is also important to take note that the phrasing of the psychological detachment questions in the pre-test and post-test differs. In the pre-test, the items reflected the phrase *"during my break"* since the intervention has not yet been implemented, whereas in the post-test the questions were phrased to ask *"when I play"* to assess employees' psychological detachment after introducing the play at work intervention.

Table 3

Adapted items of the REQ

Items	**Pre-test adjusted items**	**Post-test adjusted items**
I forget about work.	During my break time, I forget about work.	When I play I forget about work.
I do not think about work at all.	During my break time, I do not think about work at all.	When I play I don't think about work at all.
I distance myself from my work.	During my break time, I distance myself from my work.	When I play I distance myself from my work.
I get a break from the demands of work.	During my break time, I get a break from the demands of work.	When I play I get a break from the demands of work.

Work enjoyment:

Work enjoyment was measured with the work pleasure scale, a section of the Dutch Questionnaire on the Experiences and Evaluation of Work (van Veldhoven, Meijman, Broersen, & Fortuin, 1997). This scale has nine items (e.g. "I enjoy my work") and has been proven to be reliable with a Cronbach's alpha coefficient of 0.80 (Kompier, Taris, & van Veldhoven, 2012).

Team performance:

Team performance was measured with objective performance data provided by the participating organisation. The team performance was calculated with the added total of all team members' number of sales and number of upgrades. The team performance during the two weeks of the intervention (first two weeks of July 2017) was compared to (a) the team performance in the month preceding the intervention (i.e. first two weeks of June 2017) and (b) team performance by the teams at the same time during the previous year (i.e. first two weeks of July 2016). The experimental group's team performance was also compared to that of the control group.

Workplace boredom:

Workplace boredom was measured with the one-dimensional Dutch Boredom Scale (DUBS) developed by Reijseger et al. (2013). This scale has six items (e.g. "I tend to do other things during my work") and has reported a Cronbach's alpha coefficient of 0.78 within the South African context (van Wyk et al., 2016)

Turnover intention:

Turnover intention was measured with three items, i.e. "I am actively looking for other jobs"; "I feel that I could leave this job" and "If I was completely free to choose I would leave this job" (Sjöberg & Sverke, 2000). This scale recently reported a Cronbach's alpha coefficient of 0.90 within the South African context (Redelinghuys & Botha, 2016).

All the items were measured on a six-point scale ranging from 1 (*Strongly disagree*), 2 (*Disagree*), 3 (*Slightly disagree*), 4 (*Slightly agree*), 5 (*Agree*), 6 (*Strongly agree*). Psychological detachment and work enjoyment were previously measured on agreement scales, but workplace boredom and work enjoyment were measured on frequency scales. Therefore, all the scales were adapted to a six-point agreement scale to avoid confusion on the part of the participants (Struwig & Stead, 2013).

Play at work intervention

For the purpose of this study, a play at work intervention was developed. As employees might not share the same interest in games, the intervention consisted of different single- and multi-player games and the games catered for individuals who enjoy sport-like, creative, thinking, board-based and puzzle games. Employees were free to choose which games they wanted to play during the intervention (Perryer et al., 2016). The 13 games that were implemented were chosen after consulting with experts in the field of industrial psychology. Table 4 provides a brief description of the games that were included in the intervention.

Table 4

Intervention games

Game	Description
Foosball	This is a table game that resembles soccer in which a ball is moved by turning rods to which small figures of players are attached. This game is normally played by more than one player.
Darts	Darts is a throwing sport in which individuals throw small missiles at a circular dartboard that is fixed to a wall. This game can be played by one or more players.
Adult colouring	Colouring is not just for children anymore; adult colouring refers to line art to which people need to add colour with crayons, coloured pencils or marker pens.
Neon-paint doodling	This refers to painting images with paint that will glow.
30- Seconds	30 Seconds is a fast-paced game that is based on an individual's general knowledge. One player must guess as many words correct in 30 seconds from their teammate's explanation. Two or more individuals can play this game.
Heads Up	This game is very much the same as 30 Seconds, but it is played on an electronic device (phone or tablet). It can be played with two or more players.
Scrabble	This is a board game that is based on forming words, and can be played with two to four players.
Fingerboard	It is similar to pool, but it is played on a square board with your fingers. One to four players can play this game.
Jenga	This game is represented by a stack of wooden blocks that looks like a tower. Two or more players take turns to remove a wooden block and replace it on top of the stack with one hand, until the tower falls.
Crossword puzzles	These are the same as the puzzles you see in a newspaper or magazine. This game is individual based.
Sudoku	The goal of Sudoku is to fill a 9×9 grid with numbers so that each row, column and 3×3 section contain all of the numbers between 1 and 9.
Playing cards	Normal cards (Bicycle cards) that are used in games such as 'Snap' and Poker.

Dominoes	There are many games that can be played with dominoes, but the simplest and most played is known as 'block dominoes'. Two to four players take turns to place one of their dominoes onto the table, so all he dominoes are linked.

Research procedure and ethical considerations

After the Ethics in Commerce Research Committee approved (NWU-00439-17-A4) the research proposal, the specified telesales organisation was approached. After permission was granted from employers to implement the intervention and to collect data, informed consent was obtained from participants. All necessary information pertaining to the study was also explained to the participants before implementing the intervention and before any questionnaires were administered.

The first survey (pre-test) was administered to both the experimental and the control group prior to introducing the intervention. During the first week of introducing the intervention, only the experimental group had the opportunity to play during their lunch break for one hour. After the first week of introducing the play at work intervention, both the experimental and the control groups completed the first post-test. To also allow the control group to have the opportunity to play, both the experimental and control group had the opportunity to play during the second week of the intervention. After the second week of play, both the experimental and the control group completed the second post-test. Figure 1 below illustrates the implementation of the play at work intervention and the research procedure followed to collect the data.

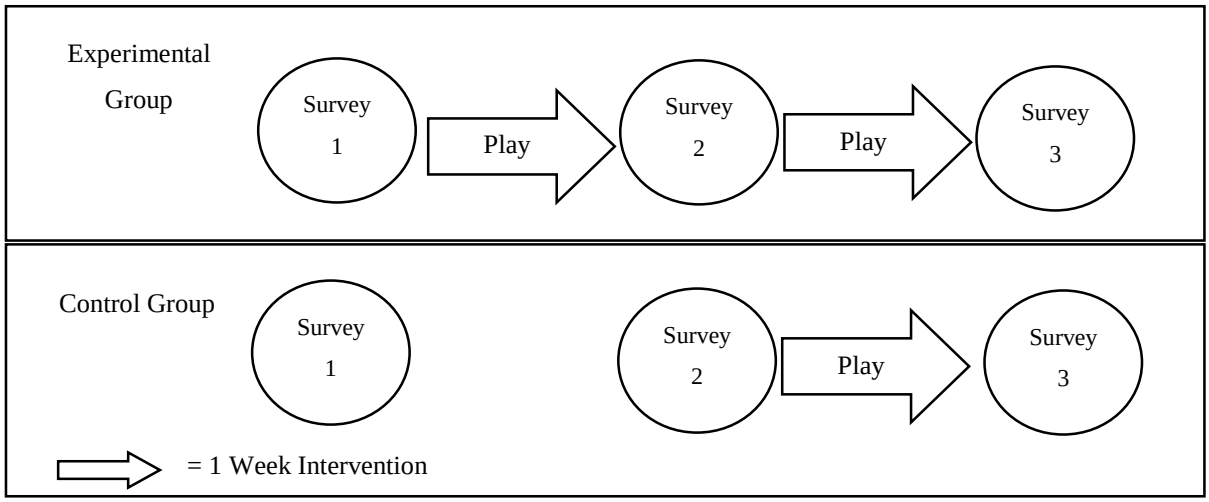

Figure 2: *Research procedure*

All the questionnaires were distributed by hand and participants anonymously deposited there completed surveys in a sealed box provided. A unique code was generated by each of the

participants that consisted out of the employee's first three letters of his/her mother's name, followed by the first three letters of his/her father's name. The unique code protected the identity of the participants and also assisted in identifying the employees who completed surveys on more than one occasion.

Ethics guided this study at all times. All the information concerning the study was explained before written informed consent was obtained from the participants (Foxcroft & Roodt, 2013). Voluntary participation was adhered to as employees could withdraw from the study at any given time (Salkind, 2012). The unique code given to all the participants kept the participants anonymous, no individual results were reported on and survey responses were kept confidential as raw data is only accessible by the researchers (de Vos, Strydom, Fouche & Delport, 2011; Salkind, 2012). Salkind (2012) explains that when one group benefits from a study, the other group should also benefit; since the control group also had the opportunity to participate in the play at work intervention, both groups received the same benefits. The measuring instruments used were standardised, valid and reliable (Foxcroft & Roodt, 2013). This study did not present any risks of physical or psychological harm on the part of the participants, and therefore the do no harm principle was adhered to (Salkind, 2012).

Statistical analysis

The Statistical Package for the Social Sciences (SPSS) version 24 (IBM, 2017) was utilised to perform statistical analyses. Descriptive statistics provided a summary of the data; measures of central tendency were calculated with the mean and median scores; measures of dispersion were calculated with variance, standard deviation, range, and skewness and kurtosis scores (Struwig & Stead, 2013). Statistical significance was set at the 0.05 level, i.e. $p < 0.05$. The independent sample t-test was used to tests for statistical differences between mean scores of the two groups (Elliott & Woodward, 2007).

To perform an independent sample t-test, the data must meet the following requirements (Reid, 2013):

- The dependent variable must be continuous.
- The independent variable must be categorical.
- Cases must have values on both the dependent and independent variables.
- Independent groups.
- Random data sample from the participants.

- The dependent variable must be normally distributed.
- Homogeneity of variances (same sample size).
- There must be no outliers.

When you implement an independent samples t-test, SPSS includes Levene's test to investigate for the homogeneity of variances. Levene's test has two hypotheses, i.e. the null hypothesis is that the variances of the experimental- and control group are equal, and the other hypothesis is that the variances of the experimental- and control group are not equal (Kent State University Libraries, 2017). When Levene's test indicates equal variances across groups (*p*-value non-significant), the first row of the output labelled equal variances assumed must be interpreted. If Levene's test indicates that the variances are not equal (*p*-value significant), the second row of the output, labelled equal variances not assumed must be interpreted. Kent State University Libraries (2017) explains that when equal variances are assumed, pooled variances are used to calculate the results of the independent sample t-test and when equal variances are not assumed, un-pooled variances and a correction to the degrees of freedom are used to determine the results of the independent sample t- test.

The mean scores of psychological detachment, work enjoyment, workplace boredom and turnover intention were compared within and between the groups. The three different waves of data from the experimental group were compared (within groups) and the three different waves of data from the control group were also compared (within groups). The mean scores of the experimental group were also compared to the mean scores of the control group (between groups). To determine whether the intervention had the same impact on both groups during their first week of play, the mean scores of the second wave of data of the experimental group were also compared to the mean scores of the third wave of data from the control group.

When the independent sample t-test indicated statistically significant differences in mean scores, an effect size was calculated, i.e. Cohen's *d* value. Cohen's *d* value represented the standardised mean differences between groups with 0.20, 0.50, and 0.80 considered small, medium, and large effects, respectively (Ellis, 2010). This effect size indicated the practical effect of the differences between the mean scores of the groups, as opposed to merely statistical significance.

According to Schönbrodt and Perugini (2013), correlations seem to converge to the population value as the sample size increases; the authors further explain that estimates in small samples are

regularly incorrect. The required participants for stable estimates to calculate correlations depend on the width of the corridor of stability (corridor around the true value where deviations are tolerated), the requested confidence that the trajectory does not leave the corridor, and the effect size. Schönbrodt and Perugini (2013) used Monte-Carlo simulations to determine the necessary sample size where correlations can be expected to be stable and their results indicated that 250 participants should be included in the sample. Therefore, as this study only had nine participants in the experimental group and 17 participants in the control group, no correlations or reliability scores were calculated as the values would be invalid, non-sensible representations in the groups and population.

Results

The dataset was normally distributed since the skewness and kurtosis scores were between 1 and -1, as can be seen in Table 5 below (Reid, 2013). All the requirements for an independent sample t-test were met as Levene's test supported homogeneity of variances. This analysis indicated that all the results had equal variances assumed, as none of Levene's tests for equality of variances' results proved to be statistically significant ($p < 0.05$).

Table 5

Data distribution

	Mean	**Median**	**Variance**	**S.D.**	**Range**	**Skewness**	**Kurtosis**
Psychological detachment	15.37	15.50	23.22	4.82	19.00	-0.03	-0.70
Work enjoyment	29.00	28.00	22.18	4.71	25.00	0.50	0.43
Workplace boredom	16.62	15.50	41.64	6.45	25.00	0.20	-0.79
Turnover intention	6.23	5.00	13.38	3.66	12.00	0.93	-0.38

Note: S.D. = Standard deviation

When comparing the mean scores, as seen in Table 6 below, the mean score for psychological detachment is noticeably lower at survey 1 of the experimental group when compared to the other surveys and the control group, with a standard deviation of 3.28. Furthermore it can be seen that the mean score for psychological detachment of the control group went considerably higher from survey 2 to survey 3 after the introduction of play. The results showed that the mean scores for work enjoyment, workplace boredom and turnover intention stayed relatively unchanged across the three surveys.

Table 6

Group mean scores and standard deviations

	Experimental group						Control group					
	Survey 1		*Survey 2*		*Survey 3*		*Survey 1*		*Survey 2*		*Survey 3*	
Variable	**M**	**S.D.**	**M**	**S.D.**	**M**	**S.D.**	**M**	**S.D.**	**M**	**S.D.**	**M**	**S.D.**
Psychological detachment	10.67	3.28	17.33	2.74	18.89	2.62	12.53	3.86	13.59	4.21	19.59	3.76
Work enjoyment	31.11	5.09	28.89	4.08	29.89	4.08	28.82	3.89	28.94	5.32	27.71	5.38
Workplace boredom	19.22	4.52	18.67	5.29	17.56	5.39	16.00	7.01	15.71	7.82	15.18	6.43
Turnover intention	6.89	3.79	7.00	4.47	7.67	4.00	5.59	3.50	5.59	3.36	6.00	3.61

Notes: M = mean value; S.D. = standard deviation

As seen in Table 7 below, when comparing the pre-test (survey 1) and the post-test (survey 2) of the experimental group, statistically significant differences were indicated for psychological detachment with $p < 0.001$. Cohen's d value ($d = 2.207$) indicated a large practical effect between these mean scores. There were no statistical differences for work enjoyment, workplace boredom or turnover intention.

Table 7

Independent sample t-test survey 1 and survey 2 of the experimental group

Variable	***p***	**Mean difference**	**Cohen's *d***
Psychological detachment	0.001*	-6.667	2.207
Work enjoyment	0.322	2.222	-
Workplace boredom	0.814	0.556	-
Turnover intention	0.955	-0.111	-

Notes: * = significant, *d* = effect size

After comparing the mean scores of the pre-test (survey 1) with the second post-test (survey 3) of the experimental group, statistically significant differences ($p < 0.001$) were indicated for psychological detachment with Cohen's d value ($d = 2.771$) indicating a large practical effect size difference. However, no statistical differences were indicated for work enjoyment, workplace boredom or turnover intention as presented in Table 8 below. No statistical differences were found when comparing the first (survey 2) and the second post-test (survey 3) of the experimental group.

Table 8

Independent sample t-test survey 1 and survey 3 of the experimental group

	p	**Mean difference**	**Cohen's *d***
Psychological detachment	.001*	-8.222	2.771
Work enjoyment	.581	1.222	-
Workplace boredom	.487	1.667	-
Turnover intention	.678	-0.778	-

Notes: * = significant, *d* = effect size

No statistically significant differences were indicated when comparing the pre-test of the experimental group to the pre-test of the control group. As seen in Table 9 below, when comparing the results of the second survey of the experimental group to those of the control group, statistically significant results were found at psychological detachment ($p = 0.025$), with Cohen's *d* value ($d = 1.054$) indicating a large practical effect. Again, no statistical differences were indicated at work enjoyment, workplace boredom or turnover intention.

Table 9

Independent sample t-test survey 2 of the experimental- and the control group

	p	**Mean difference**	**Cohen's *d***
Psychological detachment	.025*	3.745	1.054
Work enjoyment	.980	-0.052	-
Workplace boredom	.320	2.961	-
Turnover intention	.372	1.412	-

Notes: * = significant, *d* = effect size

No statistically significant differences were indicated when comparing the third survey of the experimental group to that of the control group. When comparing the results of the first week of play of both groups (survey 2 of the experimental group and survey 3 of the control group), no statistically significant differences were indicated. No statistically significant differences were identified when comparing the control group's mean scores of the pre-test (survey 1) to the first post-test (survey 2). There were statistical differences ($p < 0.001$) indicated at psychological detachment when comparing the pre-test (survey 1) to the second post-test (survey 3) of the control group, and Cohen's *d* value ($d = 1.853$) indicated a large practical effect as seen in Table 10 below. When comparing survey 1 and survey 3 of the control group, again no statistical differences were found at work enjoyment, workplace boredom or turnover intention.

Table 10

Independent sample t-test survey 1 and survey 3 of the control group

	p	**Mean difference**	**Cohen's *d***
Psychological detachment	.001*	-7.059	1.853
Work enjoyment	.493	1.118	-
Workplace boredom	.723	0.824	-
Turnover intention	.738	-0.412	-

Notes: * = significant, *d* = effect size

To assess team performance, the number of sales and upgrades made per team during the intervention (i.e. first two weeks of July 2017), one month prior to the intervention (i.e. first to weeks of June 2016) and one year prior to the intervention (i.e. first two weeks of July 2016) were calculated. Firstly, the team performance of the experimental group for July 2017 was compared to the same team's performance for July 2016. The results indicate that the team's performance was higher during the intervention in July 2017 when compared to July 2016. When comparing the control group's performance for July 2017 with the previous year, July 2016, the results indicate that the control group also performed better when participating in the intervention.

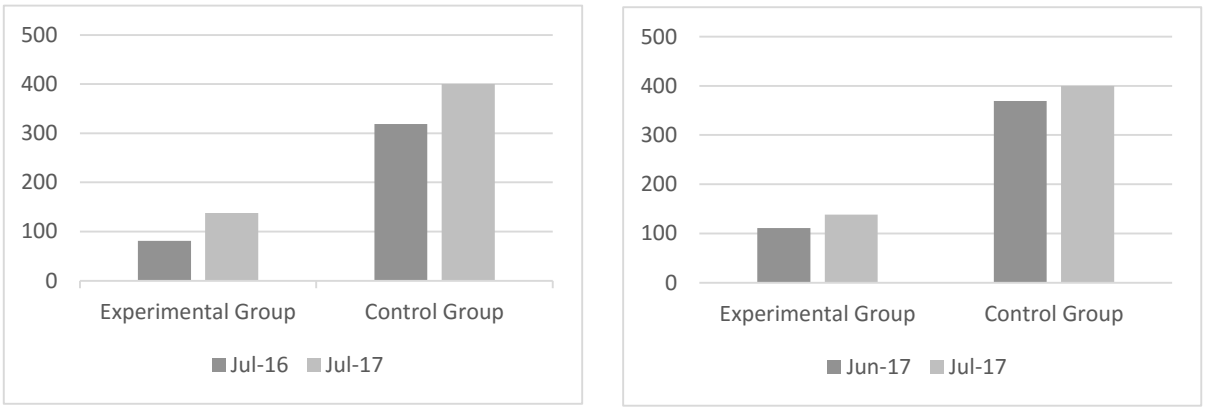

Figure 3: *Comparison of team performance July 2016, June 2017 and July 2017*

Furthermore, the results suggest that the experimental group's performance during the intervention was higher than their performance the previous month, June 2017, as seen in Figure 3 above. The experimental group's team performance during the first week of the intervention was also compared to their performance during the second week of the intervention. The results revealed that more sales were made during the second week of introducing the intervention than the first week of the intervention. Comparing the control group's results to that of the month before (June

2017) the intervention was implemented, indicated that the control group performed better while participating in the intervention, as seen in Figure 3.

Additional data was also gathered in the second and third survey to document the number of participants interested in each game, the total amount of time spent on each game, as well as the experiences of the employees playing these games. Table 11 below illustrates the number of participants who have played each of the games per week, and the total time (in minutes) each team spent playing each game per week. Both the experimental and control groups seemed to have enjoyed the foosball, darts, neon-paint doodling, 30 Seconds, fingerboard and playing cards. Less play time was spent on adult colouring, Heads up, Scrabble, Jenga, crossword puzzles, Sudoku and dominoes.

Table 11

Collective minutes played per team, per week

	Experimental group		**Experimental group**		**Control group**	
	No of participants	Total minutes week 1	No of participants	Total minutes week 2	No of participants	Total minutes week 2
Neon-paint doodling	4	360	2	105	7	655
Darts	7	290	7	370	10	435
30 Seconds	7	320	5	225	12	405
Foosball	6	160	4	175	8	295
Playing cards	7	265	5	180	7	260
Fingerboard	2	35	4	125	12	1050
Adult colouring	1	30	0	0	2	75
Heads Up	1	60	0	0	1	10
Scrabble	0	0	0	0	5	105
Dominoes	1	15	0	0	1	15
Jenga	0	0	0	0	2	30
Crossword puzzles	1	30	0	0	0	0
Sudoku	0	0	1	15	1	12

Furthermore, the experiences of the experimental and control group, per week, of participating in the play at work intervention can be seen in Table 12 below. Almost all the feedback was very positive, except for some participants who complained that the intervention takes place during their lunch break.

Table 12

Participants' experiences of play at work

Experimental group experiences of 1 week of play	"It gave me time to rest and clear my head."
	"A very nice way of clearing my head and to regain my energy for the second half of the day. In fact I have made more sales in the second half of the day almost every day this week."
	"It was a great way to become active and to get out of your own head. It was very relaxing and gave me the energy to go on."
	"It was really fun and it increased my work performance. It also enhanced teamwork between our colleagues."
	"Very relaxing and calming, a lot of laughs."
	"Relaxing."
	"Very nice, loved the brake."
	"It was fun, but food and smoking opportunities were little."
Experimental group experiences of two weeks of play	"Was very nice; enjoyed it, took mind of work."
	"Baie oulik, het dit gelove." [Very cute, I loved it.]
	"I really enjoy the games during brakes as it make my day feel a lot shorter and to start the second half of the day in a better frame of mind."
	"Had so much fun never had a dull moment, very relaxing."
	"It was amazing, while I had a great time with my colleagues, I also had a great break from my work."
	"Fun, very relaxing. Helps to clear the mind from negative thoughts and helps to rejuvenate the mind."
	"Calming/Relaxing. Energised after playing."
	"I enjoyed playing in lunch time."
	"I enjoy it but it is small and snacks to buy are needed."
Control group experiences of 1 week of play	"Relaxing & Fun."
	"Teambuilding to relax and not stress too much."
	"Dit was lekker ontspanning, thanks." [It was nice relaxation, thanks.]
	"It was fun and relaxing, made my day a lot better and easier to get through. For a moment I completely forgot about the demands of work."
	"Keeps your mind busy and is relaxing. Enjoy it very much."
	"It splits the day. You get to know the people you work with in a different way. It was a lot of fun."
	"Fun."
	"I enjoyed it, interacting and positive feedback from playing games. Chatting and bonding over work. Thank you."
	"It was great fun and it actually gives you more energy and takes my mind off of work that helps when you need to start again because you are more focused."
	"The time off was definitely welcome, the games provided were fun and helped with taking off some of the pressure at work. I prefer using my lunch break for personal tasks like going to the gym, doing tax and sorting out admin."
	"The time to play and take my mind off of work was something that I think was much needed."

	"It was very relaxing and helps to take my mind off the stress of work. Winning in a game helps to improve my mood before going back to work."
	"Playing really makes you forget about work and the stress caused by it, you then feel refreshed and motivated to work hard again, instead of feeling sluggish after just sitting around in lunch."
	"Very good opportunity to be distracted from work a bit."
	"It was relaxing, I enjoyed it a lot."
	"It truly takes my mind from work. Was fun learning colleagues on other ways than in work. Loads of fun/laughter."
	"It was a nice break. I still rather do something active like gym."
	"It was fun bonding with the people at work & not just talking work but enjoying ourselves."
	"It was very relaxing and also creatively stimulating. It gave me the opportunity to escape from my work atmosphere a bit and I felt more focused afterwards."
	"I felt I wasn't at work when I played. I felt more positive after playing. Even when I didn't feel like playing, I played and it really helped me to focus on something else."
	"Was baie gemaklik en goeie gebruik van tyd, lekker ondervinding." [Was very comfortable and a good way to pass time. Nice experience.]

Discussion

This study aimed to determine the effect of a play at work intervention on organisational outcomes of work teams by specifically investigating psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention. This study sought to address the gap in the literature, as previous research regarding the application of play to the workplace context is sparse and as psychological detachment during employees' lunch break has not been fully investigated (Perryer et al., 2016; Sonnentag & Fritz, 2015; West, 2015). A play at work intervention was implemented in a telesales organisation in South Africa for two weeks, and two work teams (the experimental and control group) had the opportunity to participate in the intervention during their lunch break. The experimental group played for two weeks and the control group only played the last week of the intervention. Both groups completed three waves of surveys, one being a pre-test before the intervention was implemented, the second after one week of implementing the intervention and the third after two weeks of implementing the intervention.

Hypothesis 1 stated that a play at work intervention will be effective in increasing psychological detachment of an experimental group, compared to the psychological detachment of a control group. The results support this hypothesis as the second survey indicated that the experimental

group experienced higher levels of psychological detachment during their lunch break when participating in the play at work intervention compared to the control group who at this stage did not participate in the intervention. The results of comparing survey 1 and 2 of the experimental group also confirmed that employees psychologically detached more while participating in the intervention. This hypothesis was again supported when comparing surveys 1 and 3 of the experimental group and surveys 1 and 3 of the control group. These results support the arguments that employees can psychologically detach during their lunch break and that leisure activities that are enjoyable, positive and not completely undemanding help employees to psychologically detach (Sonnentag & Fritz, 2015; Trougakos & Hideg, 2009; Tucker, Dahlgren, Akerstedt & Waterhouse, 2008).

These findings therefore suggest that a play at work intervention has the potential to allow employees to detach from their work. Previous research has noted the benefits of psychological detachment for both the individual and the organisation. A study by Moreno-Jiménez, Rodríguez-Muñoz, Pastor, Sanz-Vergel, and Garrosa (2009) found that psychological detachment moderates the relationship between workplace bullying and psychological strain. Previous research also suggests that psychological detachment from work alleviated the negative relationship between relationship conflicts at work and well-being (Sonnentag, Unger, & Nägel, 2013). It was also found that psychological detachment moderated the relationship between role conflict and anxiety (Moreno-Jiménez, Rodríguez-Muñoz, Sanz-Vergel, & Garrosa, 2012). Sonnentag, Binnewies and Mojza (2010) identified in a longitudinal study that psychological detachment from work has an impact on emotional exhaustion and buffers the relationship between job demands and psychosomatic complaints. The authors also identified that psychological detachment moderates the relationship between job demands and work engagement.

Hypothesis 2 of this study stated that a play at work intervention will be effective in increasing the work enjoyment of an experimental group, compared to the work enjoyment of the control group. This hypothesis was rejected as the results suggested that both the experimental group and control group's work enjoyment levels were relatively unaffected by the intervention. A possible reason for the lack of significant increase in work enjoyment may be because the play at work intervention took place during the employees' lunch break and therefore did not have anything to do with the employees' work itself. Sanz-Vergel and Muñoz (2013) also explained that work enjoyment refers to employees feeling happy while working. Research regarding the gamification of work may possibly yield more significant results when trying to establish a relationship between play and the

work itself, since gamification entails the application of game characteristics into non-gaming contexts (Perryer et al., 2016), meaning that you transform the employees' work into the form of a game.

Hypothesis 3 stated that a play at work intervention will be effective in increasing the team performance of an experimental group, compared to the team performance of the control group. The results from this study did indeed indicate that a play at work intervention has the potential to increase employee performance. It was found that the performance of the experimental group slightly increased during the duration of the intervention compared to the team's performance one month prior to the intervention, and also during the same time of the previous year. However, the control group's results also indicated that the team performance improved when participating in the play at work intervention. Therefore, according to the results, the play at work intervention seemed to improve the team performance of the experimental and the control group, thereby supporting hypothesis 3. These results are in line with Sørensen and Spoelstra (2012) who stated that play in an organisation is productive for work. Verenikina and Hasan (2010) also argued that play at work is an influence on the emotional climate and performance of an organisation. Previous research also indicated that recovery among employees predicts improved performance (Binnewies et al., 2010; Halbesleben et al., 2013; Volman et al., 2013). This may also explain the increase in the team performance in this study.

Hypothesis 4 suggested that a play at work intervention will be effective in reducing the workplace boredom of an experimental group, compared to the workplace boredom of a control group, which was not confirmed by the results. There were no statistically significant differences indicated in workplace boredom when the groups were compared, thereby indicating that the levels of workplace boredom experienced by the employees did not change during the play at work intervention. These results are in contrast to the suggestion made by Butler et al. (2011) that work and play have a relationship with boredom experienced by employees. These results also do not support that games in the workplace can help to restore a deficit such as boredom, as explained by the mood management theory (Perryer et al., 2016). Research has proved that when employees' abilities exceed their task complexity, and when they have too little to do, they are more prone to experiencing workplace boredom (Cummings et al., 2016; Schaufeli & Salanova, 2014; van Wyk et al., 2016). The lack of decline in workplace boredom experienced in our study may be explained by the fact that the play at work intervention may have given employees the opportunity to do something else when they experience workplace boredom, but it did not change the employee's

task complexity. Another reason for the rejection of the hypothesis may be due to the short duration of the play at work intervention. The question can be raised whether two weeks may allow sufficient time to recover from boredom at work.

Finally, hypothesis 5 stated that the play at work intervention will be effective in reducing the turnover intention of an experimental group, compared to the turnover intention of a control group. The results of the current study do not support this hypothesis as no statistically significant differences in turnover intention were found for the experimental group or the control group. Therefore, the levels of turnover intention experienced by the employees remained unchanged during the play at work intervention. These results are in contrast to a study done by Karl et al. (2008), who identified that employees who experience the workplace to be fun have lower levels of turnover intention. This study also does not support the findings of Tews et al. (2013) who identified that fun activities at work have a negative impact on turnover intention. The literature suggests many personal factors and organisational dimensions that can predict the turnover intention of employees, for example core self-evaluations, supervisor support, work environment and the work culture (Joo, Hahn & Peterson, 2015; Maertz et al., 2007; Perryer et al., 2010; Peterson, 2009). This hypothesis may have been rejected as many other factors can influence an employee's readiness to leave his or her job and the play at work intervention may not have addressed enough of these factors. Another reason for the rejection of this hypothesis may have been the duration of the intervention; as previously mentioned, two weeks may not have been enough to change an employee's turnover intention levels.

Previous studies identified that employees under the age of 30 are more prone to enjoy fun in the workplace (Belkin, 2007; Tews et al., 2012). The participants in this study were all almost younger than 30; 88.89% of the experimental group were younger than 30, and 88.24% of the control group were also younger than 30. For this reason, the age of the majority of the sample could have had an impact on the results. As employees older than 30 are not inclined to participate in fun at work, an older workforce may not have participated in the play at work intervention, which could have resulted in no statistically significant findings. The results also suggest that the participants showed interest in different games. This is in line with Perryer et al. (2016) who stated that all employees will not be interested in the same games as well as with Karl, Peluchette and Harland (2007) who identified that fun may be welcomed by some employees and not by others. Both teams seemed to enjoy the neon-paint doodling, foosball, darts, 30 Seconds, fingerboard and playing cards; interestingly, all of these games are group based, except for the neon-paint doodling. Employees

showed little to no interest in the individual games, for example adult colouring and crossword puzzles. Furthermore, the participants' positive experiences indicated that the play at work intervention was relaxing for the employees and it helped them to forget about work for a moment. Participants also reported that they got to know their colleagues in a new way. Participants reported that they also felt more focused and positive after playing in their lunch breaks. These findings support Trougakos and Hideg (2009) who identified that the experience of positive events also enhances the experience of positive emotions. This also builds on the broaden-and-build theory that conceives when employees experience positive emotions it helps them to increase personal resources (Fredrickson et al., 2008).

Practical implications

The aim of this study was to determine the effect of a play at work intervention on different organisational outcomes among work teams. Literature showed that the effect of play at work on different workplace constructs is still relatively unknown (Perryer et al., 2016; Spraggon & Bodolica, 2014; West, 2015), and therefore organisations do not know the actual influence of play in the workplace and the long-term effect thereof on the bottom-line. The results of this study provide evidence that play at work can help employees to psychologically detach during their lunch break and it may assist in increasing team performance.

In this study, it was found that play at work can increase the psychological detachment of employees. Psychological detachment can be greatly beneficial for the individual and the organisation. Research has shown that psychological detachment plays a moderating role in the relationships between some important organisational variables, including the relationship between workplace relationship conflicts and well-being (Sonnentag et al., 2013); and it also moderates the relationship between anxiety and role conflict in organisations (Moreno-Jiménez et al., 2012); and psychological detachment moderates the relation between job demands and work engagement (Sonnentag et al., 2010). Therefore, based on this study's results, it can be recommended that organisations should invest in implementing play at work to help employees to psychologically detach from work as it can benefit an organisation in the long run.

Furthermore, it can be suggested that when organisations invest time and resources to introduce playing at work, it may increase their bottom-line, as play at work improves team performance; and performance has been proven to directly influence the profitability of an organisation (Maiga et al., 2015).

Despite the positive consequences playing at work may have on employees and their performance, organisations should remember before implementing play in the workplace that some employees may welcome play in the workplace, while others may not (Karl et al., 2007). For organisations to benefit from playing in the workplace it is therefore important to match play with the employees. Furthermore, all employees differ and as a result they will not be interested in the same type of games (Perryer et al., 2016), and consequently it is also important to match the type of games with the employees in the organisation. Research has shown that younger employees (Belkin, 2007) and more informal organisations (Bolton & Plester, 2009) are more inclined to enjoy fun in the workplace. However, this does not mean that older employees or employees in more formal work settings may not benefit from playing at work. In the case of these employees, the organisation might need to convince the employees of the possible benefits of playing at work in order to win their buy-in. It can also be recommended that these employees are given the opportunity to express their preferences of the types of games they are interested in.

Limitations and recommendations

The findings concluded that a play at work intervention, during employees' lunch breaks, has a positive effect on employees' psychological detachment and team performance. However, this study is not without limitations. Firstly, the duration of this study was only two weeks. Consequently, the long-term effect of the intervention is still unknown. One could have done a last survey one or two months after the intervention to determine whether the inclines in psychological detachment and performance were prolonged effects or only short-term results. Due to time constraints, a longer intervention study was not possible to implement as part of the current study. Furthermore, it can be argued that two weeks might not have been enough time to influence levels of work enjoyment, workplace boredom and turnover intention. It is therefore suggested that future research should explore the possibility of a prolonged play at work intervention and the influence of such a longer duration on employee outcomes.

Secondly, the intervention was implemented in a telesales organisation in the North West Province of South Africa. The participating organisation is described by its management as informal. Previous research has indicated that informal types of organisations are more inclined to participate in play at work (Bolton & Plester, 2009), and therefore this type of intervention may not have the same effect in a more formal organisation as employees may not participate in the play at work intervention and therefore the intervention may not have the same results. For this

reason, these results cannot be generalised to all organisations within the South African context, and it can consequently be recommended that a more formal organisation or a multi-industry group should be investigated in future research. The results in this study showed that the employees enjoyed some games, but then also did not show any interest in some of the other games. Therefore, it is suggested that future research should investigate which games are more popular among different groups, for example age, gender and ethnicity, etc. This will support organisations to distinguish among what games to implement in the workplace. Furthermore, this sample only had nine participants in the experimental group and 17 participants in the control group. As estimates in small samples can be incorrect (Schönbrodt & Perugini, 2013), no reliability or correlations could be calculated. It can therefore be suggested that future research should utilise a larger sample to address this limitations.

Lastly, this study only investigated the effect of play on psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention. There is still a large gap regarding the influence of a play at work intervention on other organisational outcomes that still needs to be investigated as it can help to understand the different aspects of play and the outcomes thereof in an organisational setting (West, 2015). As no other studies could be found that investigated the effect of play in real organisational settings, future research can concentrate on other organisational outcomes, for example play at work and the effect thereof on employee engagement, management, work culture etc.

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Chapter 3
Conclusions, limitations and recommendations

This chapter includes the conclusions of this study that are subsequent to the general and specific objectives. Furthermore, the limitations of this study and recommendations for future research and practice are discussed.

3.1 Conclusions

Many organisations have reformed to a playful work environment, but literature regarding the application of play to the workplace context is sparse (Butler, Olaison, Sliwa, Sørensen & Spoelstra, 2011; Perryer et al., 2016). This study aimed to determine the effect of a play at work intervention on the organisational outcomes of work teams. The general objective of this study was to determine the effect of a play at work intervention on psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention of work teams. Commencing the general objective, the study's hypotheses were formulated, of which each were either supported or rejected.

The first specific objective of this study was to determine how play at work, psychological detachment, work enjoyment, team performance, workplace boredom, and turnover intention are conceptualised according to the literature. As an in-depth literature review regarding these constructs was completed in Chapter 2, the first objective of this study was achieved.

Play is described by West (2015) as a behavioural approach that is characterised by being fun, imaginative, frivolous, and bound by rules in a way (West, 2015). Organisations can engage in play in three ways: serious play, critical play and uninvited play (Sørensen & Spoelstra, 2012). Research has proved that employees at work prefer play to be voluntary and not a compulsory activity (Bolton & Houlihan, 2009; West, 2015). Furthermore, research also suggests that younger employees and less formal organisations are more inclined to participate in play at work (Belkin, 2007; Bolton & Plester, 2009). The literature indicated a large gap concerning the effect of play at work on organisational outcomes (Müceldili & Erdil, 2016; Perryer et al., 2016; Spraggon & Bodolica, 2014; West, 2015).

Psychological detachment refers to employees psychologically disengaging from work during their non-work time by not participating in job-related activities and thoughts. Two common theoretical models used to explain the process and benefits of psychological detachment are the the effort-recovery (E-R) model and the conservation of resources (COR) theory that explicate for employees to restore lost resources they need to recover (Hülsheger, 2016; Sonnentag & Fritz, 2007, 2015). Empirical research regarding employees' psychological detachment during work breaks is lacking (Sonnentag & Fritz, 2015). However, a few studies indicated that play at work may promote the right experiences to help employees psychologically detach from their work during their work breaks (Feuerhahn, Sonnentag & Woll, 2014; Hahn, Binnewies & Haun, 2012; Oerlemans, Bakker & Demerouti, 2014; Trougakos & Hideg, 2009).

Furthermore, previous studies also indicated that the workforce of today expects their work to be enjoyable (Romero & Pescosolido, 2008; West, 2015). Work enjoyment is described as the employees' evaluation of their work lives and the extent to which they perceive their work as enjoyable (Graves, Ruderman, Ohlott & Weber, 2012; Peters, Poutsma, Van der Heijden, Bakker & Bruijn, 2014). The work environment, employee characteristics and the employees' work itself have been identified as the antecedents of work enjoyment (Bakker, 2008). As play at work influences the work environment, it can be argued that play at work may also influence employees' work enjoyment levels. Tews, Michel and Stafford (2013) also argued that fun at work may help employees to break from their work, which results in employees being more engaged when they commence working again, which, in turn, improves employee performance. Performance is defined as "those actions and behaviours that are under the control of the individual and contribute to the goals of the organisation" (Rotundo & Sackett, 2002, p. 66).

The second last construct investigated in the literature review is workplace boredom. Schaufeli and Salanova (2014) defined workplace boredom as "an unpleasant state of relatively low arousal and dissatisfaction, which is attributed to an inadequately stimulating work situation" (p. 298). Main sources of workplace boredom include the employees' work environment and their job characteristics (Loukidou, Loan-Clarke & Daniels, 2009). The mood management theory explains that when employees experience workplace boredom, they are prone to seek entertainment; the theory further explains that play at work may also reduce the experience of workplace boredom (Perryer et al., 2016). Other authors also argue that when employees experience workplace boredom, they generate the necessity to escape from it by doing something pleasurable (Butler et al., 2011; Jackson & Carter, 2011). The last construct investigated in the literature review was

turnover intention. Nwagbara, Oruh, Ugorji and Ennsra (2013) describe turnover intention as the degree to which employees want to leave the organisation. Previous studies identified that the work culture (Peterson, 2009) and the work environment (Perryer, Jordan, Firns & Travaglione, 2010) can influence employees' turnover intention. As play at work influences the work environment and -culture, it is reasonable to expect play at work to influence the turnover intention levels of employees. Furthermore, research has proved that employees who experience fun at work and where managers support fun at work have lower turnover intention levels (Karl, Peluchette, & Hall, 2008).

The second objective of this study was to examine the effect of play at work as organisational intervention on levels of psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention within work teams. Two teams in a telesales organisation in the North West Province of South Africa participated in a play at work intervention and completed a three-wave, paper-and-pencil-based survey. The intervention included different single- and multi-player games. The experimental group (n = 9) participated in the intervention for two weeks during their lunch break, and the control group (n = 17) was only allowed to participate during the second week of implementing the intervention during their lunch break. The Statistical Package for the Social Sciences (SPSS) version 24 (IBM, 2017) and the independent sample t-test were utilised to determine statistical differences between the mean scores of the two groups (Elliott & Woodward, 2007). Furthermore, an effect size was calculated with Cohen's d value (Ellis, 2010).

The results indicated that the play at work intervention improved employees' psychological detachment during their lunch break, as well as their overall team performance. No significant changes in participants' work enjoyment, workplace boredom and turnover intention levels as a result of the intervention were found. As previous research already identified several benefits of psychological detachment during non-work times, the findings of this study not only have an effect on performance and psychological detachment, but also on many other factors as a consequence. Psychological detachment has been proven to reduce workplace bullying, psychological strain, relationship conflicts, role conflict, anxiety, emotional exhaustion and psychosomatic complaints, and increase employee wellbeing and the work engagement of employees (Moreno-Jiménez Rodríguez-Muñoz, Pastor, Sanz-Vergel, & Garrosa, 2009, 2012; Sonnentag, Binnewies & Mojza, 2010; Sonnentag, Unger & Nägel, 2013).

Furthermore, the team performance that improved during the implementation of the play at work intervention is in line with previous studies that identified that play in the workplace can be productive for work performance (Sørensen & Spoelstra, 2012; Verenikina & Hasan, 2010), and that employee recovery improves performance (Binnewies, Sonnentag & Mojza, 2010; Halbesleben, Wheeler & Paustian-Underdahl, 2013; Volman, Bakker & Xanthopoulou, 2013).

The data collected regarding the experiences of the participants indicated that the group-based games, i.e. foosball, darts, 30 Seconds, fingerboard and playing cards seemed to be more popular among the employees. Neon-paint doodling was the only individual-based game that was popular. This is in line with previous research that indicated that all employees will be interested in different games (Karl, Peluchette & Harland, 2007; Perryer et al., 2016). Many employees stated that the play at work intervention was relaxing and helped them to forget about work. Furthermore, they also stated that they felt more positive and focused after participating in the play at work intervention. The employees' feedback supported Trougakos and Hideg (2009) who identified when employees experience positive events, they also experience more positive emotions. Additionally, this is in line with the broaden-and-build theory that explains when employees experience positive emotions, it also helps them to increase personal resources (Fredrickson, Cohn, Coffey, Pek & Finkel, 2008).

3.2 Limitations

Although this study revealed statistically significant results, it is not without limitations. The play at work intervention was only implemented for two weeks in a telesales organisation. Therefore, the results only reflect the employees' psychological detachment, work enjoyment, team performance, workplace boredom and turnover intention levels for the two weeks during which the intervention was implemented. Therefore, no inferences can be made regarding the prolonged effects of play at work. Furthermore, it can be argued that the two weeks the play at work intervention was implemented may not have been long enough to have an effect on employees' work enjoyment, workplace boredom and turnover intention levels. It can be argued that prolonged opportunity to play at work may indeed impact these mentioned employee outcomes. However, due to time constraints, it was not possible to assess within the current study.

The play at work intervention was introduced in a telesales organisation in the North West Province of South Africa. The managers of the organisation described the organisation as relatively

informal. Previous studies have proven that employees in less formal organisations are more prone to take part in fun at work (Bolton & Plester, 2009). Therefore, it can be said that the play at work intervention may likely yield different results for organisations with more formal work environments. The results of this study can therefore not be generalised to all types of organisations.

The next limitation refers to the age and gender ratio of the sample. The results cannot be generalised to the larger population as the age and gender ratio of the sample cannot be applied to all types of teams in organisations. Furthermore, due to the small sample size of this study, with the experimental group consisting of nine participants and the control group of 17 participants, no correlation or reliability scores could have been determined, as estimates in small samples can be incorrect (Schönbrodt & Perugini, 2013).

3.3 Recommendations

3.3.1 Recommendations for future research

As this study only revealed the short-term result of play at work on organisational outcomes, it is recommended that future research should implement play at work with a longitudinal study that measures organisational outcomes one month and two months after the implementation of the intervention to determine the prolonged effects of play at work. Furthermore, this intervention was implemented in a telesales organisation and the effects of a play at work intervention in other organisations and industries are still largely unknown. Furthermore, the telesales organisation where the intervention was implemented can be described as relatively informal. Previous research has found that less formal organisation are more inclined to enjoy fun at work (Bolton & Plester, 2009) and therefore the possible effects of play within more formal types of organisations can be explored in future research.

The majority of the sample in this study was younger than 30 years old, and as a result, the findings cannot be generalised to all ages. It is therefore recommended that future research should investigate a sample with more variety in age. Furthermore, it is strongly suggested that the sample size of future studies be considerably larger than this study. This will allow researchers to assess the reliability of the instruments used as part of the current study, and also to assess the relationships between the variables. This study investigated the effect of a play at work intervention on psychological detachment, work enjoyment, team performance, workplace

boredom and turnover intention. Therefore, the scope of the current study was fairly limited. Since the effects of a play at work intervention are largely unknown, it is suggested that future research studies should explore employee outcomes other than those included in this study.

This study indicated that employees showed a great deal of interest in some games and little to no interest in other games. As all employees differ and may not be interested in the same games, and as it is important to match play with the employees in the organisation (Karl, Peluchette & Hall, 2008; Perryer et al., 2016), it is suggested that future research should investigate what games are more popular among different age groups, genders, and ethnicity groups, etc. This will provide more insight for organisations to know what games to introduce in the workplace.

3.3.2 Recommendations for practice

The main purpose of this study was to examine the effect of play at work on the organisational outcomes of work teams; therefore, this study aimed to identify whether play at work has the potential to improve employee outcomes. The results indicated that play at work can help employees to psychologically detach from work during their break time. As previous research showed that psychological detachment can benefit employees and organisations, as mentioned above, it is recommended that organisations should invest in play at work. Furthermore, the results showed improved team performance when the employees participated in the play at work intervention, and therefore, by implementing play at work, organisations can boost the performance of the employees. This can benefit organisations as performance directly influences the bottom-line of an organisation (Maiga, Nilsson & Ax, 2015).

Before organisations implement play at work, they should note that some employees may enjoy to play at work while other employees may dislike it (Karl et al., 2007). Furthermore, all employees are not interested in the same games (Perryer et al., 2016). It is therefore recommended that organisations should first match play and the type of games with their employees before implementing play at work. It is therefore also recommended that organisations interested in introducing play at work should consider relying on employees to indicate their games of choice. When organisations implement play at work, they should make sure they do not lose control over it, as play can bring a halt to work when not managed properly (Sørensen & Spoelstra, 2012).

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