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Performance: A Qualitative Study on Tertiary Institution Students, using In-depth Interviews.

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DECLARATION

I hereby declare that the Research Report submitted for the BA Honours In Psychology degree to The Independent Institute of Education is my own work and has not previously been submitted to another University or Higher Education Institution for degree purposes.

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A special thanks to my very supportive family. Their faith kept me going. I would also like to thank my very dedicated supervisor Dr. John Hunter. His dedication to helping me get to this final submission is very much appreciated. And finally I would like thank God, for helping me get this far.

ABSTRACT

It has been noted that many students suffer from anxiety when facing difficult academic tasks (Dobson, 2012). High levels of anxiety therefore tend to alter the student's psychological functioning to the extent that memory, attention, and concentration are affected (Franco, Manâs, Cangas & Gallego, 2010). Mindfulness training has been demonstrated to lessen the negative effects of anxiety on physical and psychological health, significantly reducing anxiety (Franco et al., 2010). Mindfulness has also been efficient in aiding the reduction of test anxiety amongst students (Altairi, 2014). The present study therefore aimed to explore whether Mindfulness has had an impact on the academic performance university students, particularly those who practice it. The study was designed as a qualitative study. Data for this study was collected through the usage of semi-structured interviews where each participants where asked a set of open-ended questions that enabled the researcher to gain an in-depth understanding on the topic. Findings from study suggests that mindfulness practice has been efficient in aiding the targeted students focus more, avoid self-judgement that leads to anxiety and obtain better time management skills. All participants believed they have seen improvement in their academic performance due to being in a better and calmer mental state, learning to organise themselves better and in essence doing their work early and gradually, avoiding to put pressure on themselves.

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Introduction

As the research topic regards an explorative study concerning the impact of mindfulness on academic performance, the research final report will provide the manner in which the researcher will conduct the study in addressing the topic, the research problem, the objectives and the research question. This final report will also explain that this study is qualitative, following an interpretivist paradigm thereby following the methodologies that concerns such a study. Anticipated contributions and limitations to this study will also be mentioned and evaluated.

Contextualisation

What is Mindfulness?

Mindfulness is the process of paying attention in a particular manner, on purpose, in the present moment and non-judgementally. It involves the practice of intentionally directing one's attention rather than letting it wander. It also involves the learning process of being fully engaged with and attentive to the present moment (Naik, Harris & Forthum, 2013). It teaches one to be accepting and non-judgemental to whatever rises in the moment. Essentially, sensations, thoughts and emotions are not judged as good or bad, pleasant or unpleasant. They are simply noticed as happening and observed until they eventually pass. It teaches one not to react but rather accept what occurs before them, remembering to pay attention to their present moment experience, as it is all that can be controlled (Naik et al., 2013).

Why is it important?

It has been stated that mindfulness is now understood and considered to be an inherent quality of consciousness that can be measured empirically and scientifically. This scientific interest in mindfulness has been largely credited to the work of Dr. Jon Kabat-Zinn, who is the founder of the University of Massachusetts Medical School Stress Reduction clinic. Kabat-Zinn, began researching what is termed as mind-body medicine around the 1970s, paying particular attention to the clinical application of mindfulness meditation for individuals afflicted with chronic pain and stress-related illnesses. His research developed the Mindfulness Based Stress Reduction (MBSR) curriculum; an eight week training course that has been proven to work for a wide audience. Particularly ranging from cancer patients to highly stressed business executives (Naik et al., 2013). In South Africa, the institute for Mindfulness South Africa (IMISA) in collaboration with the Stellenbosch tertiary institution faculty of Medicine and

Health Sciences have been recognised to hold the pioneering position of offering a South African University-based certificate training in Mindfulness based interventions. It has been noticed however, that South African Universities to this day do not integrate MBSR programmes. Mindfulness based stress reduction programmes are integrated in American tertiary institutions and have been proven to be beneficial. The implementation of MBSR programmes in South African tertiary institutions could therefore be of benefit to students dealing with school stressors, anxiety and test anxiety as it has been to American students (IMISA, 2019).

Rationale

Academic Rationale

This study intends to grab the attention of South African Universities. The study will be of benefit to university students, particularly those feeling the pressure of school and its requirements. The study will help university students understand how mindfulness works and how practicing it may positively impact their academic performance. If it is found through the researcher's study that there are indeed many benefits concerning the practice of mindfulness then this will be useful.

Industry Relevance Rationale

Universities could make use of this study as a motivator to test the efficacy of mindfulness through contemplating whether it can be a necessary step to implement MBSR programmes in their tertiary institutions. In a qualitative study that assessed the role of mindfulness instruction in promoting health and well-being among students at a university in the United States, many students as a result of the study reported that the cultivation of mindfulness also helped them with their academic focus and productivity. Specifically, the calm, groundedness, and focused attention they experienced led to a greater sense of energy and self-efficacy to be able to handle stress and complete tasks. Students conveyed that by paying attention to their inner narratives, accepting thoughts as they arise and letting them go, they fostered a quality of mind that gave them the ability to focus more effectively on the task at hand (Kerrigan et al., 2017). Other Researchers could also use this study as a guide to conduct more research on the topic, assessing whether the implementation of MBSR programmes in South African Universities would be really efficient , particularly in terms of whether it would be applicable to the south African context.

Problem Statement

It has been noted that many students suffer from anxiety when facing difficult academic tasks (Dobson, 2012). Anxiety has the potential to have a negative effect on the information processing system in the sense that it negatively impacts how one stores and retrieves information (Dobson, 2012). Research evidence has proven that students with high anxiety levels tend to focus their attention on how hard a task is, assessing their previous academic failures. High levels of anxiety therefore tend to alter the student's psychological functioning to the extent that memory, attention, and concentration are affected (Franco, Manâs, Cangas & Gallego, 2010). Mindfulness training has been demonstrated to lessen the negative effects of anxiety on physical and psychological health, significantly reducing anxiety (Franco et al., 2010). Increased mindfulness could prevent the relocation of working memory resources, consisting of executive attention during performance, to anxious thoughts, and the enabling of attention to be shifted from non-task-related stressors to task related information needed to complete for instance, whichever activity at hand (Altairi, 2014). Mindfulness has also been efficient in aiding the reduction of test anxiety amongst students (Altairi, 2014). What is currently not known is whether the integration of mindfulness programmes in South African tertiary institutions could be of benefit to students as it is indicative that lower levels of academic anxiety and test anxiety could potentially improve performance overall.

Purpose Statement

The purpose of the study is to explore how mindfulness is viewed in the eyes of those who already practice it. It particularly aims to assess whether it has helped the students with alleviating school stressors and anxiety, given that different students respond differently to anxiety and school pressures.

Research Question

- What is the perceived impact of mindfulness on academic performance?

Research Objectives

- To assess whether mindfulness has been effective in terms of alleviating school stressors
- To assess whether it has helped those who practice it, maintain focus when approaching whichever task at hand
- To assess whether it has helped participants with self-regulation, in terms of being disciplined when it comes to school work and getting things done
- To assess whether it has helped the participants lessen their anxiety and test anxiety that rises from fearing to fail due to previous failed tasks

Literature Review

Theoretical foundation

Shapiro et al. (2006) proposal of the three axioms that embody mindfulness

Shapiro et al (2006) propose what they call the three 'axioms'. It has been argued that these so called axioms occur simultaneously to produce the process that is mindfulness. The axioms are: intention, attention, and attitude. An often cited definition of mindfulness states that mindfulness refers to paying attention in a particular way on purpose, in the present moment, and non-judgementally, is said to embody the three axioms of mindfulness: 'On purpose' being viewed as the axiom of intention, 'Paying attention' being viewed as the axiom of attention, and 'in a particular way' being viewed as the axiom of attitude (Shapiro et al., 2006). It has been argued that these axioms create a process that produces the realisation of one's consciousness being separate from the contents of consciousness, and that this results in improved self-regulation. It in essence values clarification and improve cognitive, behavioural, and emotional flexibility. It also serves to successfully expose individuals to previously troubling internal states (White, 2014). In terms of intention, Shapiro et al (2006) explain that meditative mindfulness is indeed powerful, but in order for one to benefit from it, grow and change, a personal vision is necessary. In other words, it is important for one to set the intention and analyse why they have chosen to practice meditative mindfulness and what goals they are trying to achieve from practicing it. Looking at the axiom of attention, it is said that in the context of mindfulness practice, paying attention involves observing the operations of one's moment-to-moment, internal and external experiences (White, 2014). The importance of paying attention can be seen in cognitive-behaviour therapy, which is based on the capacity

to attend to, in essence observe, internal and external behaviours (Shapiro et al., 2006). At the core of mindfulness, is this practice of paying attention. Looking at the axiom of attitude, it has been acknowledged that the manner in which one attends is essential and the qualities one brings to attention have been referred to as the attitudinal foundations of mindfulness. The attitude axiom of mindfulness address the necessity of looking at experiences without evaluation or interpretation, and practice acceptance, kindness and openness even when what is occurring in the field of experience is contrary to deeply held wishes or expectations (Shapiro et al., 2006). It is said that in incorporating these axioms, within the training of mindfulness, the ability to take interest in each experience as it arises develops, also allowing what is being experienced to pass away and not held onto (Shapiro et al., 2006). This relates to the study in the sense that this theory and its three axioms could be of benefit to students in enhancing their academic performance. These axioms work to generate an enhanced self-regulation. It is therefore notable that through its usage, one can become more focused, paying more attention to school related tasks, completing them without easily getting distracted, address their school work with acceptance, compassion and non-reactivity when finding their school work challenging and complete their school task with the intention to get it done. Using these three axioms whilst practicing mindfulness could also potentially reduce anxiety and improve performance overall.

Hözel et al. (2011) proposal of an enhanced self-regulation facilitative model

Hözel et al. (2011) provide a second comprehensive model of the processes involved in the creation of mindfulness states. They present an enhanced self-regulation, mutually facilitative phase model of the mechanisms of mindfulness. They stipulate several components through which mindfulness meditation exerts its effects: attention regulation, body awareness, emotion regulation (including reappraisal and exposure, extinction, and reconsolidation), as well as change in the perspective of the self. The authors behind this theory further suggest that the mechanisms mentioned work synergistically, establishing a process of enhanced self-regulation (Hözel et al., 2011). Looking at the first component, Attention regulation involves sustaining attention on a chosen object. Whenever distracted, attention regulation requires one to return attention to the object. Looking at the second component, the body awareness mechanism involves focusing usually on an object of internal experience, particularly sensory experiences of breathing, emotions, or other body sensations (Hözel et al., 2011). Looking at the third component, the emotion regulation mechanism concerning reappraisal involves

approaching ongoing emotional reactions in a different way in essence non-judgementally and with acceptance. Looking at the fourth component, the emotion regulation concerning exposure, extinction, and reconsolidation involves the process of exposing oneself to whatever is present in the field of awareness; letting oneself be affected by it; refraining from internal reactivity (Hözel et al., 2011). And lastly, the fifth component, the mechanism of change in perspective of the self involves the process of detaching from identification with a static sense of self. It has been said that attention regulation is especially important and, as the basis of all meditative mindfulness techniques, appears to be a prerequisite for the other mechanisms to take place (Hözel et al., 2011). Focused attention on internal events is necessary in order for practitioners to gain an increased awareness of bodily sensations with the resultant ability to recognise the emergence of emotions. The ability to keep attention focused on a conditioned stimuli is also a prerequisite for the successful extinction of conditioned responses. Enhanced body awareness might be very closely related to the changes in the perspective on the self and might replace a narrative form of self-reference. The change of perspective on the self may result in reappraisal or reconsideration of situations in specific ways, which might provide motivation for further development of attention regulation and body awareness. As the components mutually facilitate each other, it is said that the occurring process could be understood as an upward spiral process (Hözel et al., 2011). This theory thus stipulates how each component is impacted through the practice of mindfulness. It is relevant to this study as students would want to practice mindfulness as it will teach them to regulate their attention, learning to redirect their attention back to their school work when finding themselves easily distracted. The students who decide to practice mindfulness can also learn to focus on the present moment and get rid of anxious thoughts concerning school through redirecting their focus to their breathing for instance. It can also teach the students to better regulate their emotions by looking at their situation with acceptance and non-judgementally.

Introduction

This literature review will address the review of both supporting literature and opposing literature. The perceived gaps in previous literature will also be addressed and critically analysed.

Review of previous supporting literature

This section provides what previous literature has denounced in supporting mindfulness. It will explore four themes, namely: Mindfulness, Cognitive test anxiety, the mechanism of attention, the mechanism of self-regulation and the integration of a mindfulness stress reduction programme. These themes explain the level at which mindfulness impact individuals as well as what exerts its effects.

Theme 1: Mindfulness

Mindfulness stipulates the idea of paying attention to what is occurring in one's immediate experience with care and discernment. When the concept of mindfulness was gradually introduced into the realm of western science, many thought its associated meditation practices were abstruse, bound to religious beliefs, and a capacity attainable only by certain people (Black, 2011). However, several decades of research methodology and scientific discovery have cleared myths, as mindfulness is now considered to be an inherent quality of human consciousness (Black, 2011). That it is a capacity of attention and awareness oriented to the present moment that varies in degree within and between individuals, and can be assessed empirically, independent of religious, spiritual or cultural beliefs (Black, 2011). Mindfulness has been demonstrated to be effective in a number of medical, psychological and educational problems (Franco, Mañas, Cangas & Gallego, 2010). This notion has incited particular interest in the field of psychology. Mindfulness through this recognition has been included in a wide variety of psychological interventions and therapies.

Mindfulness in contemporary psychology has been adopted as an approach for increasing awareness and responding skillfully to mental processes that contribute to emotional distress and maladaptive behaviours (Franco et al., 2010). It has been proclaimed that the practice of mindfulness teaches one to approach internal experiences with curiosity and acceptance, allowing for intensive self-observation without judgement, elaboration, or attempts to fix or change the experience (Franco et al., 2010). Mindfulness has been described as a process of

bringing forth a certain quality of attention to moment-by-moment experience. Mindfulness techniques have shown their effectiveness in improving psychological discomfort with its various forms of anxiety (Franco et al., 2010). Other effects of mindfulness related to stress and anxiety are reduced nervousness, worry and emotional discomfort. It has been stipulated that mindfulness also results in increased muscle relaxation and emotional calm. This relates to the study as this literature proves mindfulness' impact on academic performance, explaining the idea that mindfulness results in the reduction of anxiety amongst other benefits, thus inciting the idea that it could be of benefit to university students in alleviating school stressors and anxiety that comes with meeting deadlines and writing tests and exams

Theme 2: Cognitive test anxiety

Cognitive test anxiety delineates the heightened emotional state that is experienced during evaluative situations. Emotionality and worry are considered as the two components of test anxiety. Emotionality, seen as an affective component, is the subjective awareness of the autonomic responses experienced during evaluative situations (e.g. panic, dizziness, and nausea) (Amod, n.d.). Worry, seen as a cognitive component, is the cognitive expression of the individual's reaction to an evaluative situation. Both theoretical and empirical evidence have identified worry as being more detrimental to cognitive performance than emotionality (Amod, n.d.). It has been argued that although the incorporation of mindfulness in studies involving the academic setting is fairly new, research on other factors impacting student work has been under investigation for some time. One predominant area of research is test anxiety (Altairi, 2014). As the emphasis on academic standardized testing has increased, researchers have investigated the impact of test anxiety on exam performance. Anxiety can stem from many course-related issues, including inadequate preparation, comparing performance to peers, disappointing parents, consequences of performing poorly, and more (Altairi, 2014). Ultimately, the anxiety that comes from situations related to schoolwork has the potential to have a detrimental effect on memory span, concentration, confidence, and reasoning (Altairi, 2014). Generally, much research has acknowledged that test anxiety disrupts working memory, which is the cognitive system consisting of executive attention during performance. The working memory essentially uses attention to focus on relevant information and inhibit irrelevant information that comes from distracting or interfering thoughts (Altairi, 2014). The working memory is thus important for a wide range of higher-order cognitive tasks such as problem solving, reasoning and reading comprehension. Although early research focused

primarily on the effects of mindfulness on populations suffering from chronic pain and illness, contemporary studies have shifted their focus to the benefits of mindfulness training on cognition (Altairi, 2014). The impact of intensive mindfulness meditation on various performance tasks has been researched and findings suggests that individuals who participated in mindfulness training has enhanced sustained attention and working memory capacity (Altairi, 2014). This literature relates to the study as it proves the notion that cognitive test anxiety truly occurs, and students going through this are in need of intervention programmes that will aid them in reducing their anxiety and test anxiety, increasing their working memory capacity and bettering their academic performance through also being able to sustain their attention and focus during the completion of any challenging school work they are presented with.

Theme 3: The mechanism of attention

The mechanism of attention has been defined as the selection or prioritization regarding the processing of particular categories of information. It is essentially focused awareness, or selecting an element from the field of awareness and directing cognitive focus towards it (White, 2014). Attention can either be directed consciously or unconsciously, that is, through one's decision, or otherwise, in essence, through underlying processes that are below the level of conscious awareness (White, 2014). In mindfulness practice, individuals are able to manage their attentional resources so to speak, and consciously directing attention to observe any aspect of their experiences within their awareness; be it breath, sounds, thoughts or emotions (White, 2014). Each time it is noticed that attention has strayed from the intended subject of focus, it is re-directed back to the subject. Repeated practice develops the skill of attention-regulation, involving purposeful attention-direction and re-direction (White, 2014). Research on attention illustrates the key role that directing attention plays in shaping our experience in the sense that experience is created from what is attended to. For instance, it has been found that training participants to focus their attention on concrete, specific aspects of experience reduced dysphoria, which is a symptom of depression (White, 2014). They comment that 'cognitive models of psychopathology propose biases in cognitive processing, such as in attention, memory, and interpretations, may underpin the onset and maintenance of emotional disorders' (White, 2014). In accepting this view, it makes sense that re-directing attention would have a significant impact on psychological functioning. It has been claimed that the qualities of attention-redirection are what make mindfulness different from a simple

attention-regulation exercise (White, 2014). This is relevant to the study in the sense that mindfulness has been proven to alleviate the symptoms of depression through the skills it provides to aid individuals in mastering their attention-regulation. Mindfulness is thus an equitable tool for students who suffer from anxiety and test anxiety, providing the skills necessary to focus and get challenging school tasks done without worry, which can then improve their academic performance.

Theme 4: The mechanism of self-regulation

Self-regulation is an umbrella term used to encompass the ability to control many different systems (e.g., attentional, behavioural, and physiological) in adapting to the changing demands of the environment (Wait, 2017). It is considered as the control of aspects on the self in allowing the pursuit of long-term goals, and it is proposed as a central pathway through which mindfulness may exert benefits on well-being (Wait, 2017). It has also been positively associated with various outcome measures including academic achievement (Wait, 2017). Self-regulation involves fostering helpful, healthy emotions whilst controlling and managing disruptive feelings and thoughts (Wait, 2017). It has been argued that youths with good self-regulation are seen to have much more adaptive functioning when it comes to dealing with academic performance, social competence, problem behaviours, depression, and anxiety, compared to their counterparts with what is perceived as unfit self-regulation (Wait, 2017). It has been reported that bringing attention to current events and experiences is central to behavioural and self-regulation, whereby mindfulness is said to not only facilitates the control of behaviour, but it also regulates behaviour, in a manner that results in optimised well-being (Teodorczuk, Guse & Du Plessis, 2016). Teodorczuk et al. (2016) stipulate that particular research suggested findings that individuals with good self-regulation show better adaptive abilities resulting in improved academic achievement. Therefore, mindfulness has been shown to enhance self-regulation, and as it has been stipulated before, better self-regulation results in improved academic performance (Teodorczuk et al., 2016). It thus means that cultivating mindfulness results in positive academic outcomes (Teodorczuk et al., 2016). This therefore agrees with other sources that proves the idea that mindfulness does indeed allow one to nurture the skill of self-regulation which can then help one to find ways of better adapting to school pressures and the school environment. With this knowledge, the researcher can then find out whether the participants have benefited in this manner through practicing mindfulness.

Theme 5: Mindfulness-based stress reduction programme

It has been acknowledged that mindfulness based stress reduction programmes promote values of being versus doing (Dundas, Thorsheim, Hjeltness & Binder, 2016). It has been argued that although the value of 'being' may seem to contrast the efficacy expected of students, mindfulness training works to allow an individual to flexibly move from a driven 'doing' mode, that focuses on the discrepancy of how things are and how one would like them to be, for instance, having thoughts that expresses the idea that one shouldn't be anxious and should know everything, to a 'being' mode, which allows what is presently the case without trying to change it and with instilling thoughts that expresses the notion of accepting one's anxiousness, accepting that one does not know all the answers. The 'being' mode insist on the choice of being positive and thankful to still breath, to still be competent and valuable (Dundas et al., 2016). It has been further stipulated that the ability to balance 'being' and 'doing' may also be useful on a larger timescale, as it may help to balance work for instance, with rest. A study revealed that some students complain that they do not know when they should allow themselves to rest and when they should keep on studying (Dundas et al., 2016). It has been proven that studying without pauses is likely to be counterproductive. Mindfulness training involves developing a greater sensitivity to bodily signals, both those of energy and those of fatigue. Through the usage of MBSR programmes, students may be better at noticing when they still have energy and when they are actually exhausted. As a result, individuals will strike a healthier balance between time used in studying and time used in other activities (Dundas et al., 2016). A particular study conducted showcased the examination of MBSR programmes and its impact on academic evaluation anxiety and self-confidence in 70 help-seeking bachelor's and master's students (Dundas et al., 2016). The study followed what is termed as a repeated measures analysis of covariance on 46 students out of the 70 who completed pretreatment and post treatment measures of the mindfulness training programme (median=24 years, 83% women) and showed that evaluation anxiety and self-confidence improved through the usage of the programme (Dundas et al., 2016). A growth curve analysis with all 70 original participants showed reductions in both cognitive and emotional components of evaluation anxiety that incorporates test, exam and all forms of academic performance anxiety. Results also indicated that the reduction continued post intervention (Dundas et al., 2016). This research indicates the potential possibility of mindfulness based reduction programmes being able to reduce evaluation anxiety (Dundas et al., 2016). The ability to let go of ideas about how things should be, and to relax one's preconceptions, is

characteristic of a less anxious and more intended 'being' mode. It has been suggested that the balance between 'doing' and 'being' may be necessary for the best academic results in many fields (Dundas et al., 2016). Perhaps by reducing an anxious drive to avoid failure and by providing experiences of a more relaxed 'being' mode, this programme might increase student's confidence in their abilities not only for remembering and reproducing certain facts , but also creative thinking (Dundas et al., 2016). This relates to the study in the sense that it proves that the integration of mindfulness based stress reduction programmes in south African universities could benefit students, in assessing better ways to approach school work and minimise their anxiety and their fear of failure. Mindfulness training can allow the students to approach school work without the need to be pressured and stressed and rather get their school work done with optimism and the belief that for as long as they make time for school work, it will provide results, and even if it does not, there will be other opportunities that will present itself and their hard work will be paid off.

Review of previous opposing literature

This section will analyse previous literature that has been seen as opposing the practice of meditative mindfulness, particularly how it is hard to measure its efficiency and how it could actually have adverse effects

Theme 1: Mindfulness based stress reduction programme

As it has been mentioned before, mindfulness-based stress reduction is a formal programme developed to cultivate mindfulness, and has been found to be an effective programme for stress management (Yamada & Victor, 2012). Theoretically, it has been suggested that students' capacity for learning will increase when they actively nurture their skills to focus on, observe, and reflect upon the self by using their mind as the object of their reflection (Yamada & Victor, 2012). It has also been proposed that teaching reflective skills should be considered a fundamental part of basic education. Recent studies examining the utility of mindfulness practices in early educational settings have showcased the benefits of mindfulness trainings, including improvements in attention, social skills, mood, academic functioning, externalising problems, and executive function (Yamada & Victor, 2012). Although it has been proven that it works and that it has helped a wide audience, it has also been shown that it does not always ensure academic improvement. Yamada and Victor (2012) through their review of previous literature, presented a novel, preliminary attempt to investigate the effects of mindfulness

meditation incorporated into college classroom on student learning outcomes, using quantitative and objective measures (Yamada & Victor, 2012). They expected outcomes to include a decrease in perceived levels of stress, greater self-compassion, and less ruminative thinking, state and trait anxiety (Yamada & Victor, 2012). Their non-randomised but controlled study feasibly introduced a 10-minute mindful awareness practice in the context of a higher educational setting and aimed to associate it with the cultivation of mindfulness traits, as well as lower levels of rumination and state anxiety, it was expected that the mindfulness awareness practice could improve student learning outcomes, but it did not obtain empirical support for this assertion (Yamada & Victor, 2012). Statistical analyses revealed that there were no statistically significant differences between mindfulness and control groups on the students' class exam scores, total scores, and difference scores from the first to third class exam. This is in spite of the fact that students perceived that they had benefited from mindfulness awareness practice incorporated in the classroom (Yamada & Victor, 2012). This study thus stipulates the idea that mindfulness does not guarantee enhanced academic performance. It in essence disagrees with other sources that insist on mindfulness providing great benefits to students and increasing their performance in school, particularly in the higher education setting. According to this source, although practicing mindfulness is beneficial, it is not a definite that it will ensure academic success.

Theme 2: Mindfulness adverse effect: Decentering, psychological distance and practice amount

It is acknowledged that an essential part of mindful emotion regulation is decentering which delineates the ability to 'step back' or to have psychological distance from instead of fusion with one's experience, especially one's thoughts and emotions (Britton, 2019). Decentering has been found to mediate some mindfulness related increases in well-being (Britton, 2019). However, it has been discovered that mindfulness shares some neurobiological links with dissociation. It has been suggested that mindfulness training recruits dissociative functions, in essence out-of-body experiences and depersonalisation, to create mindfulness 'detached or objective mode of self-focus' or the ability to switch from a 1st to 3rd person perspective (Britton, 2019). In a review of mindfulness-based interventions, MBSR and mindfulness based cognitive therapy (MBCT), it was also found that 25% of the studies reported significant positive relationships between mindfulness practice amount, up to 45 minutes per day, and positive psychological or physical health outcomes (Britton, 2019). For three quarters (75%) of

the studies, the correlation between practice amount and positive outcomes was not significant, and some studies found a significant relationship between practice amount and negative outcomes (Britton, 2019). For example, it was discovered that low practice amounts in mindfulness based cognitive therapy participants increased sleep duration, but as practice amount approached 30 minutes per day, sleep duration and depth began to decrease. Long-term meditators have also been found to have poorer sleep than non-meditators. It has been thus stipulated that if one is seeking to improve sleep through mindfulness meditation, limiting rather than increasing practice may be the best recommendation (Britton, 2019). This relates to the study in the sense that it showcases the notion that mindfulness does also have adverse effects. Students should thus be aware of its adverse effect to better incorporate mindfulness training in their lives so that it can only benefit them. As mindfulness can be seen as too much of a good thing, seeing how most literature support it, it is essential to realise that it can also potentially harm one. For instance, due to school pressures, university students should value sleep and rest enough to produce good academic work and so it would be best for them to carefully practice mindfulness so that it can not get to the point where it becomes sleep-inhibiting as it has been discovered.

Theme 3: Difficulties in operationalising and measuring mindfulness

It has been argued that there has not yet been a consensus concerning the definition of mindfulness (Van Dam et al., 2017). Mindfulness is interpreted differently, which illustrates a level of ambiguity in the process of trying to make sense of the concept (Van Dam et al., 2017). Due to this, the operationalisation and measurement of mindfulness has been seen as challenging. These difficulties have been publicised to affect both mindfulness practice and the assessments of mindfulness as a mental state or personality trait. It has been further stipulated that different researchers have implemented varying mindfulness training approaches across studies, creating challenges for identifying common effects (Van Dam et al., 2017). A concern has been raised regarding attempts to measure mindfulness through the usage of self-report, as it has been revealed that a large fraction of recent research studies have used questionnaires for their primary assessment of mindfulness (Van Dam et al., 2017).

Gaps in previous literature

Internationally, mindfulness-based interventions integrated in universities for university students have been found to improve emotional regulation, psychological well-being, self-growth (Chetty, n.d.). The integration has also proven to be beneficial for depression. However, there are very few of mindfulness training intervention on the psychological well-being of 36 undergraduate music students (Steyn, Steyn, Maree & Panebianco-Warrens, 2016). 21 out of the 36 participants were elected to take the psychological skills and mindfulness training intervention. Data on their self-reported psychological well-being, psychological skills, mindfulness and performance anxiety levels were collected pre- and post-intervention. Findings suggested improvements in psychological well-being, psychological skills, mindfulness and performance anxiety with training (Steyn et al., 2016). The results of this study proved the notion that the integration of mindfulness intervention programmes in south African universities could be of benefit of the students, in terms of alleviating school stressors.

Conclusion

To conclude, one can thus stipulate that mindfulness training beneficial but can also cause adverse effects on individuals. Although literature mostly glorifies its training, it is important to note that when it is done excessively it could cause adverse effects. Mindfulness does not also guarantee academic success at all times but does provide one with the necessary skills to better oneself academically. Researchers do also find it hard to measure Mindfulness which could pose as a limitation when assessing its real efficacy.

Conceptualisation

Cognitive Test Anxiety: this concept refers to the physiological and behavioural reactions affiliated with worry concerning negative consequences or poor performance in an exam (Altairi, 2014). This concept forms part of the research problem and the reason why the integration of mindfulness programmes in south African universities should be looked into, in attempt to aid students who find themselves with test anxiety and anxiety as a whole.

Emotion-regulation: this term is generally used to describe a person's ability to effectively manage and respond to an emotional experience. It has been found that individuals unconsciously use emotion regulation strategies to cope with difficult situations many times

throughout each day (Rolston & Lloyd-richardson, n.d.). This explains what mindfulness achieve, in the sense that people learn to better regulate their emotions and adapt to life and its pressures more easily.

Mindfulness Meditation: mindfulness meditation is said to primarily nurture an ability to bring a nonjudgemental sustained awareness to the subject of attention, in essence what needs to be focused on. It may utilise any object of attention, be it an emotion, the breath, a physical feeling, an imagine, or an external object (Kristeller, 2007). This in essence explains meditative mindfulness and what is done.

Self-regulation: this concept refers to the ability of monitoring and modulating cognition, emotion and behaviour, in terms of accomplishing one's goals and/ or of adapting to the cognitive and social demands of specific situations (Berger, Kofman, Livneh & Henik, 2007).

Research Design and Methodology

Chosen Paradigm

The selected paradigm for this study will be the interpretivism paradigm, aiming to gain an in-depth understanding of what it is essentially like to live a life practicing meditative mindfulness and how it particularly has influenced the participants' academic performance. The researcher through following this paradigm seek to grasp what the chosen participants view as mindfulness with the interest of seeing whether it has worked in enhancing their academic performance. Following this paradigm projects the researcher's belief that truth is independent on individual's interpretation of facts, holding no interest in generalising the result (du Plooy-Cilliers, Davis & Bezuidenhout, 2014). In attempt to fully discuss what this paradigm is in depth, two particular positions of this paradigm are looked into. In terms of the epistemological position of interpretivism, it is important to note that interpretivists view facts as fluid, and embedded within a meaning system (du Plooy-Cilliers et al., 2014). According to interpretivists, facts are not objective and neutral. They argue instead that what is factual depends heavily on the context and people's interpretation of information. Thus people can only assign applicable meaning to an act if they take into account the social context within which the act occurs. In terms of the ontological position of interpretivism, it has been

denounced that interpretivists do not believe in an objective, external reality that is experienced in the same way by everyone. They believe that reality is a social construction and that it is dependent on the meanings that people accredit to when they assess their own experiences and interactions with others (du Plooy-Cilliers et al., 2014). According to interpretivists, the social world is what individuals perceive it to be. It is fluid and fragile, changing as people's perception change.

Research Design and Conceptual approach

Methodology

This study is qualitative. The study aimed to gain an in-depth understanding of mindfulness and its impact on academic performance, working to make sense of this particular phenomenon.

Cross-sectional

It is a cross-sectional study. The researcher measured the outcome and the exposures in the study participants at the same time.

Exploratory

This study is an exploratory study that aims to explore mindfulness and its impact on academic performance (du Plooy-Cilliers et al., 2014). The study focuses on interpreting and understanding the participants' experiences with meditative mindfulness (du Plooy-Cilliers et al., 2014). The study is non-empirical, as in-depth interviews will be used to suggest findings and not numerical data (du Plooy-Cilliers et al., 2014).

Inductive

It is a cross-sectional study that pursues the inductive reasoning, particularly in the fact that it moves from the specific observations to broader generalisations and theories. It essentially moves from the idea that mindfulness is mostly beneficial to the research's aim to assess how different individuals perceive the impact of their meditative mindfulness journey, explaining the level at which it has impacted their academic performance, if it has (Burney & Saleem, 2008).

Population

The population has been defined as the total group of individuals or entities, in essence social artefacts, from whom information is required. In this case, the researcher had to look for a population that fit the population parameters with the capability of providing the researcher with an in-depth understanding of mindfulness, as well as their perspective in terms of whether they have noticed its impact on academic performance (du Plooy-Cilliers et al., 2014).

Unit of analysis

- Human participants have been used for this qualitative study

Target and Accessible Population

Target Population

- Tertiary institution students
- Students from second year onwards studying in the Gauteng Province
- Students who practice mindfulness or has done it before with at least one year of university experience

Accessible Population

- Due to having done interviews online through the usage of zoom calls and whatsapp video calls, students from all over the Gauteng Province and not merely Johannesburg were thus accessible. For instance, one of the participants chosen for the study resides in Pretoria. The online interviews were of benefit to the researcher as there was no need to travel and meet individuals in person. this allowed the researcher to cut down the costs that would have gone to transport provision.

Population Parameters

The population parameters refer to the shared characteristic and the number of individuals or entities. It in essence, refer to the nature, size and unique characteristics of the population. In

this case, individuals who live in South Africa, preferably in the Gauteng province, practice mindfulness and who are currently studying with over a year of experience will be targeted.

Sampling

This step required the researcher to develop a list of individuals they intended to make contact with. A sample is considered a subset of a population that is considered to be representative of the population. The individuals included in this list are thus referred as elements of the sample and the process of choosing a sample of the population to study is called sampling (du Plooy-Cilliers et al., 2014). Through this qualitative research and the researcher's choice to follow an interpretivist paradigm, the researcher aimed to gain an in-depth understanding of the concept of mindfulness and its perceived impact on academic performance. The researcher, through this study, does not intend to generalize the results, allowing for the sample size to not necessarily be as large as it would have been if the researcher had chosen to conduct a qualitative study (du Plooy-Cilliers et al., 2014).

Non-Probability Sampling

With the usage of the non-probability sampling method, the researcher ensured that the sample met the population parameters of the study. However, the sample was selected according to the researcher's judgement in that participants were not selected randomly. The inclusions in the sample were based on the researcher's ability to make contact with the participants and not on a random or systematic selection (du Plooy-Cilliers et al., 2014). The sample is thus different to one selected by means of probability in the sense that elements chosen in the population did not allow for an equal opportunity to form part of the sample. Through this decision, the researcher acknowledged the idea that the representativeness of the sample is not as important and that the main focus is more on how many individuals are needed to be interviewed in order for the researcher to gain an in-depth understanding of the research problem they are exploring (du Plooy-Cilliers et al., 2014). The researcher is also keeping in mind that the findings from the usage of this method are in most cases not used to generalise results to a larger population.

Strengths

It has been stipulated that this method works best when time is limited and results are needed urgently. It is suitable for instances where the population is difficult to access and when financial resources are limited. Research suggests that this method of sampling is considered less expensive, less complicated and easy to apply as opposed to probability sampling (Maree & Pietersen, 2020).

Weaknesses

One of the major shortcomings that have been considered regarding the non-probability sampling is that the findings established through this method lack generalisability. It is stipulated that even though the findings obtained through this method apply mostly to the group studied, it is apparent that it may be wrong to extend these findings beyond that particular sample (Showkat & Parveen, 2017). This method is said to only allow the researcher to study particular phenomena with a potential to generate valuable insights. In this case, studying the phenomena of mindfulness and its impact on academic performance. This study resulted in valuable insight as the researcher got to explore the experiences of the participants involved, coming from vast perspectives and valuable insight on how they perceive mindfulness and its impact on academic performance.

Data saturation

According to literature it has been acknowledged that MBSR programmes promote values of being versus doing (Dundas et al., 2016). Mindfulness training works to allow an individual to flexibly move from a driven 'doing' mode that has one having thoughts of how they should not be anxious and should know everything, to a 'being' mode that has one accepting their anxiousness, accepting that they do not know all the answers and would therefore rather be positive and show gratitude of still being able to breath, of still being competent and valuable (Dundas et al., 2016). It has been postulated that balancing the 'being' and 'doing' modes could be useful on a larger timescale, as it may help to balance work for instance with rest. This literature was further proven through the interviews conducted. The 5 participants chosen for the study, all discussed the notion that mindfulness training has taught them to breakdown their tasks and not allow themselves to do everything at once. The 5 participants reached data saturation in that manner. They stipulated that this results in them finishing challenging school tasks much faster, thus stipulating that the 'doing' mode and constantly working, trying to do

everything at once, is counterproductive. The researcher however only conducted interviews with 5 participants. This could be interpreted as a potential limitation due to the sample being small and not enough to provide an in-depth understanding of the phenomena assessed through this study.

Purposive sampling with an element of snowball sampling

Through the usage of purposive sampling, the researcher purposely chose the elements desired to include in their sample based on a set list of characteristics. The researcher, in essence, looked at their population and their research question, which asks what the participants' perceived impact of mindfulness on academic performance is (du Plooy-Cilliers et al., 2014). Through a careful analysis of the research question, the researcher was then able to determine what characteristics from the population was important for the research. This then allowed the researcher to carefully select a sample from the population that have the needed characteristics, discarding elements of the sample that did not. The researcher also incorporated elements of the snowball sampling method as they made use of referrals to increase the sample size. The researcher firstly made contact with a few individuals who match the population of their study. After obtaining contact and allowing the suitable population to participate in the study, the researcher then asked them to suggest names of others who may be interested (du Plooy-Cilliers et al., 2014).

Strengths

The advantage of these combined methods is the notion that the researcher has the privilege to ensure that each element of their sample is assisting their research, fitting with the population parameters of the study (du Plooy-Cilliers et al., 2014). It has been explained that qualitative research designs can involve multiple phases, with each phase building on the previous one. In such instances different types of sampling techniques may be required at each phase. Purposive sampling is useful in these cases due to it providing a wide range of non-probability sampling techniques for the researcher to draw on. For example, critical case sampling may be used to investigate whether a phenomenon is worth investigating further, before adopting an expert sampling approach to examine specific issues further (Sharma, 2017). The researcher found themselves also incorporating elements of the snowball sampling method as it was difficult for them to find participants. As the population parameters required a very specific group of people, the researcher had to make use of referrals

alongside purposively choosing a particular group of individuals. The advantage of the snowball sampling method is that it is best suited and mostly used when members of the population are difficult to reach. The researcher only knew two participants that practice it alongside a mindfulness instructor but who unfortunately only instructed business executives. The researcher made use of these three individuals to find more participants, as well as asking them if their friends knew anyone who practice it.

Weaknesses

A particular disadvantage noticed by the researcher was the notion that looking for participants was time consuming. The researcher found it difficult to find individuals that met all the population parameters required. The combined choice of purposive sampling and snowball sampling made it nearly impossible to obtain a large population due to the parameters being very specific (du Plooy-Cilliers et al., 2014). The researcher did not know majority of her participants and therefore had to make use of referrals, contacting as many individuals as they could to find the participants. Many of the individuals that researcher contacted do not practice mindfulness and did not know of any one that do. As mindfulness is a type of meditation, it is a very personal practice and it is rare that individuals will discuss it to others. This could probably be the reason why it was difficult for the contacted individuals to know of any one that do practice mindfulness.

Sample size

In terms of establishing the sample size, practical considerations like time and cost were taken into consideration.

Limitation

The researcher experienced limitations with respect to time. Leading to the researcher deciding to limit the study in terms of not only looking for individuals in Gauteng Province, but also in terms of the sample size, only having 5 participants. Ideally, the researcher intended to have 11 participants, but due to the hardships of making contact and looking for individuals willing to participate, the researcher only managed to get hold of 5 participants. The researcher also experienced hardship in the case where at first, 9 individuals were willing to participate, but then some of the individuals chose to constantly postpone or ignore

communication, leaving the researcher with only 5 participants willing to go through the process and finalising when the interview should be conducted and so forth.

Data Collection Method

Semi-structured in-depth interview

Semi-structured in-depth is said to be especially useful in studies where the goals are exploration, discovery and interpretation of complex phenomena. Unlike formal interviews, which follow a rigid format of set questions, semi-structured interviews focus on specific themes but cover them in conversational style. This was suitable to the researcher given that the aim was to get an in-depth understanding of the phenomenon and its impact on academic performance. this style of interviewing fits perfectly with the interpretivist paradigm that the researcher followed throughout. This style of interviewing allowed the researcher to address all the themes needed to be covered, in a very elaborative manner and it allowed the researcher to gain an in-depth understanding of mindfulness as well as how the participants see it as beneficial.

Application of Data Collection Method

Step-by-Step process

The researcher started off by making contact with the participants. The researcher already knew three participants who fit into the population parameters and thus contacted them. The researcher then looked for other participants using referrals and asking other individuals, providing them the necessary information that introduced the researcher's study as well as what kind of population they are looking for based on a set list of characteristics. This led to the researcher having five participants available for the study. The researcher then contacted them, introducing their study and what they required of them as politely as they could. As the five agreed and were willing to participate, the researcher contacted them again suggesting a set time for the interviews. The researcher dedicated a full weekend to the participants, suggesting it to the participants and allowing them to choose a time that is best for them and before the interviews, a few hours before, the researcher provided them with the information sheet and the consent form so they could have a read through and see whether they are still

willing to participate. The interviews took between nine to thirty minutes each. The participant then signed and sent back the consent form. Two in particular, simply stated their verbal consent on the recording. The researcher ensured that all participants verbally state their consent before the commencement of the interview.

Data Analysis Method

Thematic Analysis

Thematic Analysis is an approach for extraction of meanings and concepts from data and includes pinpointing, examining, and recording patterns or themes. It is said that the thematic analysis method not only provides a flexible method of data analysis in qualitative research, but it also establishes the more systematic and explicit form of it without threatening depth of analysis (Blandford, 2013).

Braun and Clarke identify six phases of thematic analysis:

1. Familiarising with the data: the researcher started off by simply reading and re-reading the data, making notes of ideas that spring to mind. (Blandford, 2013).
2. Generating initial codes: the researcher began coding the entire dataset systematically and collating data that is relevant to each code. The researcher worked to define codes as labels that identify a feature of the data that appears interesting to them (Blandford, 2013).
3. Searching for themes: the researcher had to gather codes and related data into candidate themes for further analysis (Blandford, 2013).
4. Reviewing themes: the researcher had to check whether the themes work with the data, creating a thematic “map” of the analysis (Blandford, 2013).
5. Defining and naming themes: the researcher worked to refine the themes and the overall narrative iteratively (Blandford, 2013).
6. Producing the report: the researcher furthered the level of reflection on the themes, the

narrative and the examples used to illustrate themes (Blandford, 2013).

Application of Data Analysis Method

Application of The Thematic Analysis Method to the Researcher's study

The researcher firstly familiarised themselves with the data, re-reading the data while listening to the recordings as well. Through this, the researcher took notes on their notepad, as they could already identify commonalities in all the transcriptions. The researcher then moved onto the second stage which involves generating codes. The researcher in this stage pointed alphabetical letters after every commonality that was found, suggesting in essence that the first commonality was 'point A' and the second 'point b'. For instance the first commonality that was found was "Awareness" and therefore the researcher placed the letter 'A' there suggesting that it was the first commonality that was found.

The coding then allowed the researcher to find themes that results in the third stage. In this stage the researcher discovered the themes and used the highlighting option on the computer to highlight the different themes in different colours. eleven themes were discovered and so eleven colours were used to identify them. Yellow represented " the aspect of being in the moment", Purple represented the "release of stress", Blue represented "less procrastination", Red represented " better time management", grey represented "avoidance of self-judgment", dark blue represented "maintenance and noticeable academic improvement", dark purple represented "feelings of being overwhelmed prior to practicing mindfulness", dark red represented "redirection of thought processes", dark green represented "mindfulness inefficiency in reducing anxiety before meeting a deadline or before test and exams" , dark grey represented "mindfulness as a great coping mechanism for dealing with school pressures".

The fourth stage involved reviewing the themes discovered where the researcher had to check whether the themes do work with the data, creating a thematic map analysis. The researcher analysed the themes and noticed that the themes were creating a thematic map, correlating with analytical claims made in the literature review. The researcher then moved to

the fifth stage where they required to refine the themes. The eleven themes were broken down and placed as sub-themes to five umbrella themes. Each sub-theme was allocated to the associated umbrella theme. And lastly, the sixth stage is essentially this current production of the report.

Findings and interpretations of findings

Introduction

This section will look into the presentation and the interpretation of findings discovered by the researcher in terms of what perceived impact there was in terms of mindfulness and its influence on academic performance. The research problem and whether it has been solved through this research will be addressed as well as the implication of the findings in terms of the ethical implications and limitations that were considered by the researcher. The themes that emerged in using the thematic analysis method will also be elaborated and discussed in detail.

Thematic analysis

A total of 5 themes will be discussed in this section. Namely: attention regulation, self-regulation with schoolwork, Anxiety and Test anxiety, Mindfulness' impact on academic performance and perceived factors that alleviate school pressures as a result of practicing mindfulness.

Theme 1: Attention regulation

Awareness of being in the present moment

Four out five of the participants proclaimed that mindfulness allows them to be in the present moment. Participant 1 said: "I think that when it comes to mindfulness, it helps to kind of just slow down, to be in the moment (Participant 1, field notes, 2020). One of the participant explained that it is a yes and a no, explaining that mindfulness does do that, but it also allows one to be grateful of the past.

Redirection of thinking

Participants 1 and 3 out of the five participants explained the notion that mindfulness allows them to redirect their thinking, acknowledge their mind is wandering then bring themselves back to the present moment, centering their thoughts to what is currently happening to them.

Theme 2: Self-regulation with schoolwork

Breaking down school tasks

Two out of five participants explained that Mindfulness has taught them to breakdown tasks. Participant 1 said: “ it is like that kind of saying of how do you eat an elephant? You know you can’t swallow the whole thing you have got to do it bit by bit and that is kind of what mindfulness has taught me, so, you know this is your task, what can you do about it now” (Participant 1, field notes, 2020).

Better time management and less procrastination

Four out of the five participants claimed that mindfulness helps them manage their time better. Participant 1 and 2 talked about how it has also allowed them to procrastinate less and get things done one time. Participant 1 and 5 talked about how mindfulness has even helped them get things done at a much faster pace

Theme 3: Anxiety and Test Anxiety

All of the participants believe that mindfulness has helped them to release stress and feel calmer. However, participants 1 and 2 explain that it has not been effective in helping them cope with test anxiety as mind wandering still occurs and the anxiety is still present. The other participants have claimed it has been helpful. Participant 3 said: “ 100 percent like in first I had to go, uhm, I had to get academic concession, and I couldn’t write an exam, in like a normal setting with everyone in my own class, I had to write an exam on my own, I had to have, like 20 extra minutes, to write an exam because my anxiety was just so bad, that I couldn’t focus or answer questions, like in a very strict time frame, and ever since I started it (mindfulness),I have, from third year never needed, I could write with everyone, and my marks came out perfect and my anxiety, didn’t take away from the work I was putting on” (Participant 3, field notes, 2020).

Theme 4: Mindfulness’ impact in academic performance

All of the participants saw improvements in their academic performance. Participant 1 claims that as they were already performing well academically prior to practicing mindfulness, mindfulness has helped them to continue performing well. Participant 2 saw improvement in their performance from when they not practice it in first year to now practicing it in third year. Participant 4 explains that as they were doing well due to mindfulness, it led to them also performing well at school. These two participants essentially explained their perceived academic improvements and believe it is due to them practicing mindfulness.

Theme 5: perceived factors that alleviate school pressures as a result of practicing Mindfulness

Avoidance of Self-judgement

All participants explained that mindfulness has helped them to judge themselves less and acknowledge their efforts. Participant 4 claimed that mindfulness has helped them to see that there is no need to fear exams or failure as it is all temporary.

Recommended coping mechanism for University

All of the participants in this research, see mindfulness as an effective coping mechanism for university in that it has been helping them all with everyday school pressures. Participant 4 , explained that although mindfulness has not made their university life easier, it has helped them deal with the difficulty of it.

Trustworthiness of findings

It has been acknowledged that as reliability and validity are key measures in quantitative research, trustworthiness holds a significant position in the interpreting of findings when it comes to quantitative research. In addressing trustworthiness, four criteria have been proposed. The first criterion, credibility focuses on whether the findings could be believable and to what extent is it congruent with reality (du Plooy-Cilliers et al., 2014). In ensuring credibility, the researcher, purposefully chose a sample, that could best provide an answer to the research question. The participants had to meet particular requirements to take part in the study and were not randomised (du Plooy-Cilliers et al., 2014). The second criterion, transferability, addresses the extent to which the participants are typical to the phenomenon being studied. The researcher ensured this through strictly looking for participants who practice mindfulness, being fully knowledgeable on the concept, and those who have done it long enough to see its impact on academic performance. The third criterion, dependability insists on keeping a record of the decisions that were made during the research process in attempt to make the reader follow the researcher's reasoning (du Plooy-Cilliers et al., 2014). The researcher has ensured this through keeping the records of all the phases of the research, addressing what has been changed and what has remained the same with justification. The researcher has also documented the reasons for using the thematic analysis method to analyse data and how the themes were categorised and discovered. And lastly, the fourth criterion, confirmability tackles the degree to which neutrality is present and the extent

to which the findings of a study are shaped by the participants and not by researcher bias (du Plooy-Cilliers et al., 2014). The researcher has ensured this through reflecting on the study and seeing whether their belief system on the topic has influenced the findings of the study and affected the research process. As this is a qualitative study, objectivity is not aimed and so opinions are expressed. The researcher, may have had their own opinions on the study but has ensured to fully give the voice to the participants, also ensuring that strong relationships are not formed with the participants in order for them to remain authentic in providing their opinions (du Plooy-Cilliers et al., 2014).

Conclusion

Research Question, Problem and Objectives addressed

Research Problem

The researcher previously made a problem statement that explained the notion that in South Africa, what is not known is whether the integration of MBSR programmes in South African tertiary institutions could be of benefit to students as it was indicative through literature that lower levels of academic anxiety and test anxiety could potentially improve performance overall. The researcher through the interviews discovered that although practicing mindfulness has been efficient in alleviating daily anxieties, to some of the participants, its practice is still not efficient in lowering test anxiety. Out of the five participants, three saw its efficiency in lowering test anxiety. The researcher through conducting the interviews also noticed the manner in which all the participants spoke highly of meditative mindfulness and how it has been beneficial to them in coping with the difficulties presented by tertiary institutions. Thus, the implementation of MBSR programmes in South African tertiary institutions should be seen as a consideration. A prominent theme was the idea that mindfulness allows the participants to manage their time better, which is a necessity in learning to come with school stressors and keeping up to date.

Research Question

What is the perceived impact of mindfulness on academic performance?

Through conducting a semi-structured interview with the chosen 5 participants, the researcher asked each one of them about their perceived impact of mindfulness on their academic performance. Each of them explained that its practice has improved their academic performance. Two of the participants related the improvement to the idea that due to managing their time better, and always getting things done on time, improvements in their marks arose. One of the participants explained that as they were internally happy due to its practice, better school performance was led by so. Two of the participants explained that they had seen change in their academic performance from their first years to their third years, as they started mindfulness. It is important to note however, that these are their perceived improvements and not factual information.

Objective One: To assess whether mindfulness has been effective in terms of alleviating school stressors

Findings from Literature

It has been explained that mindfulness training involves developing a greater sensitivity to bodily signals, both those of energy and those of fatigue. Through the usage of mindfulness based stress reduction programmes, students may be better at noticing when they still have the energy and when they are exhausted and as a result, strike a healthier balance between time used in studying and time used in other activities (Dundas, Thorsheim, Hjeltness & Binder, 2016).

Findings from Research

The researcher discovered through the interviews that all of the participants saw that mindfulness aided in releasing stress and feeling calmer. Two of the participants explained how it was a great coping mechanism for university. Four of the participants claimed that it was efficient in allowing them to manage their time better and two of the participants claimed that it has also taught them the necessity of breaking down tasks and not try to do everything at once.

Objective Two: To assess whether it has helped those who practice it to maintain focus when approaching whichever task at hand

Findings from Literature

It has been stipulated that in mindfulness practice, individuals are able to manage their attentional resources, consciously directing attention to observing any aspect of their experiences within their awareness; be it breath, sounds, thoughts or emotions. It is explained further that each time it is noticed that attention has strayed from the intended subject of focus, it is re-directed back to the subject. This thus provides skills necessary to focus and get challenging school tasks done without worry, which can then improve their academic performance (White, 2014).

Findings from Research

The participants saw themselves as being able to redirect their thinking and bring their focus into one place. All of the participants talked about mindfulness being able to allow one to release stress, bring about calmness, which reduces mind wandering and learn to dedicate time to what is needed to be done.

Objective Three: To assess whether it has helped the participants with self-regulation, in terms of being disciplined when it comes to school work and getting things done

Findings from Literature

It has been argued that youths with good self-regulation are seen to have much more adaptive functioning when it comes to dealing with academic performance, social competence, problem behaviours, depression, and anxiety, compared to their counterparts with what is perceived as unfit self-regulation. It has been proven that mindfulness enhances self-regulation (Wait, 2017).

Findings from Research

The researcher through the research discovered that four out of the five participants have agreed to this literature, claiming that mindfulness has been effective in getting things done on time and lessening procrastination. However, one of the participants claimed that it has not been effective to them in enhancing self-regulation when it came to their school work.

Objective Four: To assess whether it has helped the participants combat the instabilities of procrastination

Findings from Literature

In a study, it was discovered that mindfulness holds the potential to be a fundamental step in the self-regulation process to initiate actions towards goals when procrastination is the habitual coping response (Dionne, Gagnon, Carboneau, Gregoire, Hallis & Balbinotti 2016).

Findings from Research

The researcher discovered that better time management was a prominent theme in the study. Four of the participants claimed that it has helped to in essence be punctual and get things done on time. This thus explains its ability to combat procrastination.

Objective Five: To assess whether it has helped the participants lessen their anxiety and test anxiety that rises from fearing to fail due to previous failed tasks

Findings from Literature

Much research has acknowledged test anxiety disrupts working memory, which is the cognitive system consisting of executive attention during performance. The impact of intensive mindfulness meditation on various performance tasks has been researched and findings suggests that individuals who participated in mindfulness training had enhanced sustained attention and working memory capacity (Altairi, 2014).

Findings from Research

The researcher discovered that although mindfulness holds the power to alleviate anxiety, test anxiety has been difficult for some of the participants, and mindfulness to them is not as efficient in alleviating that kind of anxiety. Out of the five participants, three have stated that it has helped them and the other two have stated that test anxiety is somewhat inevitable and so it has not been as efficient in that area.

Anticipated Contribution of the study (Implication of findings)

This study aims to provide a deeper understanding of mindfulness and the manner in which it can potentially impact academic performance. the study aims to target the population that practice mindfulness and use in-depth interviews to thoroughly understand how it has impacted their lives, particularly at school and how they have been taught to face challenging school tasks or situations through its practice. Previous literature seems to glorify the practice of mindfulness and the power of living in the present moment with acceptance and non-judgementally. The literature further stipulates that mindfulness has the capacity to also better one's academic performance as it helps one to approach challenging school tasks with a more positive mindset instead of anxiety and fear of failure due to previous failed tasks. As it has been found that the targeted participants view mindfulness in the same manner, reaping its benefits and seeing its impact on academic performance, it is now probable that this research may be useful in solving the problem that concerns the notion that internationally, mindfulness programmes are placed in tertiary institutions to help the students with anxiety and school pressures while in South Africa, no tertiary institutions have been seen to integrate mindfulness based stress reduction programmes.

Ethical Consideration

Ethical consideration for participants

- Informed consent: participants were informed that they are taking part of this study, understanding important aspects of what they were required to do and how their information will be used. Their consent forms were provided in writing (du Plooy-Cilliers et al., 2014).
- Confidentiality: as participants may want their information to be protected, the researcher committed to not reveal their information under any circumstances and explained that the information is only for school purposes (du Plooy-Cilliers et al., 2014).

- Switch from face to face to online interviews: the researcher ensured success in the switch to video calling and instant messaging. The researcher also managed to record the interviews under those circumstances (du Plooy-Cilliers et al., 2014).
- Avoiding harm: the notion that the research may upset the participants was considered and the researcher ensured that they do not victimize or belittle the targeted participants (du Plooy-Cilliers et al., 2014).

Ethical considerations for the researcher

- Falsifying information: the researcher made sure to not deliberately fabricate or change data (du Plooy-Cilliers et al., 2014).
- Bias: the researcher ensured that they conducted the research in a non-biased manner, accepting the findings as is and not try to distort them to match their belief, for instance, the researcher did not distort the results to match their idea of Mindfulness being fully beneficial in reducing anxiety under exam circumstances when found that it was not (du Plooy-Cilliers et al., 2014).
- Inappropriate research methods: the researcher ensured that the methods being used to conduct the study were the most appropriate to answer the research question. The researcher also ensured that their methods did not harm the participants in any way (du Plooy-Cilliers et al., 2014).

Limitations of the study

- Access to participants: this is particularly due to the fact that in South Africa, the covid-19 outbreak is causing individuals to take more precautions and avoid contact. This meant that the researcher had to find other ways to access the participants. Due to not being able to physically meet the participants, the researcher used instant messaging, zoom calls and Whatsapp video calls to plan and conduct the interviews
- It has been acknowledged that qualitative research is often criticised as biased, small scale, anecdotal, and/ or lacking rigor. It was therefore the duty of the researcher to carry the research properly so that it is unbiased, in depth, valid, reliable, credible and rigorous, still having a way of assessing the extent to which claims are supported by convincing evidence (Anderson, 2010).

- The researcher experienced a few challenges in getting a hold of participants, leaving them with only five participants to interview. The researcher understood that this would result in limited results as few participants were interviewed.
- Another limitation was the notion that all the participants were females leaving less room for diversity and different perspectives when it came to the topic

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ANNEXURES

Annexure A- Consent Form

EXPLANATORY INFORMATION SHEET AND CONSENT FORM FOR PARTICIPANTS

To whom it may concern,

My name is Keza Kayiranga and I am a student at Varsity College Sandton. I am currently conducting research under the supervision of Dr. John Hunter about Exploring the impact of mindfulness on academic performance. I hope that this research will enhance our understanding of Mindfulness and its impact on academic performance, seeing if it could serve

as a necessary tool to be used in order to alleviate school stressors and anxiety that comes from meeting deadlines or when writing tests and exams. It aims to suggest how mindfulness works and whether its mindfulness based stress reduction programme could be integrated in South African universities with the hopes of benefiting the students in finding ways to reduce anxiety.

I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.

What will I be doing if I participate in your study?

I would like to invite you to participate in this research because your experience concerning your meditative mindfulness journey and how it has impacted your academic performance will greatly contribute to my findings that will evaluate the level at which mindfulness has the potential to influence academic performance. If you decide to participate in this research, I would like to conduct an in-depth interview with you where I will ask you a list of open-ended questions.

You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.

Are there any risks/ or discomforts involved in participating in this study?

Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your meditative mindfulness journey and how it has impacted your academic performance. If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.

Do I have to participate in the study?

- Your inclusion in this study is completely voluntary;
- If you do not wish to participate in this study, you have every right not to do so;
- Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.

Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody

will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at Varsity College Sandton, will have access to your interview information. I would like to use quotes when I discuss the findings of the research but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished all interviews, I will write summaries to be included in my research report,

which is a requirement to complete my BA Honours degree in Psychology. You may ask me to

send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed.

My contact details are as follows:

Keza Kayiranga

The contact details of my supervisor are as follows:

Dr John Hunter

Consent form for participant 1

I, [REDACTED], agree to participate in the research conducted by Keza Kayiranga about Exploring the impact of mindfulness on academic performance

This research has been explained to me and I understand what participation in this research will involve. I understand that:

1. I agree to be interviewed for this research.
2. My confidentiality will be ensured. My name and personal details will be kept private.
3. My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research.
4. I may choose not to answer any of the questions that are asked during the research interview.
5. I may be quoted directly when the research is published, but my identity will be protected.

Signature Date

14/08/2020

Consent form for audio-recording/ video recording

I, [REDACTED], agree to allow (your name) to audio record my interviews as part of the research about (insert aim of research/ brief summary of exactly what you are researching).

This research has been explained to me and I understand what participation in this research will involve. I understand that:

1. My confidentiality will be ensured. My name and personal details will be kept private.
2. The recordings will be stored in a password protected file on the researcher's computer.
3. Only the researcher, the researcher's supervisor and possibly a transcriber (who will sign a confidentiality agreement) will have access to these recordings.

Signature Date

14/08/2020

Annexure B- Interview Schedule/ Questionnaire

Interview schedule

- Greetings in terms of how the person is doing
- Asking the interviewers if they have read through the information sheet and whether they are fine with everything and that they agree to participate

Asking the 11 open-ended questions assigned for the interview

The questions

1. What is mindfulness to you?
2. In what ways does meditative mindfulness help you regulate your emotions?
3. Through practicing meditative mindfulness, do you see yourself living in the present moment and only focusing on what is currently happening to you?
4. Has meditative mindfulness helped you approach challenging school tasks with acceptance and non-judgmentally?
5. Through practicing meditative mindfulness, do you see that you are able to focus more on your schoolwork?
6. Has meditative mindfulness helped you be more disciplined when it comes to schoolwork?
7. Has meditative mindfulness helped you deal with anxiety that may often come before meeting a deadline or during test and exams?
8. Has meditative mindfulness helped fear less of academic failure if having dealt with previous failed tasks?
9. Have you noticed improvements in your academic performance due to practicing meditative mindfulness?
10. Would you say that practicing meditative mindfulness has made your experience at university easier?
11. If so, why?

Final thanks for agreeing to participate

- Thanking the participants for agreeing to participate, wishing them well and saying goodbye.

Annexure C- Ethical Clearance Letter



29 July 2020

Student name: Keza Kayiranga

Student number: 17667132

Campus: IIE's Varsity College Sandton

Re: Approval of Honours in Psychology Proposal and Ethics Clearance

HONOURS/PGDIP ETHICAL CLEARANCE LETTER

Your research proposal and the ethical implications of your proposed research topic were reviewed by your supervisor and the campus research panel, a subcommittee of The Independent Institute of Education's Research and Postgraduate Studies Committee.

There are some aspects that you still need to address in your proposal. You will need to address these aspects in consultation with your supervisor before you may proceed (see below):

Please discuss with your supervisor/navigator/lecturer how you will address these issues listed below:

Please note: Your fieldwork may only proceed once you address the following issues:

- Please make all the changes suggested/recommended by your supervisor.
- Please wait for an IIE letter approval if you plan to conduct research on an IIE site/staff/students.
- Change "university" to "tertiary institution".

In the event of you deciding to change your research methodology in any way, kindly consult your supervisor to ensure all ethical considerations are adhered to and pose no risk to any participant or party involved. A revised ethical clearance letter will be issued.

We wish you all the best with your research!

GENERAL CONDITIONS TO BE FULFILLED IN RELATION TO RESEARCH

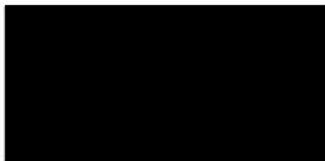
Permission is granted to proceed with the above study subject to the conditions listed below being met and may be withdrawn should any of these conditions be flouted.

Please note: The panel has not considered the merits, accuracy or ethical soundness of the research. The only merits examined are the use of The IIE as a sample.

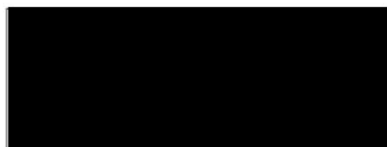
Permission is granted subject to the following conditions:

1. The researcher(s) will need to obtain informed consent in writing from all of the participants in his/ her sample if the study is not anonymous.
2. The researcher(s) may only use the data collected for research purposes and in no other way.
3. Photographs of human subjects may only be taken if relevant to the research, informed consent was obtained, and even with informed consent, the photographs may not be published on any online platforms.
4. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
5. No names or identifying information of participants may be used within the research and the research must be voluntary.
6. Please make it clear that the information will not be used punitively in any way and participants may in no way be counselled/advised based on this.

Supervisor: Dr John Hunter



Campus Postgraduate Coordinator (CPC):



JENNA-LEE RAMNARAIN

Annexure D: Example of Data Collected

Transcription example with Participant 1

Keza: (sound to agree) So through practicing it, ofcourse as you do, do you see that your able to focus more on your school work when you dedicate time to do it ? do you see yourself like being able to do what you intending yourself to do in that momenthh

Participant 1: uhm... yes, yeah I would definitely say so, so you know uhm, like, okay so for an example, you wake up that day and, you know that uhm you've got to dedicate time, to varsity, in amongst whatever you may need to do, you know we all have our different things or part time job or whatever it may be and uhm I think that when you wake up, and your really trying to be mindful of the day, of the things you need to do, but also realistically, uhm then you definitely, are able to set like more time aside, because you, you not over thinking anything, you are not wasting time thinking about it and you not thinking about how to plan it, you kind of just being mindful of that day and saying oh okay, so you know I am going to have breakfast, I am going to get dressed am going to go for my run, and then ah you know I am going to set, like lets say two hours aside, or whatever it is to focus on my varsity work, and then do whatever, have my relaxation time because you know that is also important, but I find that you know instead of pondering on everything I have to do, and be like okay, I have got so much to do today, that's when I achieve less, but when I am like okay this is my plan for today, cool, but I am mindful in each of those activities and, each of those exercises, it lands up you know, kind of almost giving me multiplying my time, so it does extend my day, I do things quicker and faster, and give myself more time and then at the end of the day I am like oh, wow okay,

Keza: Yes

Participant 1: like not actually what I even thought I was able to, uhm so yeah,

Keza: (sound to agree)...okay has med... this is the 6th question, has meditative mindfulness helped you become more disciplined when it comes to school work, particularly, not anything else, just school work? have you become more disciplined because of mindfulness?

Participant 1: uhm, so I have always been a very dedicated and disciplined student before I even started practicing mindfulness... uhm...but I think .. uhm ... you kskswenow as I said we all have our moments where we procrastinate and where we put it off... uhm and I think that since I have started practicing that definitely happened less, so I have been procrastinating less so I think in a way its definitely been helpful in becoming more disciplined if I look at it in that sense

Annexure –Concept Document table

Research Purpose/ Objective	Primary Research Question	Research Rationale	Seminal Authors/ Sources	Literature Review – Conceptual Framework	Paradigm	Approach	Data Collection Method(s)	Ethics	Key Findings	Recommendations
1.To assess whether mindfulness has been effective in terms of alleviating school stressors 2. The researcher intends to gain a deeper understanding of mindfulness through evaluating the experiences of those who practice it and whether they noticed that it has had	What is the perceived impact of mindfulness on academic performance ?	1. this study will answer whether mindfulness is beneficial for students 2. it will assess whether mindfulness is truly the answer in terms of reducing pressure and how students view schoolwork	1.Shapiro et al (2006)- three axioms theory 2. Hözel et al (2011)- self-regulation facilitative phase model theory	<u>Supporting literature</u> Theme 1: Mindfulness Theme 2: cognitive test anxiety Theme 3: the mechanism of attention Theme 4: the mechanism of self-regulation Theme 5: Mindfulness based stress reduction program <u>Opposing literature</u> Theme 1: mindfulness based stress reduction programme Theme 2: Mindfulness	1.Paradigm - Interpretivism 2.Epistemology - the researcher intends to not generalise the results beyond the context in which it is conducted. It will be of benefit to south African universities only. 3.Ontology the researcher believes that reality is a social construction that it is dependent on how people perceive it to be. 3. Axiology the researcher value the complex understanding of unique realities.	1. Qualitative approach to study Population Population Parameters: 1. Individuals must have at least a year of university experience 2. Students must be in south Africa 3. student must practice mindfulness	1. The usage of in-depth interviews	1. avoiding harm 2. informed consent 3. swith from face-to-face to online interviews 4. confidentiality 5. falsifying information 6. distorting results 7. Bias 8. Inappropriate research methods	1. The researcher Found that mindfulness really works and is efficient in reducing anxiety and improving academic performance	Further research is needed in order to find out whether Mindfulness and its integration in south African tertiary institution is suitable It is also important for researcher to conduct further studies that assess whether the practice of mindfulness is applicable to all south African cultures The further studies should also be inclusive, addressing all genders, cultures and races

*in operationalising
and measuring
mindfulness*

Research Problem	Secondary Questions/ Hypotheses/ Objectives	Key Concepts	Key Theories	
1. The researcher intends to find a solution that tackles anxiety and test anxiety when it comes to school as it impedes academic performance	1. to study the theory of mindfulness and its established impact 2. to assess whether it has been effective in alleviating school stressors	1. Cognitive test anxiety 2. Emotion-regulation 3. Mindfulness meditation 4. Self-regulation	1. the three 'axioms' theory 2. the self-regulation facilitative phase model theory	
Sampling	Data Analysis Method(s)	Limitations	Key Contribution	
1. non-probability sampling 2. Purposive sampling Size: 6 to 10 participants	1. Unit of Analysis: individuals that go to university 1. Data Analysis Method: Thematic analysis	1. the researcher will have to ensure that they are unbiased and do not display and do not distort results to justify the way they feel about mindfulness 2. the covid-19 crisis. Connection problems could arise with conducting online interviews 3. the research findings can not be generalised as it can not statistically prove the notion that mindfulness works	1. The researcher hopes to grab the attention of universities in attempt to provide a solution when it comes to bettering academic performance and reducing the pressure of students	

								<i>4. only femaie participants took part in the study</i>	
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