

Impact of Mindset Priming on Entrepreneurial Intentions after Unemployment

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ABSTRACT

The psychological impact of unemployment on risk aversion suggests that investment in education to increase entrepreneurial intentions amongst unemployed workers is unlikely to succeed without addressing this aversion first. Recent studies in construal level suggest that abstract thinking can reduce risk aversion. Furthermore, mindset theory of action phases research shows that people in an implemental mindset viewed risk factors more positively than people in a deliberative mindset.

Based on this premise, this research study tests the impact of mindset of action phases and construal level theory on the retraining choice and entrepreneurial intentions of unemployed workers.

Recently unemployed workers were identified from the database of a large retail bank in Southern Africa. We experimentally manipulated the mindset of 144 respondents using a well-known priming technique, and then gave a choice of entrepreneurial or general training. Participants also completed measures of entrepreneurial intention, attitude toward entrepreneurship, and construal level disposition. After confirming construct reliability and discriminant validity, statistical hypothesis tests were utilised to analyse the data.

The study results show that implemental (concrete) mindset priming increases the probability of choosing entrepreneurial retraining when attitude toward entrepreneurship is high, and conversely that deliberative (abstract) mindset priming increases the probability of choosing entrepreneurial retraining when attitude toward entrepreneurship is low.

In addition to adding to entrepreneurial intention, construal level theory, and mindset theory of action phases literature, this research can help policy makers and intuitions maximise investments in entrepreneurship by improving the take-up of entrepreneurial training by recently unemployed individuals.

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TABLE OF CONTENTS

ABSTRACT	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
1. INTRODUCTION	1
1.1. Study background	1
1.2. Theoretical relevance	3
1.3. Study Contributions	7
1.4. Research Aims and Objectives	7
1.5. Organisation of the dissertation	8
2. LITERATURE REVIEW	10
2.1. Overview	10
2.2. Entrepreneurship: A way out of Unemployment	10
2.3. Unemployment and Risk Aversion	13
2.3.1. Prospect theory and disappointment aversion	15
2.4. Human Capital Theory	16
2.4.1. Human Capital Investment (HCI)	17
2.4.2. Human Capital Investment Outcomes (HCIO)	19
2.4.3. Return on Investment (ROI)	20
2.5. Entrepreneurial Intentions	21
2.5.1. Theory of Planned Behaviour	22
2.5.2. Entrepreneurial Event Model	24
2.5.3. From Entrepreneurial Intention to Entrepreneurial Action	25
2.6. Mindsets	27
2.6.1. Mindset Theory of Action Phases	28
2.6.2. Action Identification Theory	32
2.6.3. Construal Level Theory	34
2.7. Hypothesis and Conceptual Framework	37
3. RESEARCH METHODOLOGY	41
3.1. Overview	41
3.2. Research Design	41
3.2.1. Construal Level and Action Phase Mindset Priming	43
3.2.2. Retraining Choice	46
3.2.3. Attitude Toward Entrepreneurship	46

3.2.4.	Entrepreneurial Intention	47
3.2.5.	Construal Level Disposition	49
3.3.	Sampling	51
3.3.1.	Required Sample Size	52
3.3.2.	Sample Selection	53
3.3.3.	Data Collection	53
3.4.	Data Analysis Methods	55
3.5.	Research Criteria	57
3.5.1.	Attitude Toward Entrepreneurship and Entrepreneurial Intention	58
3.5.2.	Construal Level Disposition	59
3.5.3.	Control and Treatment Groups Demographic Profile Similarity	61
3.6.	Research Limitations	63
3.7.	Research Ethics	64
4.	PRESENTATION OF RESULTS	66
4.1.	Descriptive Statistics	66
4.2.	Hypothesis 1: Mindset Priming and Retraining Choice	68
4.3.	Hypothesis 2a: Attitude and Entrepreneurial Intention	70
4.4.	Hypothesis 2b: Attitude and Retraining Choice	71
4.5.	Hypothesis 2c: Entrepreneurial Intention and Retraining Choice	71
4.6.	Hypothesis 3: Mindset Priming, Attitude and Retraining Choice	72
4.7.	Hypothesis 4: Mindset Priming and Construal Level Disposition	76
4.8.	Hypothesis 5: Construal Level Disposition and Entrepreneurial Intention	77
4.9.	Demographic Variables (Post-Hoc Analysis)	78
4.10.	Correlations	80
5.	DISCUSSION	81
5.1.	Overview	81
5.2.	Mindsets	82
5.2.1.	Mindsets and Construal Level Disposition	83
5.2.2.	Educational Level and Construal Level Disposition	86
5.3.	Retraining Choice	87
5.3.1.	Mindsets and Retraining Choice	88
5.3.2.	Attitudes and Retraining Choice	90
5.3.3.	Mindsets, Attitudes and Retraining Choice	92
5.4.	Entrepreneurial Intentions	99
5.4.1.	Attitudes and Intentions	101
5.4.2.	Retraining Choice and Intentions	102

5.4.3.	Construal Level Disposition and Intentions	103
5.4.4.	Gender, Attitudes, and Intentions	105
6.	CONCLUSION	107
6.1.	Overview	107
6.2.	Summary of Main Findings	107
6.3.	Mindset Theory Implications	110
6.4.	Entrepreneurial Intentions Implications	113
6.5.	Practical Implications: Entrepreneurship Promotion to Unemployed Workers	116
6.6.	Limitations and Future Research	119
7.	REFERENCES	121
8.	APPENDICES	135
8.1.	Deliberative (Abstract) Survey	135
8.2.	Implemental (Concrete) Survey	144

List of Figures

Figure 1: Fear of failure rate of those who show good entrepreneurial opportunities (GEM, 2023) ..	14
Figure 2: Human Capital Investment Model synthesized from Unger et al. (2011), Martin et al. (2013), Marvel et al. (2016), Wikland et al. (2019) and Rahm (2019).	17
Figure 3: Theory of Planned Behaviour (Ajzen, 1991)	22
Figure 4: Entrepreneurial Event Model (Krueger et al., 2000a).....	25
Figure 5: Entrepreneurial Event Model (Dlamini & Botha, 2023).....	26
Figure 6: Rubicon Model of Action Phases (H. Heckhausen & Gollwitzer, 1987)	29
Figure 7: Hypothesis Framework	40
Figure 8: Predicted Probability of Choosing Entrepreneurial Training	74
Figure 9: % Choosing Entrepreneurial Training by Mindset and Attitude Groups	76
Figure 10: Correlations.....	80
Figure 11: % of Public viewing entrepreneurship as a good career choice (GEM, 2023)	97
Figure 12: Significant Spearman correlations: attitude toward entrepreneurship, entrepreneurial intention, mindset priming and retraining choice	115

List of Tables

Table 1: Attitude Toward Entrepreneurship.....	47
Table 2: Entrepreneurial Intention	48
Table 3: Behaviour Identification Form	49
Table 4: Attitude Toward Entrepreneurship and Entrepreneurial Intention CFA Fit Index.....	58
Table 5: Attitude Toward Entrepreneurship and Entrepreneurial Intention Factor Loadings	58
Table 6: Behaviour Identification Form CFA Fix Index	60
Table 7: Behaviour Identification Form Factor Loadings	60
Table 8: Gender & Mindset Group.....	61
Table 9: Age & Mindset Group.....	62
Table 10: Income (before unemployment event) & Mindset Group.....	62
Table 11: Highest Education Level & Mindset Group	63
Table 12: Descriptive Statistics	66
Table 13: Retraining Choice and Mindset Priming Distribution	67
Table 14: Entrepreneurial Intention, Attitude Toward Entrepreneurship, and Construal Level Disposition Distributions.....	68
Table 15: Mindset Priming and Retraining Choice	69
Table 16: Entrepreneurial Intention and Attitude Toward Entrepreneurship Correlation	70
Table 17: Attitude and Retraining Choice	71
Table 18: Entrepreneurial Intention and Retraining Choice.....	71
Table 19: Mindset Priming, Attitude and Retraining Choice Logistic Regression	73
Table 20: Low, Medium, High Attitude Toward Entrepreneurship Contingency Tables	74
Table 21: Mindset Priming and Construal Level Disposition	77
Table 22: Construal Level Disposition and Entrepreneurial Intention Correlation.....	78
Table 23: Education and Construal Level Disposition Post Hoc Test	79
Table 24: Gender and Entrepreneurial Intention Post Hoc Test	79
Table 25: Gender and Attitude Toward Entrepreneurship Post Hoc Test.....	79
Table 26: Items removed from the Behaviour Identification Form in the current research study	84
Table 27: Items remaining in the Behaviour Identification Form in the current research study	85

1. INTRODUCTION

1.1. Study background

In its 2030 agenda for sustainable development, the United Nations underlines the importance of the promotion of entrepreneurship and self-employment in eradicating poverty (United Nations, 2015). This goes beyond the fostering of a few high growth entrepreneurial ventures aimed at economic growth.

Although lifestyle entrepreneurship contributes less to the economy than high growth entrepreneurial ventures, it helps reducing pressure on social welfare systems. Lifestyle entrepreneurs also enjoys higher job satisfaction and well-being (Rotemberg-Shir, 2015; Shir, Nikolaev, & Wincent, 2018). Lifestyle entrepreneurship defined here as ventures providing a stable income stream to the entrepreneur given small reinvestments but with limited scope or desire for scaling operations (Kuratko, 2016; Morris, Neumeyer, Jang, & Kuratko, 2018; Morris, Neumeyer, & Kuratko, 2015). Through paying local taxes and reinvesting in local communities, smaller lifestyle ventures also stabilises local economies (Morris et al., 2015).

Moreover, even though high growth entrepreneurial ventures undeniably significantly contribute to social and economic development, given the many pivots in entrepreneurial ventures, we cannot predict which venture will succeed or fail (Kuratko, 2016; Morris et al., 2015), and any entrepreneurial exposure, even failure, increases an entrepreneur preparedness for possible future high growth entrepreneurial opportunities (Cope, 2011). Previous research has shown that firm survival and growth between opportunity and necessity entrepreneurs are not significantly different after adjusting for relevant education (Block & Sandner, 2009).

Despite the widespread interest in entrepreneurship, decades of entrepreneurship education research has borne modest returns, with training interventions yielding mixed results

(Anosike, 2019; Cho & Honorati, 2014; Martin, McNally, & Kay, 2013; Unger, Rauch, Frese, & Rosenbusch, 2011). In addition, entrepreneurship promotion interventions are not yielding sufficient results, with very few unemployed individuals choose to take the leap into entrepreneurship (OECD/The European Commission, 2023). The study reports that less than 3% of job seeking unemployed individuals in the European Union said that they would like to start a business (OECD/The European Commission, 2023).

The Organization for Economic Cooperation and Development (OCED) further highlights that there are 34.1 million “missing” entrepreneurs in OECD countries, defined here as those who could be potential entrepreneurs but has some motivational, volitional or real barrier to overcome (OECD/The European Commission, 2023). With high global unemployment rates, improvement in governmental and non-governmental entrepreneurship promotion is sorely needed.

Although no single factor explains entrepreneurial success, two key factors are ability to tolerate ambiguity and low loss or risk aversion (Chatterjee & Das, 2015; Koudstaal, Sloof, & Praag, 2016). Risk aversion defined here as preferring outcomes with low uncertainty (Werner, 2008).

Unfortunately research suggests that not only does scarcity (poverty) have a significant psychological impact (Spears, 2011), but it specifically worsens a person’s ability to deal with ambiguity (Li, 2017). In addition to base levels of risk aversion formed during childhood, life experiences such as unemployment is also linked to higher levels of risk aversion (Caner & Okten, 2010; Dvouletý, Mühlböck, Warmuth, & Kittel, 2018; Hetschko & Preuss, 2020).

In a recent Global Entrepreneurship Monitor survey (GEM, 2023) of 49 countries, more than a third of the public in 46 countries who saw good entrepreneurial opportunities in their local area, indicated that they would not start a business for fear it might fail. In 13 countries including South Africa, India, Canada and the United Kingdom, the fear of failure was more than 50%. This is despite the high status of entrepreneurship in these countries. These levels of fear have remained stable for many years.

Consequently, investment in education and interventions to increase entrepreneurial intentions and success amongst the poor or unemployed is unlikely to succeed without addressing risk aversion first.

Preliminary research suggest that risk aversion and ambiguity tolerance is malleable (Bouchouicha & Vieider, 2019; Endres, Camp, & Milner, 2015). Moreover, experiments on the malleability of loss aversion point towards a way of creating choice architecture (framing) to reduce loss aversion (Vosgerau & Peer, 2016). Moreover, risk aversion is mediated by moving from concrete thinking to global, holistic or abstract thinking (Lermer, Streicher, Sachs, Raue, & Frey, 2016).

1.2. Theoretical relevance

This research dissertation draws upon models from economics of education, entrepreneurial action, and social psychology. Specifically, this study will focus Human Capital Theory (HCT) as a framework for maximising investments in entrepreneurial promotion, the Theory of Planned Behaviour (TPB) and Entrepreneurial Event Model (EEM) as frameworks for investigating entrepreneurial intention, Construal Level Theory (CLT) and Mindset Theory of Action Phases (MAP) as frameworks for investigating abstract thinking as a way to reduce risk aversion. These theories are evaluated deductively in this dissertation.

Firstly, the basic premise of HCT is that investment in education, training/experience, and acquisition will yield returns in the form of human capital outcomes, namely knowledge, skills, and abilities (Marvel, Davis, & Sproul, 2016; Unger et al., 2011).

Human Capital Theory has developed to influence most microeconomic fields, and specifically is seen as a key model to explain the impact of entrepreneurial education on entrepreneurial success (Anosike, 2019; Fossen & Büttner, 2013; Martin et al., 2013; Marvel et al., 2016; Rahm, 2019; Unger et al., 2011). Success here is not just defined as firm size, survival and profitability, but also entrepreneurial well-being. Several studies have shown that there is a positive correlation between human capital investment and entrepreneurial success (Martin et al., 2013), but results remain inconsistent given moderators (Anosike, 2019). Specifically the type of human capital investments (education), context of the firm,

country and culture, and the choice of success measure mediates the relationship between human capital investment and entrepreneurial success (Shirokova, Tsukanova, & Morris, 2018; Unger et al., 2011).

In their meta analysis of 70 independent samples (N=24,733) over three decades of research, Unger et al. (2011) shows the correlation between human capital investments and entrepreneurial success is actioned through human capital outcomes. Similarly Martin et al. (2013) and Rahm (2019) illustrates that investment in entrepreneurship related human capital leads to entrepreneurship related assets, which leads to entrepreneurship outcomes. Human capital outcomes in entrepreneurship research has been expanded to include constructs such as decision making (Marvel et al., 2016). In their review of 79 studies Martin et al. (2013) categorises entrepreneurship-related human capital assets into three categories: skills, perceptions, and intentions. Therefore, returns on human capital investments can be maximised by measuring impacts on intention, perceptions and skills.

Intention is a representation of the direction of future action which affects individuals' choices and behaviour (Fayolle et al., 2015). The theory of planned behaviour was originally conceptualised by Ajzen (1991) as an expansion to the theory of reasoned action. It provides a model to link perception; individual attitudes, social norms, and perceived behavioural control (self-efficacy and controllability) with entrepreneurial intention, and entrepreneurial behaviour or action. There has been many updates to the model, but the basic premise remains robust (Fayolle et al., 2015; Krueger, 2017; Tornikoski & Maalaoui, 2019; Zaremohzzabieh et al., 2019).

The theory of planned behaviour and the entrepreneurial event model is very similar, with only subjective norms being excluded and precipitating event added to the latter. The entrepreneurial event model as envisaged by Shapero and Krueger brings inertia into the equation of human behaviour (Krueger, Reilly, & Carsrud, 2000a). In other words, people likely do not change until an event interrupts the inertia, for example inheriting money might spark someone to become an entrepreneur. Desirability, feasibility and propensity to act is closely related to personal attitudes, self-efficacy and perceived behavioural control (Krueger et al., 2000a; Schlaegel & Koenig, 2014; Vodă & Florea, 2019). The literature review addresses both theories due to the ongoing debate in contemporary academic research.

The key skill that we will be investigating is abstract thinking. Abstract thinking can be defined as global, holistic information processing, i.e. seeing the big picture, and has been linked to cognitive flexibility (Bazzy, Smith, & Harrison, 2019; P. K. Smith & Trope, 2006; Williams, Stein, & Galguera, 2014).

Abstract thinking has also been linked with a paradoxical mindset. A paradoxical is a mental framework that recognises and accepts the simultaneous existence of contradictory forces, that “leads to the flexibility to look at a problem from various different opposing angles as well as tolerance for different perspectives” (Miron-Spektor & Paletz, 2017). Moreover, a paradoxical mindset enable abstract thinking, and has been shown to positively influence creativity and innovation (Miron-Spektor & Paletz, 2017). Zhang & Han (2019) in a study of paradoxical leader behaviour of top managers showed that that paradoxical leader behaviour predicted entrepreneurial tendencies toward risk-taking, innovativeness, and proactivity in corporates.

The study of the paradoxical mindset have also shown potential to offer insights into the intuition-analysis tensions in entrepreneurship and innovation, and the role of optimism in creativity and escalation of commitment / tenacity (J. Keller & Sadler-Smith, 2019; Slesman, 2019).

Abstraction has also been shown to be linked to self-efficacy, desirability and entrepreneurial intentions, specifically that abstraction helps individuals overcome low levels of confidence in their entrepreneurial abilities (Bazzy et al., 2019). Donaldson et al. (2021) in a review of recent entrepreneurial intention research suggests that abstract thinking and psychological distances within construal level theory might be a promising avenue to study entrepreneurial intentions from a temporal viewpoint.

Given that entrepreneurs must both be aware of detailed, rational aspects of their ventures, and maintain an overall view of vision and strategy, and need to “zoom in and out”, cognitive flexibility is required (Bazzy et al., 2019; Fayolle & Liñán, 2014). Moreover, successful entrepreneurship needs tenacity given the many ups and downs, and abstract thinking has been shown to positively shift the valence of experience, specifically improving evaluations of positive and negative experiences (Williams et al., 2014).

Lastly, we turn to CTL and MAP as frameworks for studying abstract thinking.

Fundamentally, construal level theory posits that the more distant an object, the more likely it will be thought of abstractly, and the closer an object, the more likely it will be thought of concretely (Trope & Liberman, 2010). Whereas abstract thoughts are focused on the global and the why of things, concrete thoughts are focused on details and the how of things reflect general, gist-based representations that contain the essential features of the objects and events (i.e. “why things are”), concrete mindsets consist of detail-oriented, literal descriptions (i.e. “how things come to be”). Using construal level theory, several researchers has shown that abstract thinking as a cognitive frame is malleable, and that it can be primed (Carrera, Muñoz, Fernández, & Caballero, 2018; Freitas, Gollwitzer, & Trope, 2004; Herter, Borges, Pinto, Ferreira, & Mattila, 2022; Miron-Spektor & Paletz, 2017).

Mindsets are key in several motivation theories. The aim of motivation research is to explain underlying mechanisms of behaviours in order to recommend how best to achieve goals. The rubicon model of action phases splits the process of performing an action into four distinct phases, deciding which action to take, planning to take the action, executing the action and then evaluating the action that was taken. The mindset theory of action phases focuses on two mindsets, a deliberative mindset, and an implemental mindset. The deliberative mindset, associated with the pre-decisional action phase and the post-actional action phase, is characterised by why type thinking (linked to abstract thinking). The implemental mindset, associated with the pre-actional and actional action phases, is characterised by how type thinking (linked to concrete thinking). The deliberative mindset has been associated with open-mindedness (Fujita, Gollwitzer, & Oettingen, 2007; L. Keller, Gollwitzer, & Sheeran, 2020; Winterich & Nenkov, 2015), which could help individuals pre-conceived negative ideas about entrepreneurship. The implemental mindset has been associated with lower risk aversion, an individual in this state focuses on getting the task done, and therefore tend to ignore information not supportive of obtaining the goal, in other words individuals in an implemental mindset tend to be more optimistic about the feasibility of the task (L. Keller & Gollwitzer, 2017).

Bazzy, Smit & Harrison (2019) showed that abstract thinking tendency is related to entrepreneurial intention, but did not study the effect of abstract thinking priming on entrepreneurial intentions.

This research dissertation uses both CLT and MAP to test both abstract thinking tendency and attitude in a practical setting.

1.3. Study Contributions

This research therefore continues where Bazzy et al. (2019) left off, by studying the impact of implemental mindset (concrete) and deliberative mindset (abstract) priming on entrepreneurial intentions. It contributes not only to entrepreneurial intention research via the Theory of Planned Behaviour (TPB), but also maximises the investment in entrepreneurship by improving the take-up of entrepreneurial training and support by recently unemployed individuals.

1.4. Research Aims and Objectives

(Anderson, Wennberg, & McMullen, 2019; de Souza Leão & Eyal, 2019)(Freitas et al., 2004; Herter et al., 2022)(Arshad, 2019)(Botha & Bignotti, 2017; Thompson, 2009)(Vallacher & Wegner, 1989)The high global unemployment rate, low level of unemployment entering self-employment, and the high number of “missing” entrepreneurs” inform the ultimate purpose of this research study: to find a way to enable unemployed individuals via entrepreneurship to get back onto the road to employment, create more jobs, and thereby reduce poverty. Specifically, the research presented will focus on how to improve take-up of entrepreneurial education amongst the recently unemployed.

From a theoretical perspective, we aim to address the following research questions: Does online mindset priming influence retraining choice in recently unemployed individuals? And Does online mindset priming influence entrepreneurial intentions in recently unemployed individuals?

From these research aims, we constructed the following research objectives:

- To determine whether mindset priming influences retraining choice after recent unemployment.
- To assess the interaction between attitude toward entrepreneurship, entrepreneurial intention, mindset priming and retraining choice after recent unemployment.

- To determine whether deliberative and implemental mindset priming influences construal level disposition of recently unemployed workers.
- To determine whether construal level disposition is related to entrepreneurial intention of recently unemployed workers.

Given the limited timeframe of a masters thesis, the research will mostly be focused on perceptions, intentions and career choice. Future follow up studies could include longitudinal entrepreneurial venture creation and entrepreneurial venture success measures such as firm survival and firm profitability.

1.5. Organisation of the dissertation

The rest of this empirical study dissertation will follow the standard process. In chapter two a thorough overview of the literature covering research into entrepreneurship as a way out of unemployment, the psychological impact of unemployed and specifically risk aversion research, human capital theory as a framework for investment into human capital, entrepreneurial intentions research including the theory of planned behaviour and the entrepreneurial event model, and mindset theory including mindset theory of action phases, actional identification theory and construal level theory. After this we construct our research hypothesis and conceptual framework.

In chapter three the research methodology is described in detail, including an in-depth discussion of the internal discriminant validity and reliability measures utilised, attitude toward entrepreneurship, entrepreneurial intentions, and construal level disposition. Chapter three will also cover sampling concerns, data analysis methods, research limitations and research ethics.

Chapter four provides the results of the mindset priming experiment and other hypothesis test. After which chapter five discusses the results in detail, grouped into a mindset results discussion, a retraining choice results discussion and an entrepreneurial intentions results discussion. In the concluding chapter, the purpose and outcome of the study is discussed as well as directions for future research.

2. LITERATURE REVIEW

2.1. Overview

In this chapter we review current literature and show that although economists and policy makers highlights the importance of the promotion of entrepreneurship and self-employment in eradicating poverty (United Nations, 2015), that large parts of communities are not ready for entrepreneurship given the psychological impact of poverty and unemployment (Caner & Okten, 2010; Dvouletý et al., 2018; Hetschko & Preuss, 2020; Li, 2017; Spears, 2011). Specifically we show that scarcity worsens a person's ability to deal with ambiguity and increases risk aversion (Hetschko & Preuss, 2020; Li, 2017), a key part of the entrepreneurial experience. Consequently, we conclude that investment in education and interventions to increase entrepreneurial intentions and success amongst the poor or unemployed is unlikely to succeed without addressing risk aversion first.

We also cover recent literature in human capital theory as a way to invest in education to promote entrepreneurship. We then go on to discuss the concept of entrepreneurial intention before discussing mindsets and different motivational theories related to risk aversion. We end this chapter by summarising the conceptual research framework of the current study.

2.2. Entrepreneurship: A way out of Unemployment

Economists, policy makers and scholars agree that entrepreneurship is important for economic development, reducing unemployment and eradicating poverty (Lukes, Dvouletý, & Lukeš, 2016; Si, Ahlstrom, Wei, & Cullen, 2020; Sutter, Bruton, & Chen, 2019; United Nations, 2015, 2023). However, there is still a debate whether promoting entrepreneurship to the unemployed is the best way to go about delivering economic growth and reduced unemployment (Behrenz, Delander, & Månsson, 2016; Dreisler, Blenker, & Nielsen, 2003; Galindo da Fonseca, 2022; Laffineur, Dubard Barbosa, Fayolle, & Nziali, 2017; Lukes et al., 2016; Shane, 2009).

In a scathing review of public policy, Shane (2009) explains “why encouraging more people to become entrepreneurs is bad public policy” by referencing the lack of new job creation amongst start ups. In his prize-winning lecture he berates politicians for believing in a

dangerous myth that start-ups hold the key to creating jobs. More than a decade later, Galindo da Fonseca (2022) via a lagged regression model using the Canadian Employer-Employee Dynamics Database (CCEED) proves that unemployed people start less productive businesses that fail more often. The conclusion being that promoting entrepreneurship to the unemployed is not an effective strategy to stimulating economic growth (Dreisler et al., 2003; Galindo da Fonseca, 2022; Laffineur et al., 2017; Shane, 2009).

We see a similar negative view of necessity entrepreneur firm survival from German Socio-Economic Panel Study (GSOEP) data (Block & Sandner, 2009). Necessity entrepreneurs defined here as those “pushed” into entrepreneurial activity (e.g. from unemployment) as oppose to opportunity entrepreneurs which are “pulled” into entrepreneurship to take advantage of a business opportunity (Dencker, Gruber, & Haas, 2021; Zwan, Thurik, Verheul, & Hessels, 2016). Block and Sandner however goes further by analysing necessity firm survival from GSOEP data when controlling for entrepreneurship education and find that there is no significant difference. In other words, necessity entrepreneurs are as effective as opportunity entrepreneurs in starting sustainable businesses if they have similar educational levels. Therefore programs promoting entrepreneurship that includes entrepreneurial education could be efficient in stimulating economic growth and reduced unemployment.

Beyond ensuring efficient high economic growth, entrepreneurship promotion programs are actually geared towards improving the financial means of participants. From this angle there is clear evidence from programs in the United States, Germany, Sweden and New Zealand that entrepreneurship encouragement to the unemployed is successful (Behrenz et al., 2016; Caliendo & Künn, 2011; Lukes et al., 2016). In a review of 18 empirical studies across ten years, Lukes et al. (2016) conclude that most programs have positive effects on the income of formal unemployed individuals. Participants in these entrepreneurship encouragement programs are more likely to leave unemployment for paid employment, self-employment or taking up further education. Moreover, this improved probability of economic participation is highest for those with only secondary schooling as highest level of education (Behrenz et al., 2016), suggesting that entrepreneurship encouragement programs are also effective at promoting inclusion.

In addition to reducing pressure on social welfare systems, necessity and lifestyle entrepreneurs also enjoys higher job satisfaction and well-being (Nikolova, 2019;

Rotemberg-Shir, 2015; Shir et al., 2018). Lifestyle entrepreneurship defined here as ventures providing a stable income stream to the entrepreneur given small reinvestments but with limited scope or desire for scaling operations (Kuratko, 2016; Morris et al., 2018, 2015). Nikolova (2019) goes further by highlighting that both necessity and opportunity entrepreneurs see improvements in their mental health. What's more, through paying local taxes and reinvesting in local communities, smaller lifestyle and necessity ventures also stabilises local economies (Morris et al., 2015).

Scholarly research into utilising entrepreneurship to alleviate poverty have mainly three underlying perspectives: remediation, reform or revolution (Sutter et al., 2019). The remediation perspective assumes poverty is due to insufficient resources, the reform perspective assumes poverty is a result of exclusion, and the revolution perspective proposes poverty is a result of broken systems.

The current research study focusses on the reform perspective, i.e. that poverty alleviation is due to a lack of resources, be those human capital (knowledge, skills and attitudes) or financial resources. Furthermore, that we can alleviate unemployment and poverty by unlocking the entrepreneurial potential of the poor. Specifically, although we acknowledge that high growth firms might be more efficient at creating employment, we highlight that necessity entrepreneurship has immediate benefits to financial and mental wellbeing to large parts of the community.

Moreover, even though high growth entrepreneurial ventures undeniably significantly contribute to social and economic development, given the many pivots in entrepreneurial ventures, we cannot predict which venture will succeed or fail (Kuratko, 2016; Morris et al., 2015), and any entrepreneurial exposure, even failure, increases an entrepreneur's preparedness for possible future high growth entrepreneurial opportunities (Cope, 2011). In other words, most opportunity vs. necessity entrepreneurship research ignores temporal aspects, i.e. that necessity entrepreneurs after successful ventures might transition to voluntary entrepreneurial ventures to satisfy higher order needs (Dencker et al., 2021).

Lastly we are also encouraged by studies showing that after controlling for entrepreneurship education, that necessity entrepreneurship can be as efficient in generating economic growth as high growth opportunity entrepreneurship (Block & Sandner, 2009).

2.3. Unemployment and Risk Aversion

The psychological effect of unemployment has been studied for many years (Dvouletý et al., 2018; Dvouletý & Orel, 2019; Hetschko & Preuss, 2020; Knabe & Rätzel, 2011; Mühlböck, Warmuth, Holienka, & Kittel, 2018; Ralston, Everington, Feng, & Dibben, 2022). This effect includes lower life satisfaction and well-being for a long time after re-employment (more than 20 years) due to feelings of insecurity and possible future unemployment. Understandably, people who were previously unemployed are reluctant to switch jobs and therefore have worse career development.

Studies have found that the income and employment status of parents also affect the career choice of children. With poorer students preferring education or health careers over riskier options such as economics or physics (Caner & Okten, 2010; Chivers, 2017).

The scarring effects of unemployment goes further than just impacting career choices, ending up in a general fear and avoiding risk, including playing sports, investing in stocks or going on adventures. Using a general risk attitude scale, Hetschko and Preuss (2020) estimates that losing one's job increases risk aversion by 22%. Risk aversion defined here as preferring items with a high chance to succeed (Werner, 2008).

Risk aversion and dealing with ambiguity is also more generally linked to poverty and scarcity (Li, 2017; Ronzani, Savadori, Folloni, & Mittone, 2018; Spears, 2011). Ambiguity here is defined wider than risk. Whereas risk averse individuals prefer high probability items over low probability options, ambiguity adverse individuals prefer known probability items over unknown probability items. In other words, an ambiguity averse person would choose a high risk option rather than ambiguous one (J. Zhang, 2022).

Ambiguity aversion has been shown to contribute to the poverty trap. With poorer individuals more likely to be ambiguity averse, and less likely to invest in newer technologies and more likely to over insure (Chivers, 2017; Li, 2017; Visser, Jumare, & Brick, 2020). In short, by going after certainty, poorer people in general choose to survive rather than thrive. Unemployment is closely related to poverty. Poorer individuals mostly rely on finding work to survive.

Although no single factor explains entrepreneurial success, two key factors are ability to tolerate ambiguity and low risk aversion (Chatterjee & Das, 2015; Hvide & Panos, 2014; Koudstaal et al., 2016). Risk taking is nearly unavoidable in entrepreneurship, with daily decisions and trade-offs between returns and risk. Whereas any lower risk aversion is linked to higher likelihood to start a business, we see that those businesses that survive the longest are run by individuals with medium risk attitude (Caliendo, Fossen, & Kritikos, 2010; Cunningham & Anderson, 2018).

In a recent Global Entrepreneurship Monitor survey (GEM, 2023) of 49 countries, more than a third of the public in 46 countries who saw good entrepreneurial opportunities in their local area, indicated that they would not start a business for fear it might fail. In 13 countries including South Africa, India, Canada and the United Kingdom, the fear of failure was more than 50%. This is despite the high status of entrepreneurship in these countries. These levels of fear have remained stable for many years.

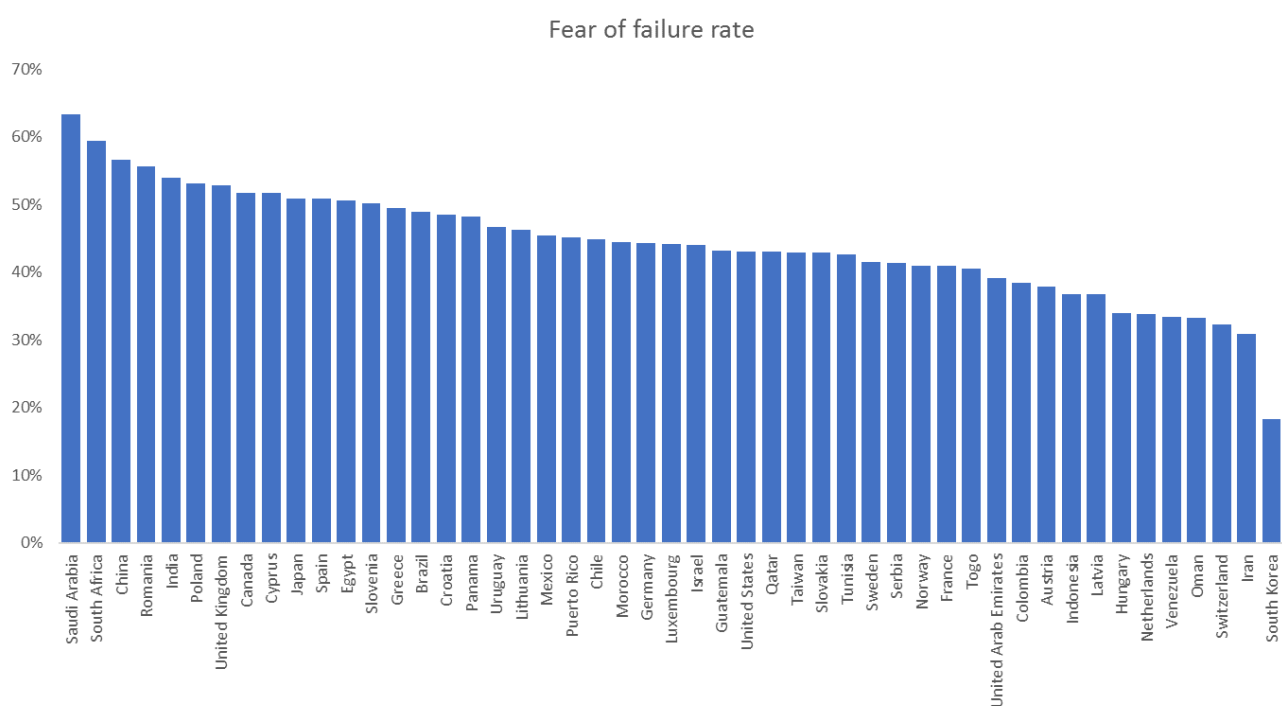


Figure 1: Fear of failure rate of those who show good entrepreneurial opportunities (GEM, 2023)

The 2023 OCED study reports that less than 3% of job seeking unemployed individuals in the European Union said that they would like to start a business (OECD/The European

Commission, 2023). Furthermore, those unemployed individuals wanting to start a business have a lower fear of failure (Wagner & Sternberg, 2004).

We therefore conclude that large parts of communities are not ready for entrepreneurship given the psychological impact of poverty and unemployment. Investment in education and interventions to increase entrepreneurial intentions and firm survival amongst the poor or unemployed is unlikely to succeed without addressing risk aversion first.

2.3.1. Prospect theory and disappointment aversion

Individuals are not equally risk averse across different circumstances, for example when facing losses vs. when facing gains. Prospect theory is an attempt by Daniel Kahneman and Amos Tversky to explain why individuals don't always behave rationally. This literature review does not aim to provide a complete review of recent prospect theory research but only introduces the framework as a tool to consider when encountering biases or counter intuitive risk aversion behaviour.

In short, prospect theory, via numerous studies, have shown that people are more sensitive to losses than gains (Gradinaru, 2014). For example, imagine the following loss scenario: option 1, a 100% probability to lose R50, or option2, a 50% probability to lose R120. Studies have shown that individuals will choose option 2, a 50% probability to lose R120. Note that in option 1 the expected loss value was R50, lower than in option 2, R60. In this way people are trying to avoid certain losses, and so take the gamble, i.e. are risk seeking.

Now imagine the following gains scenario: option 1, a 100% probability to win R50, or option2, a 50% probability to win R120. Studies have shown that individuals will choose option 1, a 100% probability to R50. Note than in option 2, the expected win was R60, higher than option 1, R50. In this way people are trying to bank certain gains, and so avoid the gamble, i.e. are risk averse.

For a comprehensive review of the last prospect theory research since the late 1970's to 2013, please see Nicholas Barberis' "Thirty Years of Prospect Theory in Economics: A Review and Assessment" (2013).

Another framework related to risk aversion is the disappointment aversion model. Again, we are only introducing the framework as a tool to consider when encountering biases or counter intuitive risk aversion behaviour.

The basic reasoning behind disappointment aversion is that if you have high expectations of something, in order to not be disappointed, you are less likely to take a risky decision (Gul, 1991; Jia, Dyer, & Butler, 2001).

2.4. Human Capital Theory

The basic premise of Human Capital Theory (HCT) is that investment in education, training/experience, and acquisition will yield returns in the form of human capital outcomes, namely knowledge, skills, and abilities (Marvel et al., 2016; Unger et al., 2011).

HCT has developed to influence most microeconomic fields, and specifically is seen as a key model to explain the impact of entrepreneurial education on entrepreneurial success (Anosike, 2019; Fossen & Büttner, 2013; Martin et al., 2013; Marvel et al., 2016; Rahm, 2019; Unger et al., 2011). Success here is not just defined as firm size, survival and profitability, but also entrepreneurial well-being. Several studies have shown that there is a positive correlation between human capital investment and entrepreneurial success (Martin et al., 2013), but results remain inconsistent given moderators (Anosike, 2019). Specifically the type of human capital investments (education), context of the firm, country and culture, and the choice of success measure mediates the relationship between human capital investment and entrepreneurial success (Shirokova et al., 2018; Unger et al., 2011).

In their meta analysis of 70 independent samples (N=24,733) over three decades of research, Unger et al. (2011) shows the correlation between human capital investments and entrepreneurial success is actioned through human capital outcomes. Similarly Martin et al. (2013) and Rahm (2019) illustrates that investment in entrepreneurship related human capital leads to entrepreneurship related assets, which leads to entrepreneurship outcomes. Human capital outcomes in entrepreneurship research has been expanded to include constructs such as decision making (Marvel et al., 2016). In their review of 79 studies Martin

et al. (2013) categorises entrepreneurship-related human capital assets into three categories: skills, perceptions, and intentions.

Therefore, returns on human capital investments can be maximised by measuring impacts on skills, perceptions and intention.

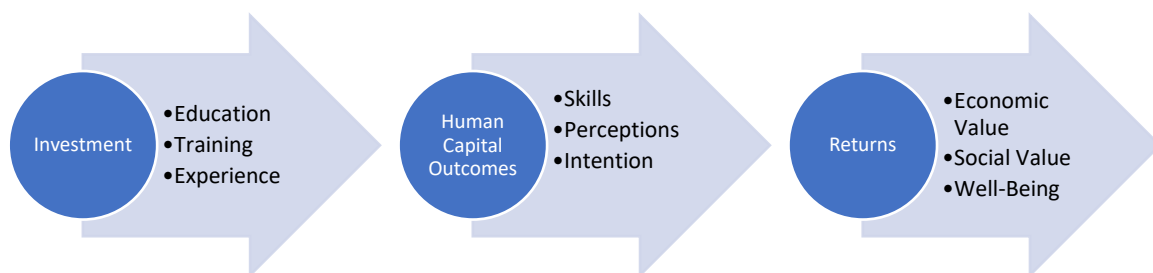


Figure 2: Human Capital Investment Model synthesized from Unger et al. (2011), Martin et al. (2013), Marvel et al. (2016), Wikland et al. (2019) and Rahm (2019).

2.4.1. Human Capital Investment (HCI)

As already stated, the type of education and training investments in human capital is an important determinate of the effect size of the investment. Unger et al.(2011) in an evaluation of several independent studies showed that entrepreneurial task related education is more effective than general business training in generating return on investment. Rahm (2019) further expands on the type of entrepreneurship education and training by incorporating epistemic fit. Specifically Rahm (2019) theorises that only transactional training is congruent with the “philosophical vantage point to entrepreneurship”. Transactional training creates situations whereby students interact in practise with the material, as oppose the teacher only transmitting information (Miller, 2007). The rest of the current research study will only deal with task related (congruent) and epistemic fitting (transactional) education and training.

There are several entrepreneurship educational content frameworks espousing different entrepreneurial competencies (Anosike, 2019; Resei & Friedl, 2018). Broadly, the aim of entrepreneurship education is to 1) increase opportunity creation / recognition skills, 2) increase strategic thinking and marketing skills to exploit opportunities, and 3) provide a base level understanding of the efficient and effective management of an eventual successful venture either as a primer for further learning or guide in successful deployment of managers (Anosike, 2019; Martin et al., 2013; Marvel et al., 2016).

Opportunity Emergence Skills

Several researchers have shown that opportunity emergence skills are necessary for entrepreneurial success (Anosike, 2019; Karimi, Biemans, Lans, Chizari, & Mulder, 2016; Rust, 2013; Short, Ketchen, Shook, & Ireland, 2010; Ucbasaran, Westhead, & Wright, 2008). Opportunity emergence in entrepreneurship is the ability to identify or create an idea that can be transformed into a business that adds value to clients or society (Karimi et al., 2016).

There are two major viewpoints in entrepreneurship opportunity research: opportunity creation, and opportunity identification (Short et al., 2010). Opportunity identification training can be said to subscribe to a realist view of education, and opportunity creation training can be said to subscribe to an anti-realist (pragmatism or experimentalism) view of education (Rahm, 2019). Rahm (2019) further shows on in a longitude study of Stockholm School of Entrepreneurship students that investment in anti-realist entrepreneurship education and training yields higher returns (entrepreneurial success). However, Short et al. (2010), Karimi et al. (2016), Smith, Moghaddam, & Lanivich (2019) and Jones & Barnir (2019) illustrates that both opportunity identification and creation can occur in practice, and that context mediates the opportunity emergence.

Opportunity emergence is a creative or innovative activity, and abstract reasoning has been shown to improve new product ideation and other innovation tasks (Frederiks, Englis, Ehrenhard, & Groen, 2019; Grégoire, Barr, & Shepherd, 2010).

Entrepreneurial Marketing Skills

Marketing creates relationships with clients by understanding clients' unmet needs and wants and position products and services in the marketplace (Eriksson & Hauer, 2004; Meera & Vinodan, 2022; Royle & Laing, 2014). Modern marketing skills in search engine optimisation, graphic design, and video editing (Royle & Laing, 2014).

Trying different sales and marketing tactics has been shown to be critical for the survival of small and medium businesses (Alqahtani, Uslay, & Yenyurt, 2022; Ayiku & Grant, 2021; Meera & Vinodan, 2022).

Business Management Skills

Business management skills covers a wide array of competencies, such as leadership skills and financial management skills becomes key to creating a sustainable, scalable business (Roodt, 2005; Škare, Blanco-Gonzalez-Tejero, Crecente, & del Val, 2022; W. K. Smith, Besharov, Wessels, & Chertok, 2012).

2.4.2. Human Capital Investment Outcomes (HCIO)

Since human capital return on investment is actioned through human capital investment outcomes, this sections briefly gives an overview of the skills, perceptions and intentions this research proposal intends to study.

Skills

Baggen et al. (2018) developed and tested a competence assessment test for opportunity identification and creation. The test measures creative competence in three dimensions, namely fluency, elaboration, and flexibility (Baggen, 2017; Baggen et al., 2018). Fluency is measured by the quantity of items meeting specifications; elaboration is measured as proportion of concrete (possible to visualise or apply) ideas; and flexibility is measured by the number of ideas in different categories.

There are several tests to measure abstract thinking, for example the location of attention (LOA) subscale of the Analysis-Holism-Scale, and the behaviour identification form (BIF) (Fleischmann & Burgmer, 2019; Williams et al., 2014).

Perceptions

Entrepreneurship training has been shown to influence perceptions at individual level, including self-efficacy, and social level (norms) by several researchers (Darmanto & Yuliari, 2019; Fuller, Liu, Bajaba, Marler, & Pratt, 2018; Hsu et al., 2019; Martin et al., 2013).

Intention

Intention is a representation of the direction of future action which affects individuals' choices and behaviour (Fayolle et al., 2015).

The theory of planned behaviour was originally conceptualised by Ajzen (1991) as an expansion to the theory of reasoned action. It provides a model to link perception; individual attitudes, social norms, and perceived behavioural control (self efficacy and controllability) with entrepreneurial intention, and entrepreneurial behaviour or action.

Entrepreneurial intention literature will be discussed further in section 2.5.

2.4.3. Return on Investment (ROI)

As already stated, despite the widespread interest in entrepreneurship, decades of entrepreneurship education research has borne modest returns, with training interventions yielding mixed results (Anosike, 2019; Cho & Honorati, 2014; Martin et al., 2013; Unger et al., 2011). This section defines entrepreneurial success beyond firm size, survival and profitability.

Economic

The primary aim of entrepreneurship training human capital investment is new venture outcomes. Entrepreneurial venture creation can be broadly be seen as a three step process: opportunity recognition, venture emergence (nascent entrepreneurs), and venture outcomes. Few studies have examined the relationship of human capital investment of the early stages of venture creation namely opportunity recognition and venture emergence (Marvel et al.,

2016). Venture outcomes can be measured by two constructs, firm survival and firm revenue generation. Entrepreneurship training has also been linked to improved income generation for paid employees (Fossen & Büttner, 2013; Starnawska, Procházka, & Dvouletý, 2019).

Social

Beyond economic outcomes, human capital investments also have social impact, specifically it can be shown to improve income distribution and support economic empowerment initiatives (such as broad based back economic empowerment in South Africa) by giving more functionally skilled people the confidence to start new ventures by investing entrepreneurial training and orientation interventions including nudges to overcome the fear of failure / ambiguity loss. (Anand & Lea, 2011; Anosike, 2019; Bruton, Ahlstrom, & Si, 2015; Cumming, Johan, & Uzuegbunam, 2019; P. Jones et al., 2018; Legas, 2016; Neal, 2017; Slade Shantz, Kistruck, & Zietsma, 2018).

Well-Being

Individual well-being can be defined as life satisfaction including job satisfaction and positive affect associated with entrepreneurial activities or switching to self-employment (Abreu, Oner, Brouwer, & van Leeuwen, 2019; Wiklund, Nikolaev, Shir, Foo, & Bradley, 2019). We also know that well-being is negatively correlated with unemployment, with unemployed individuals being in poorer physical and mental health, and showing higher drug use and criminality (Ralston et al., 2022).

2.5. Entrepreneurial Intentions

Intention is a representation of the direction of future action which affects individuals' choices and behaviour (Fayolle et al., 2015). The current research study will not delve into the distant origins of intention theory, but suffice to say that philosophers as far back as Socrates have been considering the concept (Krueger, 2017) and has sound philosophical and psychological grounding.

What is important for the current research study, is that intentions have been shown to be a good predictor of behaviour, and more specifically, planned behaviour (Ajzen, 1991; Arshad,

2019; Krueger et al., 2000a; Lavelle, 2021). Entrepreneurship, or the act of setting up and running new businesses by seeing opportunities in the market and gathering resources, is planned intentional behaviour (Arshad, 2019; Vodă & Florea, 2019). Entrepreneurial intention can be defined as a representation of the direction of future entrepreneurial action which affects individuals' choices and behaviour (Fayolle et al., 2015).

2.5.1. Theory of Planned Behaviour

The theory of planned behaviour was originally conceptualised by Ajzen (1991) as an expansion to the theory of reasoned action. It provides a model to link perception; individual attitudes, social norms, and perceived behavioural control (self efficacy and controllability) with entrepreneurial intention, and entrepreneurial behaviour or action. There has been many updates to the model, but the basic premise remains robust (Fayolle et al., 2015; Krueger, 2017; Tornikoski & Maalaoui, 2019; Zaremohzzabieh et al., 2019).

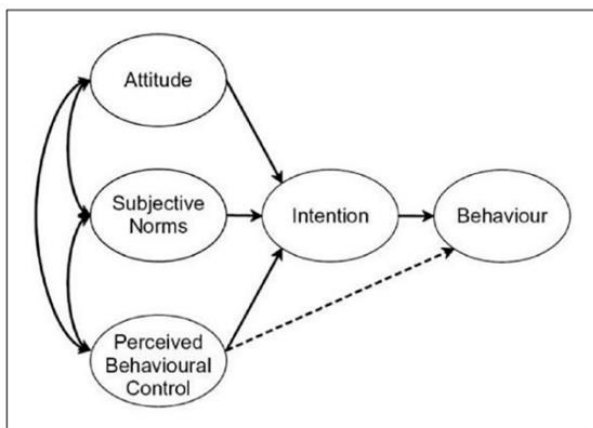


Figure 3: Theory of Planned Behaviour (Ajzen, 1991)

Attitude

Expectancy Value Theory (EVT) developed in the 1960s states that motivation is determined by two factors: expectancy and value (Barron & Hulleman, 2015; Studer & Knecht, 2016). Expectancy being how likely a behaviour will result in outcome, and value being whether the outcome is desired. We assign many values to different attributes of an outcome or object, and attitude can be seen as the combined subjective values about an object (Ajzen, 2000).

Our attitudes, made up of values therefore impacts our motivation for future action, or in other words intentions.

Attitude toward entrepreneurship can be summarised as a way people perceive the world, specifically, “the degree to which the individual holds a positive or negative personal valuation of being an entrepreneur” (Ajzen, 1991; Arshad, 2019; Bazzy et al., 2019; Liñán & Chen, 2009; Trope & Liberman, 2010).

It is important that attitude toward entrepreneurship be measured via an aggregate attitude scale, rather than beliefs. Beliefs being the antecedents of attitudes (Ajzen, 2000). It has been shown that attitudes rather than beliefs strongly drive intention (Arshad, 2019; Liñán & Chen, 2009).

Subjective Norms

Intentions, attitudes, and behaviours are not formed in a vacuum. Peer pressure, and societal expectations influences what we value. This could be real or perceived expectations created from either directly seeking approval from family or friends, or wider interpretation of subliminal messages received from media consumption. Social norms can be thought of as the set of unwritten rules of conduct from a peer group or society.

Subjective norms or perceived social norms that influences via the expectancy value theory of motivation, as these norms impacts what we value which impacts our motivation for future action. Social norms about entrepreneurship have been shown to strongly influence entrepreneurial intention (Fayolle et al., 2015).

Perceived Behavioural Control

Perceived behavioural control is made up of two factors, self efficacy and controllability. Perceived self efficacy being how good or competent an individual believes they are at a task, and controllability being whether the outcome of a task is completely controllable.

Perceived behavioural control, and more specifically self efficacy has been shown to strongly predict entrepreneurial intentions in many research studies (Ajzen, 1991; Barbosa, Gerhardt,

& Kickul, 2007; Botha & Taljaard, 2021; Hsu et al., 2019; Krueger, 2000; Liñán & Chen, 2009; Mcgee, Peterson, Mueller, & Sequeira, 2009; Newman, Obschonka, Schwarz, Cohen, & Nielsen, 2019; Zaremohzzabieh et al., 2019). More recent studies unpack the type of efficacy into cognitive and social competency (Botha & Taljaard, 2021). This research study is focused on the relationship between entrepreneurial intention and the interaction between attitude toward entrepreneurship and implemental and deliberative mindsets, and will not examine perceived behavioural control further than noting that entrepreneurial education has been shown to improve entrepreneurial self efficacy (Lavelle, 2021).

Attitude toward entrepreneurship as mediator for social norms and self-efficacy

Several recent studies have shown that attitude toward entrepreneurship act as mediator between self-efficacy, social norms and entrepreneurial intentions (Arshad, 2019; Liñán & Chen, 2009). Using structural equation modelling Arshad (2019) shows that attitude towards entrepreneurship fits better as a mediator variable, in other words attitude explains the process through which social norms and self-efficacy affects entrepreneurial intentions. Specifically, individuals showing that entrepreneurship is valuable, are likely to seek opportunities to learn how to do well in entrepreneurship and therefore improve self-efficacy, which in turn will result in higher entrepreneurial intentions.

2.5.2. Entrepreneurial Event Model

The entrepreneurial event model as envisage by Shapero and Krueger brings inertia into the equation of human behaviour (Krueger et al., 2000a). In other words, people likely do not change until an event interrupts the inertia, for example inheriting money might spark someone to become an entrepreneur. This influence of events goes beyond a precipitating event that leads to entrepreneurial action, by linking all live events as influencing the perceived desirability and the perceived feasibility of entrepreneurship. For example, meeting and getting to know a successful entrepreneur is likely to increase the perceived desirability and feasibility of an individual.

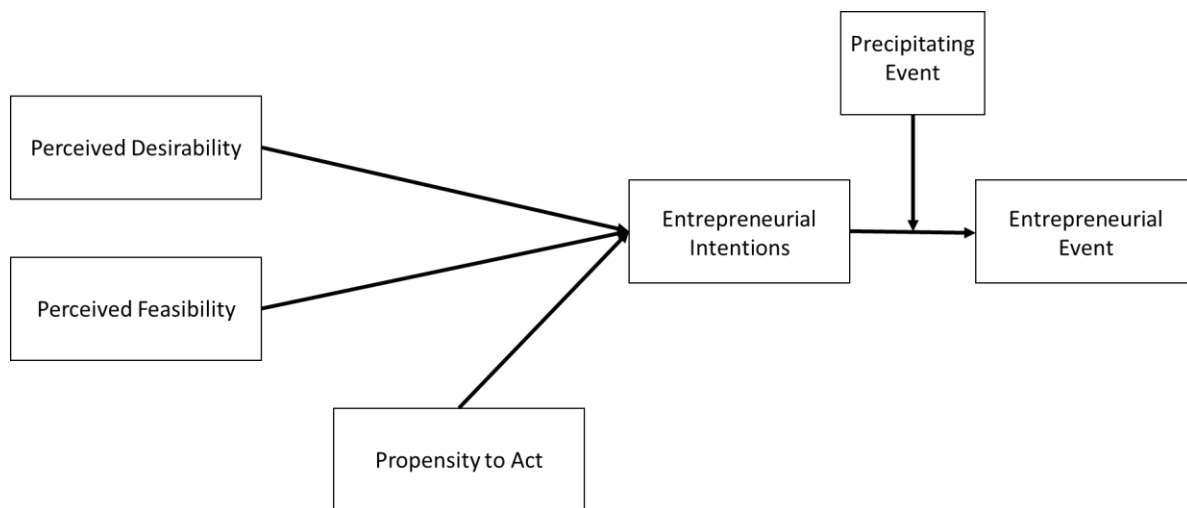


Figure 4: Entrepreneurial Event Model (Krueger et al., 2000a)

The theory of planned behaviour and the entrepreneurial event model is very similar, with only subjective norms being excluded and precipitating event added to the latter.

Desirability, feasibility and propensity to act is closely related to personal attitudes, self efficacy and perceived behavioural control (Krueger et al., 2000a; Schlaegel & Koenig, 2014; Vodă & Florea, 2019).

Both models perform well in practise, with preference to one or the other shifting from study to study (Davids, 2017; Krueger, 2017; Soomro, Lakhan, Mangi, & Shah, 2020; Zaremohzzabieh et al., 2019). Given that the current study focusses on personal attitudes and intentions only, we do not state a preference, however we note that Davids (2017) found that in a South African context that the Theory of Planned Behaviour explained more variance in entrepreneurial intentions.

2.5.3. From Entrepreneurial Intention to Entrepreneurial Action

Although the Theory of Planned Behaviour gives a robust lens to study entrepreneurial intentions, there are still large variances in the link between entrepreneurial intention and entrepreneurial action (Donaldson et al., 2021). Practically, we see many countries where entrepreneurial behaviour is lower than entrepreneurial intentions (Dlamini & Botha, 2023; GEM, 2023; OECD/The European Commission, 2023).

Donaldson et al. (2021) in their review of recent literature calls upon future research to include a temporal lens. New venture creating is an iterative process, where potential entrepreneurs obtain more knowledge and resources before acting. Hence whenever measuring the link between intention and action the researcher needs to ask at which point in the nonlinear journey the nascent entrepreneur finds him or herself.

In a similar vein, Dlamini and Botha (Dlamini & Botha, 2023) proposed a three stage process of entrepreneurial action, Entrepreneurial Opportunity Discovery, Entrepreneurial Opportunity Evaluation, and Entrepreneurial Opportunity Exploitation. Surveying 597 entrepreneurs they found that although all three stages are related to entrepreneurial intentions, that there was a very strong relationship with Entrepreneurial Opportunity Discovery, a slightly lower connection with Entrepreneurial Opportunity Evaluation, and even lower connect with Entrepreneurial Opportunity Exploitation.

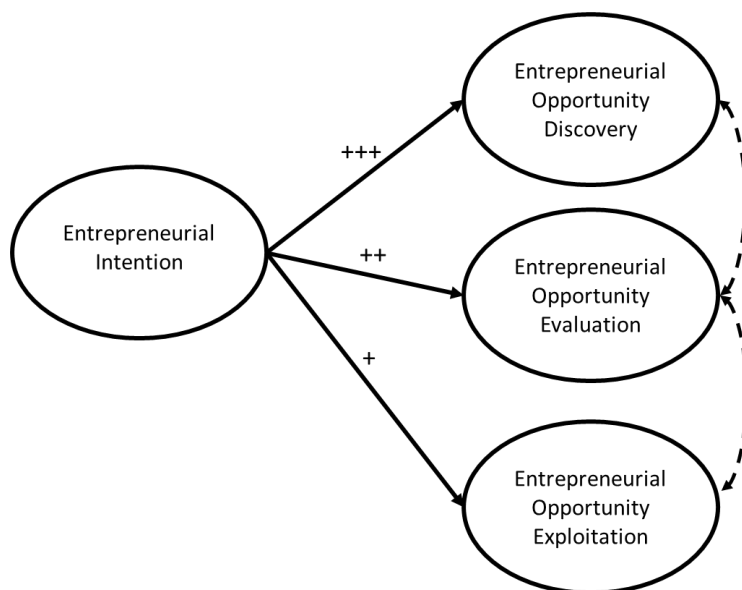


Figure 5: Entrepreneurial Event Model (Dlamini & Botha, 2023)

Other scholars have suggested different lenses to study the link between intention and behaviour, with the abstractness of entrepreneurial action receiving more attention in recent entrepreneurial literature.

The theory of abstractness of entrepreneurial action is based in construal level theory (Chen, Mitchell, Brigham, Howell, & Steinbauer, 2018). Construal level can be thought of as psychological distance at the point of decision making, with construal level increasing as a decision is being construed is further away, whether that is temporally or geographically (Benschop et al., 2021; Lange, Kruglanski, & Higgins, 2012; Trope & Liberman, 2010).

Although construal level theory only has two poles, abstract (unobservable) and concrete (observable), it can be divided into four phases of abstractness: thinking (objective setting), thinking about doing (idea generating and planning), doing to inform thinking (experimenting and assessing), and doing (Chen et al., 2018).

Hypotheticality is a type of psychological distance where for example entrepreneurial ventures can be thought of to be more likely to happen or less likely to happen. Chen et al. shows that how hypotheticality nascent entrepreneurs construe a venture depends on which stage of action the entrepreneur is in, which in turn strengthens or weakens the relationship between intentions and action. Construal level theory is being applied wider to the theory of planned behaviour, with the desirability-intention link higher in the thinking phase of action (Donaldson et al., 2021).

In conclusion, despite some temporal / process of action inconsistencies, entrepreneurial intention is a great predictor of entrepreneurial action. In this research study we will focus on influencing entrepreneurial intentions as a way to increase future entrepreneurial action.

2.6. Mindsets

Mindsets are key in several motivation theories. The aim of motivation research is to explain underlying mechanisms of behaviours in order to recommend how best to achieve goals. Motivation defined here as the goal setting process before a behaviour which centres on desirability and feasibility of goals. This is distinct from volition or willpower, which is the process of deliberate striving for a goal, and the planning to be able to reach the goal. In short motivation can be thought of why people behave in a certain way and volition can be thought of as how people behave to reach a goal (L. Keller, Bieleke, & Gollwitzer, 2019).

Mindsets are cognitive frames that impact perceptions, emotions, information processing, and behaviours (Gollwitzer, 1990; Miron-Spektor & Paletz, 2017). Cognitive frames are malleable via experience, or in other words, situational factors can shape our mindset and moderate our actions (Miron-Spektor & Paletz, 2017).

Although mindsets or state of mind have been discussed by philosophers for millennia, it was only studied in psychology from the early 20th century starting with Henry Watt noticing in 1904 that task instructions influenced performance (Gollwitzer, 1990). The current definition of mindsets was largely promoted by Gollwitzer (1990) in the evolution of the rubicon model of action phases (H. Heckhausen & Gollwitzer, 1987) to the mindset theory of action phases.

This section on mindsets will start with introducing the mindset theory of action phases, and then discuss several other motivation theories (action identification theory, construal level theory and the persuasion knowledge model) and how they interact with the mindset theory of action phases.

2.6.1. Mindset Theory of Action Phases

The rubicon model of action phases brings together theories of motivation and volition. Theories of motivation is focussed on choosing a goal, and theories of volition is focussed on reaching this goal. As you move from choosing a goal to thinking about how to achieve it, you are said to have crossed the decisional rubicon, named after the famed Roman river which was the point of no return for Caesar's armies.

The rubicon model of action phases splits the process of performing an action into four distinct phases, deciding which action to take, planning to take the action, executing the action and then evaluating the action that was taken (H. Heckhausen & Gollwitzer, 1987).

As an individual moves through these phases, there are different cognitive process requirements. In the deliberation phase in trying to decide which goal to pursue, the focus is in evaluating desirability and feasibility aspects of different goals. Some decisions might take longer than others to deliberate, but in the end this phase is designed to end in either action or inaction. This phase has been linked to higher levels of anxiety (J. Heckhausen & Heckhausen, 2008). As an individual considers all of the desirability and feasibility aspects,

clarity is gained, and the individual with a higher or lower motivational tendency cross the rubicon and transform the motivational tendency or wish into goal intentions.

After the decision is made, but before the action is taken, the individual is in the pre-actional phase. During this phase the aim is to review feasibility issues, and plan by asking how and when questions and reviewing potential stumbling blocks. This separate volitional state brings willpower into the equation, without which there is no action. This gap between motivation and action was a problem in motivational research before Heckhausen and Gollwitzer. The combination of all of the how, when, where planning creates the implementation intentions, which includes “if this thing happens, then I will take this action” plans (Achtziger & Gollwitzer, 2018).

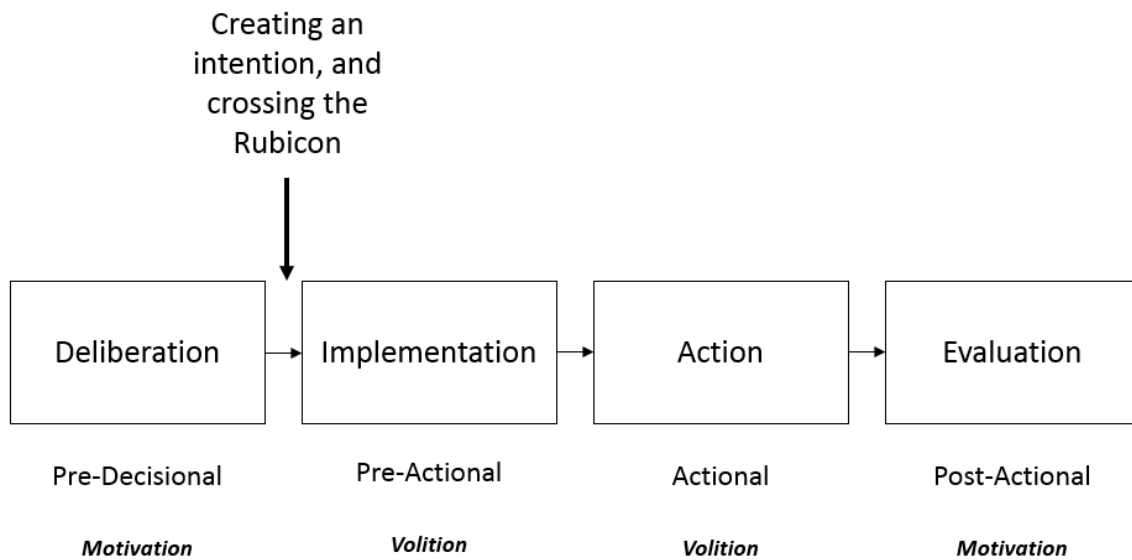


Figure 6: Rubicon Model of Action Phases (H. Heckhausen & Gollwitzer, 1987)

The strength of the goal intentions and the implementation intentions, and the interaction with circumstances which as conducive or inhibitory, then leads to taking action. The actional phase is iterative where actions might be interrupted, where volitional strength is needed to follow through on the action.

Lastly the fourth phase evaluation phase is entered once the goal has been achieved. In the evaluation phase the individual reviews to which extend the action resulted in successful goal attainment, and whether the attainment of the goal was as desirably as originally anticipated.

Given the result of the review, an individual might choose to go back and try to achieve the goal more successfully by following different actions, or might decide the goal was successfully attained, or even if the goal was not completely achieved that it is no longer desirable.

The mindset theory of action phases adds to the rubicon model by postulating that different mindsets are needed in the different action phases (Gollwitzer, 1990). Specifically, two mindsets are proposed, a deliberative mindset during the motivation action stages, and an implemental mindset during the volition action stages.

Mindset theory of action phases theory (MAP) starts with a distinction between mindsets and tasksets. A taskset defined here as specific set of cognitive procedures needed to fulfil a task, for example in needing to reading research papers, reading comprehension (vocabulary, working memory, inference etc.) Mindsets are wider cognitive frames that might be applicable to several different tasks, such as open-mindedness, and describe the configuration of cognitive procedures (Gollwitzer & Keller, 2016).

Mindsets has been shown to carry over to new independent tasks (Freitas et al., 2004; L. Keller & Gollwitzer, 2017; Taylor & Gollwitzer, 1995). For example, by asking individuals to consider which goals they want to pursue in life in general, the deliberative mindset is activated, and its effects can be seen in a subsequent unrelated task, such as taking a decision. The congruence of these mindsets has been tested in several studies, for example in a task to complete a fairy tale, those in a deliberative mindset (who were asked to think about a personal problem where they had to make a decision to change) created more deliberative story lines than those in an implemental mindset (asked to plan how to achieve a personal goal) (Gollwitzer, Heckhausen, & Steller, 1990).

The deliberative mindset, linked to the two motivational phases, focusses on considering alternatives both from a desirability outlook but also a feasibility outlook. Individuals in this mindset is therefore busy calculating probabilities and likely outcomes. Gollwitzer proposes that individuals in this mindset considers all alternatives, and by weighing pros and cons a more realistic cautious view of risk is evoked (L. Keller & Gollwitzer, 2017). This has the potential to counteract some cognitive biases such as the anchoring effect (Hügelschäfer & Achtziger, 2014).

In a recent study using the balloon analog risk task (BART), Keller & Gollwitzer (2017) showed that those in a deliberative mindset showed less risk taking behaviour. The BART is a well-known decision making task where participants are shown balloon and balloon pump. For each pump action the participant earns money, but loses the money if the balloon bursts. The participant can choose to exit at any point by clicking the “collect money” button to exit and keep the money earned. In Keller & Gollwitzer’s experiment those in a deliberative mindset pumped the balloon fewer times and let fewer balloons burst.

The deliberative mindset has also been linked to open-mindedness (Fujita et al., 2007; L. Keller et al., 2020; Winterich & Nenkov, 2015). Open-mindedness defined here as being aware of the fallibility of your own beliefs and attitudes (Riggs, 2010).

In three experiments using recognition memory tests Fujita et al. (2007) showed that individuals in a deliberative mindset had higher recognition memory due to open-mindedness to processing incidental information. The test involved randomly presenting words during an unrelated task and then asked in a surprise test at the end to confirm the words they recognised. Those primed with a deliberative mindset took significantly less time to recognise the words than those in an implemental mindset. This is remarkable considering that the words were presented for only 300 milliseconds.

Relying on the demonstrated open-mindedness of those in a deliberative mindset, Winterich & Nenkov (2015) showed across four experiments that individuals in a deliberative mindset were more open to being influenced by the savings behaviours of others. Savings behaviour more than doubled (\$133.82 vs \$62.44) for those in a deliberative mindset. Winterich & Nenkov conclude by proposing that savings behaviour can be improved by inducing a deliberative mindset and including peer savings behaviour information in adverts. Given the sample sizes of the saving experiments, the results are more robust than Fujita et. al.’s memory studies.

In contrast, the implemental mindset, linked to the two volitional phases, focuses on getting the task done, and therefore tend to ignore information not supportive of obtaining the goal. The implemental mindset has been shown to be less risk averse, or stated differently, those in the pre-actional phase tend to be more optimistic about the feasibility of the task, and more importantly that this motivation carries over to new independent tasks (Freitas et al., 2004; L.

Keller & Gollwitzer, 2017; Taylor & Gollwitzer, 1995). This close-mindedness of those in an implemental mindset has been experimentally confirmed on word tasks (noun-spans) and visual tasks (eye movement tracking) (Achtziger & Gollwitzer, 2018). The ignoring of information is important in the volitional stage to ensure that tasks are completed. In fact those in an implemental mindset have been shown to need less time to complete tasks (Brandstätter, Giesinger, Job, & Frank, 2015).

Lastly, mindset theory of action phases has also been applied in setting smart goals, with clear “if-then” planning, by forming implementation intentions, individuals initiate goal-directed behaviour and were more likely to achieve goals (L. Keller et al., 2019).

2.6.2. Action Identification Theory

Action Identification Theory provides a framework of how individuals think about what they do and is therefore core to social cognition and social psychology research (Vallacher & Wegner, 1989, 2012). It links actions and thoughts in a reciprocal relationship. Actions can be thought of in different ways, for example when thinking about opening a window you might be thinking of grabbing a handle and pushing the window open, or you might be thinking I am letting fresh air in to improve my health.

The different ways of thinking is represented in action identification theory in a continuum from concrete thinking to abstract thinking. Concrete thinking is defined as process driven how thoughts, e.g. grabbing a handle and pushing the window open. Abstract thinking in contrast is purpose driven why thoughts, e.g. getting fresh air to improve health.

The more abstractly an individual thinks about an action, the more it links to morals and ideals and the individual’s identity (Vallacher & Wegner, 1989). Abstract thinking helps individuals make sense of the world, however, is not always appropriate for every action, especially if it is an unknown action and you need to think of how to complete the action. The optimal representation of action is therefore dependent on circumstance (Vallacher & Wegner, 2012).

Abstract thinking can also be defined as global, holistic information processing, i.e. seeing the big picture, and has been linked to cognitive flexibility (Bazzy et al., 2019; P. K. Smith & Trope, 2006; Williams et al., 2014).

Bazzy, Smit & Harrison (2019) showed that abstract thinking tendency is related to entrepreneurial intention, but did not study the effect of abstract thinking priming or training on entrepreneurial intentions or success. Given that entrepreneurs must both be aware of detailed, rational aspects of their ventures, and maintain an overall view of vision and strategy, and need to “zoom in and out”, cognitive flexibility is required (Bazzy et al., 2019; Fayolle & Liñán, 2014). Moreover, successful entrepreneurship needs tenacity given the many ups and downs, and abstract thinking has been shown to positively shift the valence of experience, specifically improving evaluations of positive and negative experiences (Williams et al., 2014).

A paradoxical mindset is a mental framework that recognises and accepts the simultaneous existence of contradictory forces, that “leads to the flexibility to look at a problem from various different opposing angles as well as tolerance for different perspectives” (Miron-Spektor & Paletz, 2017). Moreover, a paradoxical mindset enable abstract thinking, and has been shown to positively influence creativity and innovation (Miron-Spektor & Paletz, 2017). Zhang & Han (2019) in a study of paradoxical leader behaviour of top managers showed that that paradoxical leader behaviour predicted entrepreneurial tendencies toward risk-taking, innovativeness, and proactivity.

The study of the paradoxical mindset have also shown potential to offer insights into the intuition-analysis tensions in entrepreneurship and innovation, and the role of optimism in creativity and escalation of commitment / tenacity (J. Keller & Sadler-Smith, 2019; Sleesman, 2019).

In addition, abstraction has been shown to be linked to self efficacy, desirability and entrepreneurial intentions, specifically that abstraction helps individuals overcome low levels of confidence in their entrepreneurial abilities (Bazzy et al., 2019). This was further supported by Donaldson et al. (Donaldson et al., 2021) in linking construal level with a temporal view of entrepreneurial intentions .

Abstract thinking is linked to the deliberative mindset in that it is concerned with why thoughts, desirability and choosing between alternatives. Whereas concrete thinking is linked to the implemental mindset in that is concerned with how thoughts.

Several studies in health and information security appeals (messages to the public), it has been shown that when desirability is not in question, for example no one wants to have their identity stolen, that concrete based messages are more effective (Schuetz, Benjamin Lowry, Pienta, & Bennett Thatcher, 2020). In contrast, when dealing with outcomes where desirability has not been established yet, for example to consume alcohol less, abstract (emotional) appeals are more effective (Herter et al., 2022).

Herter et al. (2022) goes further, in addition to testing whether individuals primed with a deliberative mindset respond better to abstract (emotional) messages, they also test across four experiments whether individuals primed in an implemental mindset respond more to concrete (rational) messages. They concluded that the effect is true both ways, that those in an implemental mindset sees goal related actions as progress towards the goal, and those in a deliberative mindset sees goal related actions as obtaining goal commitment (desirability).

2.6.3. Construal Level Theory

A lot of recent research in the impact of abstract thinking on attitudes, cognition, and behaviour uses construal level theory of psychological distance as a framework (Carrera, Fernández, Muñoz, & Caballero, 2019; Herter et al., 2022; Lee, 2019; Lerner et al., 2016; Liberman, Trope, & Wakslak, 2007).

Construal level theory posits that the psychological distances of an event or object determines how abstract the event or object is construed. Psychological distance is how far you feel distant from an event or object. This can be temporal distance, e.g. the event is far away, geographic distance, e.g. the object is far away, social distance, e.g. the person is thought of very different to you, or probable distance, e.g. the event is deemed to be very unlikely (Liberman et al., 2007; Trope & Liberman, 2010).

Construal level theory started out with mostly the construal of actions, and integrating Action Identification Theory. Over time construal theory has been applied wider beyond actions, and recently has shifted to abstract thinking to a global processing mindset (Freitas et al., 2004). Since a deliberative mindset assumes you are undecided about an issue, and a

concrete mindset that you have made up your mind, we have that decisional status alone can impact motivation and volition.

Freitas et al. (2004) showed by priming abstract and concrete mindsets where decisional statuses were not related also had an impact on what individuals thought of others self-regulatory efforts (preference for receiving strengths or weaknesses feedback). Similar studies since have shown that abstract mindset, independent of decisional state is related to willingness to perform desirable but demanding tasks, increasing positivity, and cognitive flexibility (Bazzy et al., 2019; Carrera et al., 2019; Williams et al., 2014)

Construal level theory has not been immune to critique. Benschop et al. (2021) showed that common priming techniques designed to induce abstract and concrete mindsets / construal / thinking does not hold up in larger samples when tested against the Behaviour Identification Form. Trautmann (2019) goes further by pulling into question any effect of psychological distance by highlighting conflicting results in published work, and despite the bias of publishing positive results.

The Behaviour Identification Form, developed Vallacher and Wegner (1989), is used in many studies as a way to measure construal level (Bazzy et al., 2019; Benschop et al., 2021; Carrera et al., 2019, 2018; Fleischmann & Burgmer, 2019; Fujita, Trope, Liberman, & Levin-Sagi, 2006; Kirshner, 2021; Reczek, Trudel, & White, 2018; W. Zhang & Zhang, 2022) .

The Behaviour Identification Form contains twenty-five actions and two options, a high or low level of construal where participants are asked to choose the item which best describes the action. For example, reading can either be “following lines of print” or “gaining knowledge”, and eating can either be “getting nutrition” or “chewing and swallowing”. Participants are given an example and assured that there is no incorrect answer.

Any behaviour can be described in many ways. For example, one person might describe a behaviour as “typing a paper”, while another might describe the behaviour as “pushing keys”. Yet another person might describe the behaviour as “expressing thoughts”. We are interested in your personal preferences for how a number of different behaviours should be described. On the following pages you will

find several different behaviours listed. After each behaviour will be two choices of different ways in which the behaviour might be identified. Here is an example:

Attending class

A. Sitting in a chair

B. Looking at the blackboard

Your task is to choose the identification, A or B, that best describes the behaviour for you. Please choose only one alternative for each pair. Of course, there are no right or wrong answers. People simply differ in their preferences for the different behaviour descriptions, and we are interested in your personal preferences. Be sure to mark your choice for each behaviour. Remember choose the description that you personally believe is more appropriate in each pair.

There are two versions of the Behaviour Identification Form, a dichotomous version (shown above) and a version where participants are asked to rate which item describes the action the best on a 6 or 7 point Likert scale.

Recent studies has shown that the that the Behaviour Identification Form is more likely to measure stable individual tendency (or trait) than able to capture situational variations in abstraction (Benschop et al., 2021; Nguyen, Grinfeld, Liberman, & Wakslak, 2023; Trautmann, 2019), which is in line with the original development of the instrument (Vallacher & Wegner, 1989).

More recently, there has been a push to update the Behaviour Identification Form, by removing items that are no longer salient in today's society or robust across different cultures, for example "chopping down a tree" or "chopping down a tree" (Nguyen et al., 2023). Items that could be linked to different abstract goals were also adjusted, for example "reading" is not only "gaining knowledge" but might be to some "relaxing".

Lastly, construal level theory, has also been pulled into behavioural economics, with some key aspects such as hyperbolic discounting linked to abstract thinking (Fiedler, 2007), however as noted, there is some criticism that construal level theory fails to explain prospect theory (losses and gains are valued differently).

2.7. Hypothesis and Conceptual Framework

As discussed above, the implemental mindset has been shown to be less risk averse, or stated differently, those in the pre-actional phase tend to be more optimistic about the feasibility of the task, and more importantly that this motivation carries over to new independent tasks (Freitas et al., 2004; L. Keller & Gollwitzer, 2017; Taylor & Gollwitzer, 1995).

In addition we have shown that the deliberative mindset has the opposite effect, in that weighing the pros and cons, a more realistic cautious view of risk is evoked (L. Keller & Gollwitzer, 2017).

We also presented that risk aversion is negatively correlated with choosing entrepreneurship (Cramer, Hartog, Jonker, & Van Praag, 2002), moreover we showed that this relationship is further intensified by lack of wealth via decreasing absolute risk aversion and hyperbolic absolute risk aversion (Bonilla, Vergara, & Watt, 2022; Kan & Tsai, 2006).

This leads to the following hypothesis to address the present study's research objective: to determine whether mindset priming influences the retraining choice of recently unemployed workers.

Hypothesis 1 (H1): Recently unemployed workers primed with an implemental mindset are more likely to select entrepreneurship as a retraining course over a general retraining course than those primed with a deliberative mindset.

From the Theory of Planned Behaviour (TPB) and the Entrepreneurial Event Model (EEM), we have that attitude toward entrepreneurship positively influences entrepreneurial intentions (Ajzen, 1991; Fayolle et al., 2015; Krueger, 2017; Tornikoski & Maalaoui, 2019; Zaremohzzabieh et al., 2019). We also have that entrepreneurial education (via entrepreneurial self-efficacy) influences entrepreneurial intentions (Ahmed, Chandran, Klobas, Liñán, & Kokkalis, 2020; Cui & Bell, 2022; Schlaegel & Koenig, 2014), moreover, we have that attitude toward entrepreneurship acts as a mediator between self-efficacy and entrepreneurial intentions (Arshad, 2019). We therefore posit that a positive attitude toward entrepreneurship will increase the probability of choosing entrepreneurship retraining courses.

This leads to the following hypotheses to address the present study's research objective: to assess the interaction between attitude toward entrepreneurship, entrepreneurial intention, mindset priming and retraining choice after recent unemployment.

Hypothesis 2a (H2a): Attitude toward entrepreneurship (ATE) increases entrepreneurial intention (EI) in recently unemployed workers.

Hypothesis 2b (H2b): Attitude toward entrepreneurship (ATE) increases the probability of choosing entrepreneurship retraining courses over a general retraining course. (Moderating variable, affecting strength of the relationship.)

Hypothesis 2c (H2c): Participants choosing entrepreneurship retraining courses have higher entrepreneurial intentions (EI) than participants choosing general retraining courses.

We also discussed in the sections above that in the pre-decisional action phase desirability factors are first weighed before crossing the Rubicon to the pre-actional action phase.

Moreover, that in the pre-decisional phase and in the deliberative mindset, people are more open-minded (Fujita et al., 2007; L. Keller et al., 2020). Open-mindedness can be defined as being aware of the fallibility of your own beliefs and attitudes (Riggs, 2010).

We therefore posit that when attitude toward entrepreneurship is low, that those in the deliberative mindset conditioning are more likely than those in the implemental mindset conditioning to choose entrepreneurial courses.

Hypothesis 3 (H3): Attitude toward entrepreneurship's (ATE) effect on retraining choice (RC) is moderated by deliberative/implemental mindset priming (MP). (Moderating variable, affecting strength of the relationship.)

As discussed, mindset priming has been shown in previous studies to influence construal level disposition (CLD) measures (Burgoon, Henderson, & Markman, 2013; Fujita & Roberts, 2010; Fujita et al., 2006; Malkoc, Zauberan, & Bettman, 2010). However, recent concerns about the BIF instrument's ability to measure changes in situational mindsets (Benschop et al., 2021; Nguyen et al., 2023; Trautmann, 2019) leaves us uncertain whether

deliberative / implemental mindset priming (MP) task will impact CLD in the current study's population.

This leads to the following hypothesis to address the present study's secondary research objective: to determine whether abstract and concrete mindset priming influences construal level disposition of recently unemployed workers.

Hypothesis 4 (H4): Deliberative/implemental mindset priming (MP) impacts construal level disposition (CLD) in recently unemployed workers. Specifically deliberative mindset priming increases abstract thinking tendency, and implemental mindset priming increases concrete thinking tendency.

We also have from the literature discussed above that CLD influences entrepreneurial intention (Bazzy et al., 2019), although we as highlighted by Donaldson et al. (2021) we do not know whether this holds across the different phases of entrepreneurship. Or in other words, entrepreneurship attitudes, intentions and behaviour is a process, and any study of intentions should include a temporal lens.

This leads to the following hypothesis to address the present study's secondary research objective: to determine whether construal level disposition is related to entrepreneurial intention of recently unemployed workers.

Hypothesis 5 (H5): Construal level disposition (CLD) increases entrepreneurial intention (EI) in recently unemployed workers.

The present study's hypotheses can therefore be summarised in a diagram as follows.

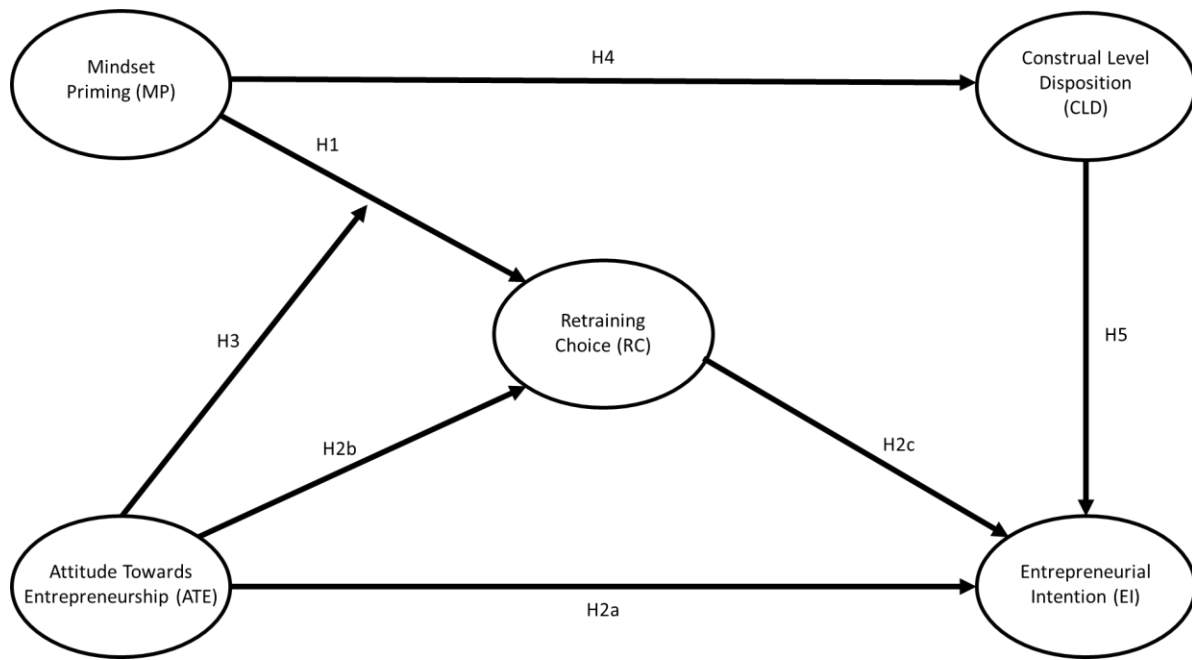


Figure 7: Hypothesis Framework

3. RESEARCH METHODOLOGY

3.1. Overview

(United Nations, 2015)(Caner & Okten, 2010; Dvouletý et al., 2018; Hetschko & Preuss, 2020; Li, 2017; Spears, 2011)(Hetschko & Preuss, 2020; Li, 2017)(Williams et al., 2014)(Bazzy et al., 2019)(Carrera et al., 2019)(Freitas et al., 2004; L. Keller et al., 2020; Taylor & Gollwitzer, 1995)(2019)(2017)

This chapter describes the design of the research study, including data collection methods, sampling, measures used, and well as ethical considerations.

Since this research study aims to test a theory, it will follow a deductive, quantitative research approach under the paradigm of positivism. Deductive research is focused on theory testing in contrast with inductive research which focusses on theory generation (Anderson et al., 2019; Remenyi, Williams, Money, & Swartz, 1998). Positivism adopts the position of natural scientists, where research explains reality based on objective study that can be generalised to the population (Kirkwood & Campbell-Hunt, 2007). This is appropriate as the nature of studying entrepreneurial intentions relies on capturing general patterns and mostly highly structured quantitative research that allows for theory testing (Anderson et al., 2019; Kirkwood & Campbell-Hunt, 2007; Maula & Stam, 2020).

3.2. Research Design

From our key research aim, to examine the impact of construal level mindset priming on entrepreneurial intentions and retraining choice after recent unemployment, we constructed the following primary research objectives:

- To determine whether mindset priming influences retraining choice after recent unemployment.
- To assess the interaction between attitude toward entrepreneurship, entrepreneurial intention, mindset priming and retraining choice after recent unemployment.

This study's secondary research objectives are:

- To determine whether abstract and concrete mindset priming influences construal level disposition of recently unemployed workers.
- To determine whether construal level disposition is related to entrepreneurial intention of recently unemployed workers.

Lastly, the current research study also tested the demographic profile (gender, age, income, or educational level) of participants as control variables.

The causal relationships described in the above research objectives were explored via a randomised control experiment using surveys. Although quantitative research can take the form of measuring interaction via causal-comparative research, the “gold standard” in assessing developmental interventions is randomised control experiments (Anderson et al., 2019; de Souza Leão & Eyal, 2019).

Primary data were collected for this cross-sectional research study (at a point in time). Given the limited timeframe of a masters’ thesis, the research focused on the perceptions, intentions, and career choice of recently unemployed workers. Future follow up studies could include longitudinal entrepreneurial venture creation and entrepreneurial venture success measures such as firm survival and firm profitability.

A group of recently unemployed workers were randomly split into three groups using a random univariate algorithm in Microsoft Excel. The three groups were invited to complete a twenty-five-minute online survey in exchange for four online training courses worth more than two thousand South African Rands and 6GB of data at the mobile operator of their choice.

In addition to a control group, one of the unemployed groups were primed with an abstract or decisional mindset and the other group with a concrete or implemental mindset (Freitas et al., 2004; Herter et al., 2022).

After priming, these groups were given a choice of general skills courses or entrepreneurial courses. In the same online questionnaire, attitude toward entrepreneurship (Arshad, 2019; Liñán & Chen, 2009), entrepreneurial intention (Botha & Bignotti, 2017; Thompson, 2009),

and construal disposition (Carrera et al., 2019; Vallacher & Wegner, 1989) were measured. In addition, respondents were asked to provide their gender, age, monthly income before the unemployment event and their highest level of education.

3.2.1. Construal Level and Action Phase Mindset Priming

There are several well-known cognitive primes to manipulate construal level and action phase (Carrera et al., 2019; Freitas et al., 2004; Fujita et al., 2006; Herter et al., 2022; L. Keller & Gollwitzer, 2017; Miron-Spektor & Paletz, 2017; Post, 2020; Watkins, Moberly, & Moulds, 2008).

Construal level, as discussed in chapter 2, can be summarised as a way people perceive the world, specifically, specifically that the more distant an object, the more likely it will be thought of abstractly, and the closer an object, the more likely it will be thought of concretely (Trope & Liberman, 2010). Whereas abstract thoughts are focused on the global and the why of things, concrete thoughts are focused on details and the how of things reflect general.

Action phase, as discussed in chapter 2, can be encapsulated as four phases of goal-directed behaviour, pre-decisional, pre-actional, actional, post-actional. We are specifically targeting the mindsets within the pre-decisional and pre-actional phase, the deliberative (choosing among different actions, asking why) and implemental mindset (feasibility considerations, asking how) respectively (Gollwitzer & Bayer, 1999; Taylor & Gollwitzer, 1995).

Some methods of the construal level and action phase mindset priming in recent literature are:

- Superordinate and subordinate: Participants are presented with several (between 20 and 40) items and asked to provide either a superordinate or subordinate example. For example with an item “singer”, in the superordinate (abstract mindset condition) participants were asked to say what singer is an example of or in which category does it fall, e.g. “entertainer”. Whereas in the subordinate (concrete mindset condition) participants were asked to give an example of a singer, e.g. “Taylor Swift” (Fujita et al., 2006; Kirshner, 2021).

- Personal unresolved problems: Participants in the abstract mindset condition are asked to name a non-mundane personal unresolved “should I, should I not?” problem, and then asked to list long term pros and cons for making the decision. In the concrete mindset condition participants are asked to name a non-mundane personal “I intend to...” project where they have not taken any steps yet, and then are asked to list five necessary steps to complete the project and plan out when, where and how to take these steps (L. Keller & Gollwitzer, 2017).
- Explaining events: Participants are asked to read several (between 8 and 30) short written scenarios, and in the abstract mindset condition is asked to explain why it happened, and in the concrete mindset condition is asked to explain how it happened (Post, 2020; Watkins et al., 2008).
- Why and how interrogation: Participants in the abstract mindset priming are asked to consider why they would do a specific activity, and participants in the concrete mindset priming are asked to consider how they would do the same activity. The why and how questions are structured further by asking consecutive four follow up why and how questions using the previous answer. In other words, in the abstract mindset priming participants were asked to progressively think abstractly about an activity, whereas in the concrete mindset priming participants were asked to progressively think concretely about an activity. In addition after this task participants are asked to provide three reasons why they would do the activity or three ways how to do the activity (Freitas et al., 2004; Praja, Takarinawati, & Sinaga, 2020).

In the current research study, participants were primed by why and how interrogation. This method was chosen instead of the superordinate and subordinate method since we are mainly concerned with the action phase or deliberative/implemental mindset and impact on retraining choice, and not only with abstract thinking disposition. Additionally, since we want to measure abstract thinking disposition, using the superordinate and subordinate method would have influenced the behaviour identification form results.

The why and how interrogation was chosen instead of the personal unresolved problem method for goal consistency and to ensure participants understand the instructions via an

online survey. Lastly the why and how interrogation was chosen instead of the explaining events method for brevity and simplicity, and since it has shown more consistent successful mindset priming in recent literature (Carrera et al., 2019, 2018; Freitas et al., 2004; Herter et al., 2022).

Participants in the current research study in the abstract or deliberative mindset condition were given the following example (adjusted from Freitas (2004)) before being asked to complete a similar why ladder for the activity “improving and maintaining one’s physical health (fitness)”:

For everything we do, there always is a reason why we do it. Moreover, we often can trace the causes of our behaviour back to broad life-goals that we have. For example, you currently are participating in a research survey.

Why are you doing this? Perhaps to get access to educational content. Why are you wanting to access to educational content? Perhaps to improve your skills. Why improve your skills? Perhaps because you want to earn more money by finding a job, or learning to run your business more effectively, or learning to start up a small business. Why earn more money? Perhaps because you feel that doing so you can support your family and friends, which can bring you happiness in life.

Abstract conditioned participants were then asked to write down three possible life goals, reasons or purposes for improving or maintaining one’s physical health (fitness).

Participants in the current research study in the concrete or implemental mindset condition were given the following example (adjusted from Freitas (2004)) before being asked to complete a similar how ladder for the activity “improving and maintaining one’s physical health (fitness)”:

For everything we do, there always is a process of how we do it. Moreover, we often can follow our broad life-goals down to our very specific behaviours. For example, like most people, you probably hope to find happiness in life.

How can you do this? Perhaps by supporting your family and friends, which can bring joy in life. How can you do this? Perhaps by earning more money by finding a job or learning more about starting or running a small business. How do you earn more money? Perhaps by improving your skills. How do you improve your skills? Perhaps by getting access to educational courses. How do you get access to educational courses? Perhaps by participating in a research survey that you are completing today.

Concrete conditioned participants were then asked to write down three steps or methods for improving or maintaining one's physical health (fitness).

A complete detailed copy of the Deliberative / Implemental Mindset Priming (MP) task used in the current research study is provided in the appendix.

3.2.2. Retraining Choice

After the mindset priming task, participants were given a choice of general skills courses or entrepreneurial courses.

Please select which type of educational courses you would like to receive?

- 1. Entrepreneurial and Starting a Small Business Courses*
- 2. General Skills and New Job Readiness Courses*

The online training courses were designed to enable the recently unemployed workers to start earning money. Each set of four training courses were expected to take 45 hours, or roughly 1 to 2 months (depending on time spent per day).

The four entrepreneurial courses were designed to improve business acumen, managing business processes and basic entrepreneurial skills such as opportunity recognition and marketing skills. The four general skills courses were designed to help participants be more marketable for a new job (e.g. personal branding and work readiness).

3.2.3. Attitude Toward Entrepreneurship

Attitude Toward Entrepreneurship (ATE), as discussed in chapter 2, can be summarised as a way people perceive the world, specifically, “the degree to which the individual holds a positive or negative personal valuation of being an entrepreneur” (Ajzen, 1991; Arshad, 2019; Bazy et al., 2019; Liñán & Chen, 2009; Trope & Liberman, 2010).

ATE in the current research study was measured by five items developed by Liñán and Chen (2009) and used by Arshad (2019).

Table 1: Attitude Toward Entrepreneurship

	Very Untrue	Untrue	Slightly Untrue	Slightly True	True	Very True
1. Being an entrepreneur implies more advantages than disadvantages to me.						
2. A career as entrepreneur is attractive for me.						
3. If I had the opportunity and resources, I'd like to start a firm.						
4. I would be very happy to be an entrepreneur						
5. Among various options, I would rather be an entrepreneur.						

The order of these items (and the entrepreneurial intention items in 3.2.4) were provided in randomised order per respondent. This measure was chosen since it showed good reliability and validity across several cultural groups (Arshad, 2019; Liñán & Chen, 2009).

3.2.4. Entrepreneurial Intention

Entrepreneurial Intention (EI), as discussed in chapter 2, can be defined as a representation of the direction of future entrepreneurial action which affects individuals' choices and behaviour (Fayolle et al., 2015). The theory of planned behaviour as originally conceived by Ajzen (1991) provides a model to link individual attitudes to entrepreneurial intention. There has been many updates to the model since the original conception, but the basic premise remains

robust (Fayolle et al., 2015; Krueger, 2017; Tornikoski & Maalaoui, 2019; Zaremohzzabieh et al., 2019).

EI in the current research study was measured by ten items developed by Thompson (Thompson, 2009), and used in South Africa by Botha & Bignotti (2017).

Table 2: Entrepreneurial Intention

	Very Untrue	Untrue	Slightly Untrue	Slightly True	True	Very True
1. I intend to set up a small business in future						
2. I plan my future carefully						
3. I read business newspapers						
4. I never search for business start-up opportunities						
5. I read financial planning books						
6. I am saving money to start a small business						
7. I never read books or online articles on how to start a small business						
8. I plan my finances carefully						
9. I have no plans to ever launch my own business						
10. I spend time learning about how to start a small business						

Items 2, 3, 5 and 8 were only included as red herrings and are not included in the final measure. The order of these items (and the ATE items in 3.2.3) were provided in randomised order per respondent. This measure was chosen since it showed good reliability and validity across several cultural groups (Botha & Bignotti, 2017; Thompson, 2009).

3.2.5. Construal Level Disposition

As discussed in chapter 2, Construal Level Disposition (CLD) as posited by Action Identification Theory, can be summarised as the extent to which an individual has a tendency toward abstract or concrete thinking (Bazzy et al., 2019). As mentioned abstract thoughts are focused on the global and the why of things, concrete thoughts are focused on details and the how of things reflect general.

CD in the current research study was measured by the Behavioural Identification Form (BIF) developed Vallacher and Wegner (1989), and used in several studies (Bazzy et al., 2019; Benschop et al., 2021; Carrera et al., 2019, 2018; Fleischmann & Burgmer, 2019; Fujita et al., 2006; Kirshner, 2021; Reczek et al., 2018; W. Zhang & Zhang, 2022) . The BIF contains twenty-five actions and two options, a high or low level of construal where participants are asked to choose the item which best describes the action.

Table 3: Behaviour Identification Form

	A.	B.
1. Making a list	Getting Organized	Writing things down
2. Reading	Following lines of print	Gaining knowledge
3. Joining the Army	Helping the nation's defence	Signing up
4. Washing Clothes	Removing odours from clothes	Putting clothes into the machine
5. Picking an Apple	Getting something to eat	Pulling an apple off a branch
6. Chopping down a tree	Wielding an axe	Getting firewood
7. Measuring a room for carpeting	Getting ready to remodel	Using a measuring tape
8. Cleaning the house	Showing one's cleanliness	Vacuuming the floor
9. Painting a room	Applying brush strokes	Making the room look fresh

	A.	B.
10. Paying the rent	Maintaining a place to live	Giving the property owner money
11. Caring for houseplants	Watering plants	Making the room look nice
12. Locking a door	Putting a key in the lock	Securing the house
13. Voting	Influencing the election	Marking a voting slip
14. Climbing a tree	Getting a good view	Holding on to branches
15. Filling out a personality test	Answering questions	Revealing what you're like
16. Toothbrushing	Preventing tooth decay	Moving a brush around in one's mouth
17. Taking a test	Answering questions	Showing one's knowledge
18. Greeting someone	Saying hello	Showing friendliness
19. Resisting temptation	Saying "no"	Showing moral courage
20. Eating	Getting nutrition	Chewing and swallowing
21. Growing a garden	Planting seeds	Getting fresh vegetables
22. Traveling by car	Following a map	Seeing countryside
23. Having a cavity filled	Protecting your teeth	Going to the dentist
24. Talking to a child	Teaching a child something	Using simple words
25. Pushing a doorbell	Moving a finger	Seeing if someone's home

This measure was chosen since it showed good reliability and validity across several studies (Bazzy et al., 2019; Benschop et al., 2021; Carrera et al., 2019, 2018; Fleischmann & Burgmer, 2019; Fujita et al., 2006; Kirshner, 2021; Reczek et al., 2018; W. Zhang & Zhang, 2022). There are two versions of the BIF, a dichotomous version (shown above) and a version where participants are asked to rate which item describes the action the best on a 6 or 7 point Likert scale. The dichotomous version of the BIF was chosen for survey brevity (i.e. to reduce the survey length fatigue and the chance that respondents do not complete the survey.)

We specifically refer to the BIF measuring Construal Level Disposition (CLD) or Abstract Thinking Tendency (ATT) and not a mindset or state, given recent studies showing that the BIF instrument is more likely to measure stable individual tendency (or trait) than able to capture situational variations in abstraction (Benschop et al., 2021; Nguyen et al., 2023; Trautmann, 2019), which is in line with the original development of the instrument (Vallacher & Wegner, 1989).

3.3. Sampling

Primary data were collected for this cross-sectional research study (at a point in time). Given the limited timeframe of a masters' thesis, the research focused on the perceptions, intentions, and career choice of recently unemployed workers.

Recently unemployed workers were identified from the database of a large retail bank in Southern Africa. The two groups of unemployed workers between the ages of 25 and 60 were identified:

- A. Banking clients with credit products that has been retrenched in the last 12 months, and that had retrenchment credit insurance, in other words whose credit instalments have been paid on their behalf during the period of retrenchment. Identified in May 2023 and consisted of 1,740 clients.
- B. Banking clients that were employed (confirmed salaried) but lost their income (confirmed unemployed) 6 months ago. Identified in September 2023 and consisted of 4,449 clients.

3.3.1. Required Sample Size

Before selecting our sample, we first calculated the required sample size to ensure power of 80%, and 5% level of significance.

The power of a research study is the inverse of the probability of making a Type II error, or in other words the probability of failing to detect differences in a sample when they exist in the population. This probability to detect false negatives, is denoted by β . The power of a study, i.e. $1 - \beta$, quantifies the potential of a research study to find differences in the sample that exists in the population, and most research studies accept a power of 80% (Friedman, Furberg, Demets, Reboussin, & Granger, 2015). Level of significance is the probability of making a Type I error, or in other words the probability of finding a false positive, and is denoted by α .

We utilise the randomised control experiment with a dichotomous outcome (retraining choice) required sample size formula (Friedman et al., 2015), where Δ is the expected difference the experiment will have, δ is the expected standard deviation, and Z is the statistic from a normal distribution with mean 0 and variance 1:

$$n = \frac{2 (Z_{\alpha} + Z_{1-\beta})^2 \delta^2}{\Delta^2}$$

To calculate what the expected difference driven by the deliberative/implemental mindset priming (MP), we utilised Keller & Gollwitzer's (2017) mindset vs risk taking study. Gollwitzer found an 8.49 difference between those primed with an implemental mindset vs those primed with a deliberative mindset. The control standard deviation on the risk-taking measure was 12.94.

We don't expect that the present research study will have as big an effect on retraining choice as Keller & Gollwitzer (2017) found on risk taking behaviour. To estimate the reduced expected difference, we reviewed recent studies on entrepreneurs' risk-taking behaviour. Hvide & Panos (2014) estimates that entrepreneurs risk tolerance is 50% higher than non-entrepreneurs. Furthermore, Hetschko & Preuss (2020) estimates that job loss increases risk aversion by 10%. Given this, we estimate that the difference between those choosing to entrepreneurship retraining and general retraining is 60% of the expected difference in risk

taking behaviour. Using this estimate we reduced the differences observed by Keller & Gollwitzer (2017) by 40%, to get to an expected difference of $8.49 \times 60\% = 5.09$.

This yields a required sample size of 102:

$$n = \frac{2 (1.96 + 0.84)^2 12.94^2}{5.09^2} = 101.3$$

To allow incomplete or invalid responses, the research study aimed to recruit approximately 120 participants.

3.3.2. Sample Selection

Given an expected response rate of 10%, all 1,679 clients with email addresses in phase-A of this research study were contacted between June 2023 and September 2023. The remaining 61 clients didn't have an email address on file.

Due to a completion rate of 5.2% in phase-A of the study, a random sample of 4,000 additional clients were contacted via Short-Message-Service (SMS), in phase-B between October 2023 and January 2024. (SMS was used in phase-B given the lack of email addresses on database.)

3.3.3. Data Collection

In phase-A of the survey, the clients were randomly split into two groups using a random univariate algorithm in Microsoft Excel. The two groups were invited to complete a twenty-five-minute online survey in exchange for four online training courses worth more than two thousand South African Rands and 6GB of data at the mobile operator of their choice.

A survey is a way of examining verbal or written opinions, behaviour, attitudes etc. by asking people questions (Ghauri & Gronhaug, 2005). The current research study used written surveys as it aligns with the research strategy set out in section 3.1 and the primary research objectives listed above. Online surveys (via a white-labelled platform powered by

SurveyMonkey) were used to increase geographic reach. The survey was rendered in both a desktop and mobile friendly format.

One of the unemployed groups were primed with an abstract or decisional mindset and the other group with a concrete or implementational mindset (Freitas et al., 2004; Herter et al., 2022).

After priming, these groups were given a choice of general skills courses or entrepreneurial courses. In the same online questionnaire, attitude toward entrepreneurship (Arshad, 2019; Liñán & Chen, 2009), entrepreneurial intention (Botha & Bignotti, 2017; Thompson, 2009), and construal disposition (Carrera et al., 2019; Vallacher & Wegner, 1989) were measured. In addition, respondents were asked to provide their gender, age, monthly income before the unemployment event and their highest level of education. A copy of the survey used in the current research study is provided in the appendix.

In phase-B of the survey, the clients were randomly split into three groups using a random univariate algorithm in Microsoft Excel. The third group being a control group, which received no mindset priming.

In phase-A, 169 clients (10.0%) started the survey, but only 88 clients (5.2%) completed the survey. In phase-B, 95 clients (2.4%) started the survey, but only 56 (1.4%) clients completed the survey. This yielded a combined 144 participants in the research study.

The lower response rate in phase-B was mostly attributed to the communication channel, which doesn't allow for a longer invitation, and a large percentage of spam messages clients receive via SMS leading to low open rates. Similar response rates were reported by other survey campaigns within the bank. The literature further suggests that high response rates are less important than ensuring the minimum number of participants are recruited (Fosnacht, Sarraf, Howe, & Peck, 2017). Fosnacht et al. analysed 555 survey administrations and found that there were no significant differences between a 5% and 75% response in estimating the population mean once the minimum number of respondents were obtained.

To ensure that surveying method did not impact the survey results, phase-A and phase-B respondents were compared on key constructs and demographic variables and no significant differences were found.

3.4. Data Analysis Methods

Data analyses were conducted using SAS Enterprise Guide, release version 7.11 HF3.

Firstly, construct reliability (Cronbach's alpha), and discriminant validity (Confirmatory Factor Analysis) of previously validated measures used in this research study (entrepreneurial intention, attitude toward entrepreneurship, and construal level disposition), were confirmed in the current population.

Reliability measures internal consistency of a construct (correlation between construct items) and ranges between 0 and 1. Reliability can also be used to calculate the amount of measurement error in a test. For example, if the reliability value of a construct is 0.9, then the measurement error can be calculated by subtracting the square of reliability from 1, i.e. $1 - 0.9^2 = 0.19$, i.e. there is a 0.19 error variance in the scores (Tavakol & Dennick, 2011).

Cronbach's alpha is widely utilised as a measure of test reliability (Tavakol & Dennick, 2011; Zikmund, Babin, Carr, & Griffin, 2009), however needs to be used only where appropriate and in combination with other tests like factor analysis (Agbo, 2010; McNeish, 2018; Tavakol & Dennick, 2011). Cronbach alpha should ideally be between 0.7 and 0.95 (Tavakol & Dennick, 2011).

Discriminant validity is the extent not only of interrelatedness of items in the same construct, but also not-relatedness to items not on different constructs (Ghauri & Gronhaug, 2005; Zikmund et al., 2009). Confirmatory Factor Analysis is frequently used to test convergent and discriminant validity (Hurley et al., 1997; Zikmund et al., 2009) by using the method proposed by Fornell & Larcker (1981): the square root of the average variance extracted (AVE) were calculated and compared to the correlations of the other constructs. The AVE of a construct should ideally be higher than 0.5, and the squared root of AVE should be higher than correlations with other constructs (Arshad, 2019; Fornell & Larcker, 1981; Voorhees, Brady, Calantone, & Ramirez, 2016).

After confirming construct reliability and discriminant validity, and in addition to descriptive statistics, the following statistical analysis were conducted:

- Hypothesis 1: Chi-square and Fisher's exact test
- Hypothesis 2: T-test, ANOVA, and Pearson and Spearman correlations
- Hypothesis 3: Logistic regression
- Hypothesis 4: T-test, and ANOVA
- Hypothesis 5: Pearson and Spearman correlation

The Chi-square and Fisher's exact test is used to test whether two categorical variables are independent (Albers, 2017; Stockemer, 2018), and therefore appropriate statistical tests to use for our hypothesis that our two primed groups impacts a choice between two types of retraining courses.

A t-test is a statistical test whether two groups have different means, and therefore appropriate to use to test our hypothesis on two retraining groups have different attitude toward entrepreneurship (ATE), entrepreneurial intention (EI) and construal level disposition (CLD) mean scores (Albers, 2017). We also utilise the Mann-Whitney U test, also referred to as the Wilcoxon rank-sum test, in cases where normality assumptions are breached. The Wilcoxon Mann-Whitney tests the hypothesis whether two populations have the same median (Fay & Proschan, 2010).

An ANOVA (one-way analysis of variance) is a statistical test whether three or more groups have different means, and therefore appropriate to use to test our hypothesis on three mindset groups have different attitude toward entrepreneurship (ATE), entrepreneurial intention (EI) and construal level disposition (CLD) mean scores (Albers, 2017). We also utilise the Kruskal-Wallis test, in cases where normality assumptions are breached. The Kruskal-Wallis tests the hypothesis whether two or more populations have the same median (Fay & Proschan, 2010).

Pearson and Spearman correlations are respectively parametric and non-parametric measures of association between continuous or ordinal variables (Albers, 2017; Stockemer, 2018), and therefore appropriate to test our hypotheses that our continuous variables ATE, EI, CLD are

related. We use the Spearman correlation where normality assumptions are not met (Albers, 2017).

Logistic regression is appropriate to relate a dichotomous dependent variable with a several categorical or continuous independent (or explanatory) variables (Peng, Lee, & Ingersoll, 2002), and therefore will be used to test our hypotheses that retraining choice is influenced by not only priming mindset and attitude toward entrepreneurship (ATE), but also the interaction between these two variables (i.e. priming mindset is moderated by attitude toward entrepreneurship).

3.5. Research Criteria

To ensure objectivity (Frambach, Van der Vleuten, & Durning, 2013), respondents were informed of anonymity and voluntary participation, and were not made aware that the choice of training course was important (participants were told that the education vouchers were to say thank you for completing the survey). Survey data is kept in a version-controlled password protected secure folder to ensure confidentiality and data integrity.

To confirm the integrity of the deliberative (abstract) / implemental (concrete) mindset priming, and check for manipulation (Herter et al., 2022), two independent judges read the responses to the separate life goals / methods follow-up question, and classified the responses as deliberative, implemental or neither. Disagreements between judges were resolved by a third judge. Of the 123 participants that were primed, 91.9% of responses were congruent with the mindset prime.

As discussed in the data analysis methods section above, we confirmed the construct reliability and discriminant validity for the previously constructed measures, entrepreneurial intention (EI), attitude toward entrepreneurship (ATE), and construal level disposition (CLD) via confirmatory factor analysis. The result of this analysis is presented in the sections that follow.

3.5.1. Attitude Toward Entrepreneurship and Entrepreneurial Intention

The theoretical two factor confirmatory factor analysis (CFA) showed a poor fit, with three items standardised factor loadings lower than 0.5: EI item 4, I never search for business start-up opportunities; EI item 6, I am saving money to start a small business; ATE item 1, being an entrepreneur implies more advantages than disadvantages to me. In addition to the lower factor loadings, excluding EI item 6 has face validity in that this population consists of people who has recently lost their jobs.

The two factor CFA with the three low loading items removed, showed a good fit with the data with all five fit indices above the threshold value (Hayashi, Bentler, & Yuan, 2011; Maydeu-Olivares & García-Forero, 2009).

Table 4: Attitude Toward Entrepreneurship and Entrepreneurial Intention CFA Fit Index

Fit Index Type	Name of Fit Index	Value	Threshold Value
Absolute Fit Measures	GFI	0.97	>0.90
	RMSEA	0.03	<0.08
Incremental Fit Index	CFI	0.99	>0.95
	NFI	0.96	>0.90
Parsimonious Fit Index	Normed Chi-Square	1.10	1 to 5

The factor loadings, average variance extracted, correlation within construct and Cronbach's alpha for ATE and EI is shown in the table below.

Table 5: Attitude Toward Entrepreneurship and Entrepreneurial Intention Factor Loadings

Construct	Item	Factor Loading (Standardised)	Average Variance Extracted (AVE)	Correlation within Construct (Standardised)	Cronbach Alpha (Standardised)
Entrepreneurial Intention (EI)	EI1	0.71	0.89	0.57	0.78
	EI7*	0.72		0.50	
	EI9*	0.55		0.63	
	EI10	0.75		0.63	

Construct	Item	Factor Loading (Standardised)	Average Variance Extracted (AVE)	Correlation within Construct (Standardised)	Cronbach Alpha (Standardised)
Attitude Toward Entrepreneurship (ATE)	ATE2	0.78	0.95	0.70	0.88
	ATE3	0.69		0.64	
	ATE4	0.93		0.85	
	ATE5	0.86		0.80	

*Items were reversed.

Given that the Cronbach alpha's are higher than 0.7, and all the standardised factor loadings are higher than 0.5, and the AVE is higher than the squared factor correlation between the constructs (0.59), we conclude that the shortened Attitude Toward Entrepreneurship and Entrepreneurial Intention measures are reliable and valid with this research study's population (Arshad, 2019; Fornell & Larcker, 1981; Voorhees et al., 2016).

3.5.2. Construal Level Disposition

The theoretical factor confirmatory factor analysis (CFA) of the 25 item CLD measure showed a poor fit, with a GFI of 0.73. Removing items with standardised factor loadings below 0.5 in an iterative process (i.e. one-by-one), resulted in a 9 item CLD.

In addition to the lower factor loadings, removing the items has some face validity. As discussed by Nguyen et al. (2023) not all populations would be familiar with all of the actions, and would be difficult for some participants to image doing, e.g. CLD item 3, joining the army, and CLD item 6, chopping down a tree.

The 9 item CFA, showed a good fit with the data with all five fit indices above the threshold value (Hayashi et al., 2011; Maydeu-Olivares & García-Forero, 2009).

Table 6: Behaviour Identification Form CFA Fix Index

Fit Index Type	Name of Fit Index	Value	Threshold Value
Absolute Fit Measures	GFI	0.94	>0.90
	RMSEA	0.05	<0.08
Incremental Fit Index	CFI	0.98	>0.95
	NFI	0.93	>0.90
Parsimonious Fit Index	Normed Chi-Square	1.39	1 to 5

The factor loadings, average variance extracted, correlation within construct and Cronbach's alpha for ATE and EI is shown in the table below.

Table 7: Behaviour Identification Form Factor Loadings

Construct	Item	Factor Loading (Standardised)	Average Variance Extracted (AVE)	Correlation within Construct (Standardised)	Cronbach's Alpha (Standardised)
Construal Level Disposition (CLD)	BIF8	0.58	0.88	0.56	0.88
	BIF9	0.60		0.57	
	BIF10	0.62		0.59	
	BIF12	0.59		0.55	
	BIF16	0.76		0.68	
	BIF17	0.70		0.64	
	BIF18	0.71		0.67	
	BIF20	0.86		0.77	
	BIF25	0.54		0.53	

Given that the Cronbach alpha is higher than 0.7, and all the standardised factor loadings are higher than 0.5, and the AVE is higher than 0.5, we conclude that the 9 factor CLD measure is reliable and valid with this research study's population (Arshad, 2019; Fornell & Larcker, 1981; Voorhees et al., 2016).

3.5.3. Control and Treatment Groups Demographic Profile Similarity

To ensure well represented treatment and control groups, several demographic variables (gender, age, income, highest level of education) were obtained, and contingency tables with chi-square tests were used to test for demographic profile similarity.

Gender

The gender distribution over the mindset groups is shown in the table below:

Table 8: Gender & Mindset Group

Count (and column %)	Abstract / Deliberative Mindset	Control	Concrete / Implemental Mindset
Female	20 (31.3%)	9 (56.3%)	25 (43.1%)
Male	44 (68.8%)	7 (43.1%)	33 (56.9%)

Statistic	Value	Probability
Chi-Square	4.02	0.13

The Chi-square tests results show that we cannot reject that null-hypothesis that the two variables are independent, i.e. gender does not differ significantly over the three mindset groups.

Age

The age distribution over the mindset groups is shown in the table below:

Table 9: Age & Mindset Group

Count (and column %)	Abstract / Deliberative Mindset	Control	Concrete / Implemental Mindset
Older than 35 years	32 (50%)	8 (50%)	25 (43.1%)
Younger than 35 years old	32 (50%)	8 (50%)	33 (56.9%)

Statistic	Value	Probability
Chi-Square	0.64	0.73

The Chi-square tests results show that we cannot reject that null-hypothesis that the two variables are independent, i.e. age does not differ significantly over the three mindset groups.

Income (before unemployment event)

The income distribution over the mindset groups is shown in the table below:

Table 10: Income (before unemployment event) & Mindset Group

Count (and column %)	Abstract / Deliberative Mindset	Control	Concrete / Implemental Mindset
Less than R15,000	50 (78.1%)	15 (93.8%)	44 (75.9%)
More than R15,000	14 (21.9%)	1 (6.3%)	14 (24.1%)

Statistic	Value	Probability
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Chi-Square	2.47	0.29
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The Chi-square tests results show that we cannot reject that null-hypothesis that the two variables are independent, i.e. income does not differ significantly over the three mindset groups.

Highest Educational Level

The education distribution over the mindset groups is shown in the table below:

Table 11: Highest Education Level & Mindset Group

Count (and column %)	Abstract / Deliberative Mindset	Control	Concrete / Implemental Mindset
Grade 12 or less	39 (60.9%)	12 (75%)	35 (60.3%)
More than Grade 12	25 (39.1%)	4 (25%)	23 (39.7%)

Statistic	Value	Probability
Chi-Square	1.244	0.54

The Chi-square tests results show that we cannot reject that null-hypothesis that the two variables are independent, i.e. education does not differ significantly over the three mindset groups.

3.6. Research Limitations

This research study was conducted in a particular economic environment in Southern Africa, and results may not be transferrable to other economic times or geographies, such as prosperous economic periods with low unemployment, or in geographic regions with sufficient social security for unemployed workers. However, we note that the sample was selected from a large Southern African retail bank database with a sizable market share across

a wide range of LSM (living standards measure) groups, and that this research study adds to the existing body of knowledge which is dominated by business student samples. As argued by Krueger et al. (2000b) given the sensitivity of intentional process to initial conditions it is vital that entrepreneurial intention research includes non-entrepreneurial subjects, to which we add, and vital to include non-business orientated subjects.

We note the low response rate within this research study, although also highlight the conclusion of Fosnacht et al. (2017) after a review of 555 studies, that high response rates are less important than ensuring the minimum number of participants are recruited. Additionally, we acknowledge that given the nature of the survey methodology, i.e. an online questionnaire, that respondents are skewed towards those with stable internet access.

Given the limited timeframe of a masters' thesis, the research study focused on perceptions, intentions, and retraining choice. Future follow up studies should include longitudinal entrepreneurial venture creation and success measures.

3.7. Research Ethics

During the primary data collection, the following statement were provided to all participants to explain the purpose and expected outcomes of the study:

The aim of this research survey is to understand more about how people think about their goals, with a specific focus on entrepreneurship (starting or running a small business).

Please note that you do not have to participate, i.e. your participation is voluntary. The choice to participate is yours alone. If you choose not to participate, there will be no negative consequence. If you choose to participate, but wish to withdraw at any time, you will be free to do so without negative consequence.

The research survey consists of an online questionnaire which is expected to take 20 – 25 minutes to complete.

There are no anticipated risks or benefits in completing this survey, other than that encountered in daily life. There are no right or wrong answers, but it is common for

people to feel a certain amount of anxiety when completing a survey. You can stop at any time you feel uncomfortable.

The results of this study may be published or otherwise reported at conferences, but participants' identities will in no way be revealed (data will be reported anonymously and bear no identifiers that could connect data to individual participants). To ensure confidentiality the data file of compiled results will be kept in a password protected folder.

Participants were also informed that they could contact the research at any time if they had any concerns or questions. To ensure confidentiality and data integrity, all survey data is kept in a version-controlled password protected secure folder.

This research study was cleared by the University of Cape Town's ethics committee before proceeding with any data collection.

4. PRESENTATION OF RESULTS

4.1. Descriptive Statistics

A 138 were comfortable to share demographic information. The Gender, Age, Monthly Income and Highest Level of Education distributions are shown in the table below. The bulk of the respondents was between 25 and 34 years old (41.0%), earned less than R15,000 a month before the unemployment event (75.7%), and had Grade 12 as a highest qualification (44.4%).

Table 12: Descriptive Statistics

Gender	Frequency	Percentage
Female	54	37.5%
Male	84	58.3%
Unknown	6	4.2%
Age	Frequency	Percentage
Younger than 25 years old	14	9.7%
25 - 34 years old	59	41.0%
35 - 44 years old	38	26.4%
45 - 54 years old	22	15.3%
Older than 55 years old	5	3.5%
Unknown	6	4.2%
Monthly Income (Before Unemployment Event)	Frequency	Percentage
Less than R15,000	109	75.7%
More than R15,000 but less than R25,000	17	11.8%
More than R25,000 but less than R50,000	11	7.6%
More than R50,000 but less than R75,000	1	0.7%
Unknown	6	4.2%

Highest Level of Education	Frequency	Percentage
Less than Grade 10	3	2.1%
Grade 10 or equivalent	19	13.2%
Grade 12 or equivalent	64	44.4%
Diploma or Certificate	35	24.3%
A bachelor's degree	10	6.9%
An honours' degree	3	2.1%
A masters or doctoral degree	4	2.8%
Unknown	6	4.2%

The table below shows the distributions of the retraining choice (RC) and deliberative / implemental mindset priming (MP) response.

Table 13: Retraining Choice and Mindset Priming Distribution

Retraining Choice	Frequency	Percentage
General Skills and New Job Readiness Courses	57	39.6%
Entrepreneurial and Starting a Small Business Courses	87	60.4%
Mindset Priming	Frequency	Percentage
Abstract / Deliberative Mindset	65	45.1%
Control Group	21	14.6%
Concrete / Implemental Mindset	58	40.3%

To ensure the three mindset priming groups has a similar demographic profile (gender, age, income, educational level), Chi-Square (and Fisher's Exact) tests were performed, and no significant differences were found.

The distributional statistics of the 3 constructs utilised in this research study is shown in the table below.

Table 14: Entrepreneurial Intention, Attitude Toward Entrepreneurship, and Construal Level Disposition Distributions

Construct	Mean	Std Dev	Median	Skewness	Kurtosis
Entrepreneurial Intention (EI)	4.7	1.0	5	-0.99	0.90
Attitude Toward Entrepreneurship (ATE)	5.1	0.9	5.25	-1.75	4.5
Construal Level Disposition (CLD)	6.6	2.8	8	-1.11	-0.12

Skewness and Kurtosis describes the spread and height of a normal distribution (Hayashi et al., 2011). Or in other words Skewness looks at how symmetrical a variable is, and Kurtosis looks at how peaked a variable is. For many statistical tests, it is important to know whether the variable distribution approximates a normal distribution. As a general rule of thumb Skewness and Kurtosis values between -1 and +1 is considered normal, although values between -2 and 2 is also acceptable (Hayashi et al., 2011). We note that the ATE construct is not normally distributed and we will utilise non-parametric tests for this construct.

The reduced CLD construct mean of 6.6 (or 73%) in the current research study is similar to an average of 69% in entrepreneurial CLD literature (Bazzy et al., 2019). However, interestingly, we note that the ATE is higher at 5.1 (or 86%) and the EI lower at 4.5 (or 73%) than recent theory of planned behaviour (TBP) literature at 81% and 79% respectively (Bazzy et al., 2019).

4.2. Hypothesis 1: Mindset Priming and Retraining Choice

Literature discussed in chapter 2 has shown that scarcity worsens a person's ability to deal with ambiguity and increases risk aversion (Hetschko & Preuss, 2020; Li, 2017), a key part of the entrepreneurial experience. Consequently, investment in education and interventions to increase entrepreneurial intentions and success amongst the poor or unemployed is unlikely to succeed without addressing risk aversion first.

In addition, as discussed in chapter 2, the implemental mindset has been shown to be less risk averse, or stated differently, those in the pre-actional phase tend to be more optimistic about the feasibility of the task, and more importantly that this motivation carries over to new independent tasks (Freitas et al., 2004; L. Keller & Gollwitzer, 2017; Taylor & Gollwitzer, 1995).

This led to Hypothesis 1, that recently unemployed workers primed with an implemental mindset are more likely to select entrepreneurship as a retraining course over a general retraining course than those primed with a deliberative mindset.

The Chi-square to test this hypothesis (that mindset priming influences retraining choice) is shown in the table below:

Table 15: Mindset Priming and Retraining Choice

Count (and column %)	Abstract / Deliberative Mindset	Control	Concrete / Implemental Mindset
Entrepreneurial and Starting a Small Business Courses	35 (53.9%)	10 (47.6%)	42 (72.4%)
General Skills and New Job Readiness Courses	30 (46.2%)	11 (52.4%)	16 (27.6%)

Statistic	Value	Probability
Chi-Square	6.10	0.05
Cramer's V	0.21	

The null hypothesis of independence is rejected ($P=0.05$), with more implemental mindset participants choosing to entrepreneurial retraining (72.4%) than deliberative mindset participants (53.9%). We therefore have confirmed our hypothesis that recently unemployed workers primed with an implemental mindset are more likely to select entrepreneurship as a retraining course over a general retraining course than those primed with a deliberative mindset.

In addition to the statistical significance (p-values) of the impact of mindset priming on retraining choice, we also show Cramer's V to estimate the effect size. Whereas p-values are susceptible to sample size, effect size gives a stable indication of the expected relationship between variables (Farmus et al., 2023). To interpret the effect size of the chi-square test with 2 degrees of freedom we turn to a recent review of effect size reporting in academic journals in education and psychology (Sun, Pan, & Wang, 2010), a Cramer's V value less

than 0.07 indicates no effect, a value of less than 0.21 can be interpreted as a small effect, a value between 0.21 and 0.35 as a medium effect, and a value larger than 0.5 as a large effect.

We therefore conclude that mindset priming has a medium effect on retraining choice.

4.3. Hypothesis 2a: Attitude and Entrepreneurial Intention

From the Theory of Planned (TPB) discussed in the literature review, we have that attitude toward entrepreneurship positively influences entrepreneurial intentions (Ajzen, 1991; Fayolle et al., 2015; Krueger, 2017; Tornikoski & Maalaoui, 2019; Zaremohzzabieh et al., 2019). To confirm this within our population of recently unemployed workers, we stated Hypothesis 2a as: Attitude toward entrepreneurship (ATE) increases entrepreneurial intention (EI) in recently unemployed workers.

To test this hypothesis, the Spearman correlation, along with the test whether the correlation is different from 0, is shown in the table below:

Table 16: Entrepreneurial Intention and Attitude Toward Entrepreneurship Correlation

Spearman Correlation Coefficient (P-Value)	1	2
1. Entrepreneurial Intention (EI)		0.60 (<0.0001)
2. Attitude Toward Entrepreneurship (ATE)	0.60 (<0.0001)	

The null hypothesis of independence, or in other words a Spearman correlation of 0, is rejected ($P < 0.0001$). The positive Spearman coefficient of 0.60 confirm our hypothesis that within our population of recently unemployed workers ATE increases EI.

We utilised the Spearman coefficient and test, since the assumption of normality for attitude toward entrepreneurship were not met (Albers, 2017).

4.4. Hypothesis 2b: Attitude and Retraining Choice

To test our hypothesis that Attitude toward entrepreneurship (ATE) increases the probability of choosing entrepreneurship retraining courses over a general retraining course, the means per retraining group and the Wilcoxon Mann-Whitney and t-test is shown in the table below:

Table 17: Attitude and Retraining Choice

	Mean	Std. Dev.
Entrepreneurial and Starting a Small Business Courses	5.33	0.74
General Skills and New Job Readiness Courses	4.84	1.02

	Value	Probability
Wilcoxon Mann-Whitney test	3.51	0.004
T-test	3.17	0.002

The null hypothesis of no difference in median or means between the two groups is rejected ($P = 0.004$), with those choosing entrepreneurial retraining having a higher average ATE. We utilised the Wilcoxon Mann-Whitney test since the assumption of normality for ATE were not met (Albers, 2017). This confirms our hypothesis that ATE increases the probability of choosing entrepreneurship retraining courses over a general retraining course.

4.5. Hypothesis 2c: Entrepreneurial Intention and Retraining Choice

To test our hypothesis that participants choosing entrepreneurship retraining courses have higher entrepreneurial intentions (EI), we utilised the means per retraining group and the t-test.

Table 18: Entrepreneurial Intention and Retraining Choice

	Mean	Std. Dev.
Entrepreneurial and Starting a Small Business Courses	4.96	0.89
General Skills and New Job Readiness Courses	4.32	1.19

	Value	Probability
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T-test	3.49	0.007
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The null hypothesis of no difference in means between the two groups is rejected ($P = 0.007$), with those choosing entrepreneurial retraining having higher average EI. We utilised the t-test since the assumption of normality for ATE were met (Albers, 2017). Note however given the difference in variance, the Satterthwaite t-test (Albers, 2017) was performed. This confirms our hypothesis that participants choosing entrepreneurship retraining courses have higher EI.

4.6. Hypothesis 3: Mindset Priming, Attitude and Retraining Choice

In the literate review we discussed that in the pre-decisional action phase desirability factors are first weighed before crossing the Rubicon to the pre-actional action phase. Moreover, that in the pre-decisional phase and in the deliberative mindset, people are more open-minded (Fujita et al., 2007; L. Keller et al., 2020).

This led to Hypothesis 3, that attitude toward entrepreneurship's (ATE) effect on retraining choice (RC) is moderated by deliberative/implemental mindset priming (MP). Or in other words that retraining choice is influenced by not only priming mindset and attitude toward entrepreneurship (ATE), but also the interaction between these two variables (i.e. priming mindset is moderated by attitude toward entrepreneurship).

To test this hypothesis, we utilise logistic regression. Logistic regression is appropriate for a dependent dichotomous variable such as retraining choice, and several categorical or continuous independent (or explanatory) variables such as MP and ATE, since it is not sensitive toward normality assumptions (Peng et al., 2002).

Table 19: Mindset Priming, Attitude and Retraining Choice Logistic Regression

	Global Null Hypothesis (Beta = 0)	
	Chi-Square	Probability
Likelihood Ratio	23.65	0.000
Wald	15.52	0.008

Effect	Wald	
	Chi-Square	Probability
ATE	9.16	0.002
MP (Implemental)	3.82	0.148
ATE x MP (Implemental)	5.03	0.081

Model Fit	Value
AUC-ROC	0.726

The global Wald chi-square is 15.52 ($p=0.008$) and likelihood ratio test is 23.65 ($p=0.0003$), in other words we reject the null hypothesis that the regression coefficients is zero. The Wald test and the likelihood ratio test are commonly used in logistic regression. (Forthofer, Lee, & Hernandez, 2007; Koengkan, Fuinhas, & Marques, 2019). Furthermore, we find that the model has good discriminatory value with an AUC-ROC of 0.726. AUC-ROC (area under the curve of the receiver operator curve) measures the performance of a model, and a value greater than 0.7 is seen as good fit (Hosmer & Lemeshow, 2013).

We however note that not all effects are significant, notably mindset priming (MP) with a chi-square of 3.82 (0.148). When interaction effects are significant, and some of the main effects are not, this indicates that there is a cross-over interaction.

The interaction between ATE and MP can be seen in the figure below. If attitude toward entrepreneurship is high, then in the implemental mindset the probability of choosing the entrepreneurial retraining course is higher than that those in the deliberative mindset. For lower attitude toward entrepreneurship, the relationship is reversed, in the deliberative mindset, the probability of choosing the entrepreneurial retraining course is higher than that those in the implemental mindset. We also see that the probability of choosing

entrepreneurial training in the deliberative mindset is lower than the control group when attitude toward entrepreneurship is low, but that this reverses when attitude is high.

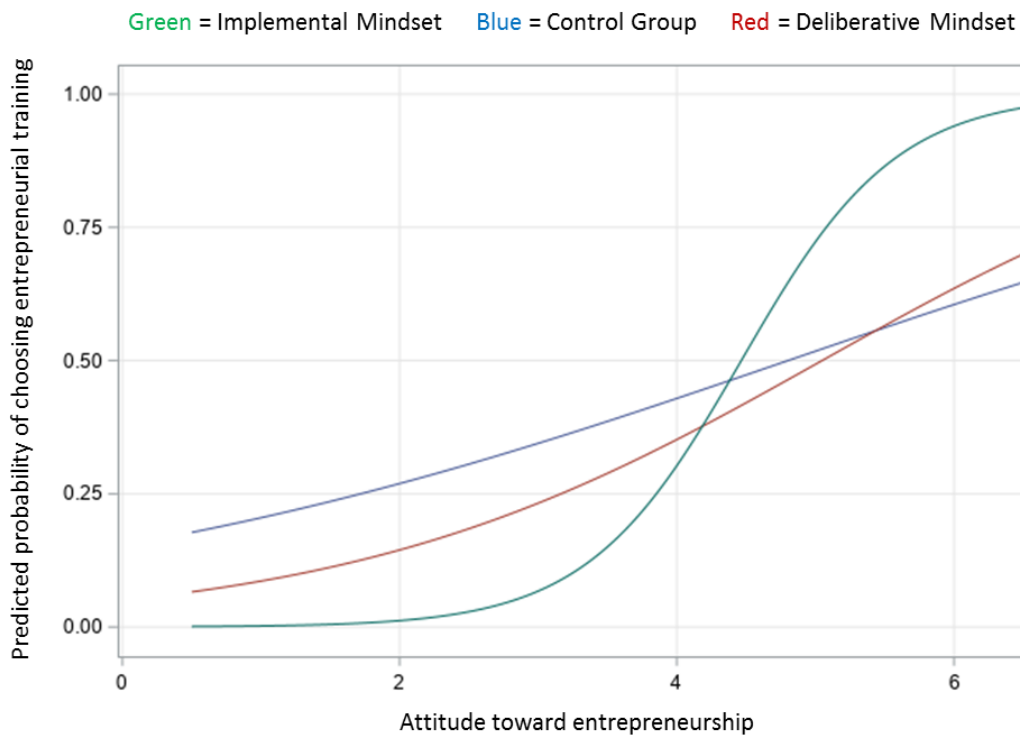


Figure 8: Predicted Probability of Choosing Entrepreneurial Training

To further explore this relationship, and confirm the effect of mindset priming given different attitude toward entrepreneurship levels, we group respondents in attitude toward entrepreneurship levels using the 25th, 50th (median), and 75th percentiles.

Table 20: Low, Medium, High Attitude Toward Entrepreneurship Contingency Tables

Low Attitude Toward Entrepreneurship

Count (and column %)	Abstract / Deliberative Mindset	Control	Concrete / Implemental Mindset
Entrepreneurial and Starting a Small Business Courses	7 (53.8%)	2 (28.6%)	5 (29.4%)
General Skills and New Job Readiness Courses	6 (46.2%)	5 (71.4%)	12 (70.6%)

Statistic	Value	Probability
Fisher's exact test (Freeman-Halton)	0.0365	0.3749
Cramer's V	0.24	

Medium Attitude Toward Entrepreneurship

Count (and column %)	Abstract / Deliberative Mindset	Control	Concrete / Implemental Mindset
Entrepreneurial and Starting a Small Business Courses	2 (16.7%)	4 (57.1%)	12 (92.3%)
General Skills and New Job Readiness Courses	10 (83.3%)	3 (42.9%)	1 (7.7%)

Statistic	Value	Probability
Fisher's exact test (Freeman-Halton)	<.0001	0.0004
Cramer's V	0.67	

High Attitude Toward Entrepreneurship

Count (and column %)	Abstract / Deliberative Mindset	Control	Concrete / Implemental Mindset
Entrepreneurial and Starting a Small Business Courses	26 (65.0%)	4 (57.1%)	25 (89.3%)
General Skills and New Job Readiness Courses	14 (35.0%)	3 (42.9%)	3 (10.7%)

Statistic	Value	Probability
Fisher's exact test (Freeman-Halton)	0.0033	0.0371
Cramer's V	0.28	

We can see from Cramer's V, that mindset priming has a large effect (0.67) when attitude towards entrepreneurship is medium (between 4.75 and 5.25), and that it has a medium effect when attitude toward entrepreneurship is low or high (0.24 and 0.28 respectively). We note despite the medium effect size (0.24) that the Freeman-Halton tests is not significant when ATE is low given the low sample size.

The Fisher's exact test for a 2 x 3 contingency tables (Freeman-Halton test) is preferable over the Chi-Square estimated tests when sample sizes are small (Albers, 2017; Stockemer, 2018).

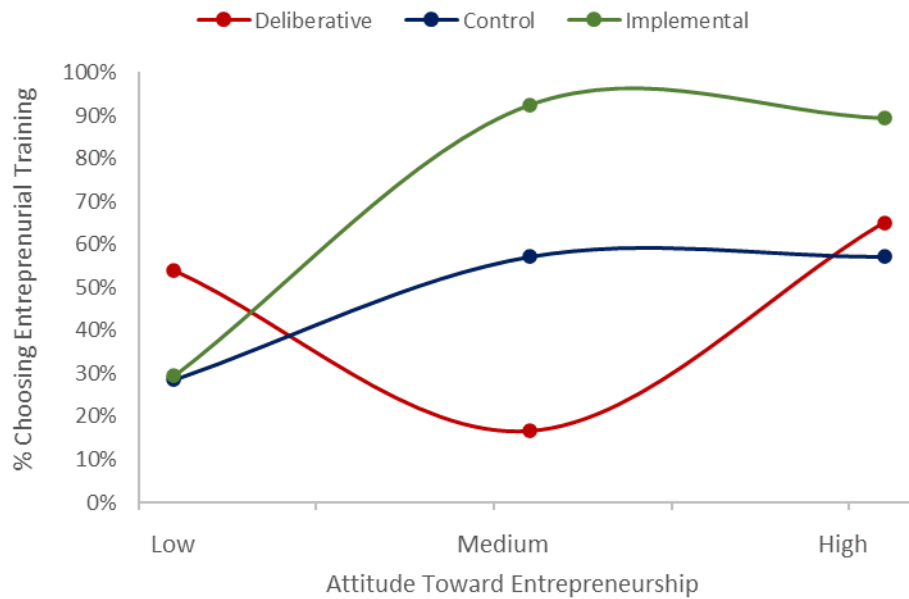


Figure 9: % Choosing Entrepreneurial Training by Mindset and Attitude Groups

This confirms our hypothesis that retraining choice is influenced by not only priming mindset and attitude toward entrepreneurship (ATE), but also the interaction between these two variables (i.e. priming mindset is moderated by attitude toward entrepreneurship).

4.7. Hypothesis 4: Mindset Priming and Construal Level Disposition

Mindset priming has been shown in previous studies to influence construal level disposition (CLD) measures (Burgoon et al., 2013; Fujita & Roberts, 2010; Fujita et al., 2006; Malkoc et al., 2010). However, recent concerns about the BIF instrument's ability to measure changes in situational mindsets leaves us uncertain whether deliberative / implemental mindset priming (MP) task will impact CLD in the current study's population.

This led us to the hypothesis that deliberative/implemental mindset priming (MP) impacts construal level disposition (CLD) in recently unemployed workers. To test this hypothesis, we utilised the . The mean and standard deviation of CLD per priming group is shown in the table below.

Table 21: Mindset Priming and Construal Level Disposition

	Mean	Std. Dev.
Abstract / Deliberative Mindset	6.26	2.96
Control Group	6.82	2.80
Concrete / Implemental Mindset	6.74	2.06

	Value	Probability
Kruskal-Wallis Test	2.32	0.31

The null hypothesis of no difference in means between the two groups cannot be rejected ($P = 0.31$). We therefore must reject our hypothesis that deliberative/implemental mindset priming impacts construal level disposition in recently unemployed workers.

4.8. Hypothesis 5: Construal Level Disposition and Entrepreneurial Intention

We also have from chapter 2 that CLD influences entrepreneurial intention (Bazzy et al., 2019), although we as highlighted by Donaldson et al. (2021) we do not know whether this holds across the different phases of entrepreneurship. Or in other words, entrepreneurship attitudes, intentions and behaviour is a process, and any study of intentions should include a temporal lens.

This led us to the hypothesis that CLD increases entrepreneurial intention (EI) in recently unemployed workers. To test this hypothesis, we utilised a t-test. The mean and standard deviation of CLD per priming group is shown in the table below.

To test this hypothesis, the Pearson correlation, along with the test whether the correlation is different from 0, is shown in the table below:

Table 22: Construal Level Disposition and Entrepreneurial Intention Correlation

Pearson Correlation Coefficient (P-Value)	1	2
1. Entrepreneurial Intention (EI)		0.022 (0.79)
2. Construal Level Disposition (CLD)	0.022 (0.79)	

The null hypothesis of independence, or in other words a Pearson correlation of 0, cannot be rejected ($P=0.79$). We can utilise the Pearson coefficient and test, since the assumption of normality was met for both entrepreneurial intention and construal level disposition (Albers, 2017).

We therefore must reject our hypothesis that CLD is correlated to entrepreneurial intention (EI) in recently unemployed workers.

4.9. Demographic Variables (Post-Hoc Analysis)

As discussed in our research design, we tested the demographic profile (gender, age, income, educational level) of participants as control variables.

We found that the only significant differences within CLD was highest education level, and for ATE and EI gender. The differences are described below.

Construal level disposition (CLD) was significantly higher for those with tertiary education, as seen in the table below.

Table 23: Education and Construal Level Disposition Post Hoc Test

	Mean	Std. Dev.
Grade 12 or less	6.13	2.96
More than Grade 12	7.23	2.51

	Value	Probability
T-test	-2.24	0.027

Entrepreneurial intention (EI) was significantly higher for males, as seen in the table below.

Table 24: Gender and Entrepreneurial Intention Post Hoc Test

	Mean	Std. Dev.
Female	4.45	1.23
Male	4.89	0.94

	Value	Probability
T-test	-2.22	0.029

Attitude toward entrepreneurship (ATE) was significantly higher for males, as seen in the table below.

Table 25: Gender and Attitude Toward Entrepreneurship Post Hoc Test

	Mean	Std. Dev.
Female	4.87	1.14
Male	5.32	0.66

	Value	Probability
Wilcoxon Mann-Whitney test	-2.03	0.042

Note we utilised the Wilcoxon Mann-Whitney test since the assumption of normality for ATE were not met (Albers, 2017).

4.10. Correlations

To illustrate the connection between CLD, ATE, EI, MP, and RC within the hypothesis diagram discussed in chapter 2, we calculated the Spearman correlations between these variables.

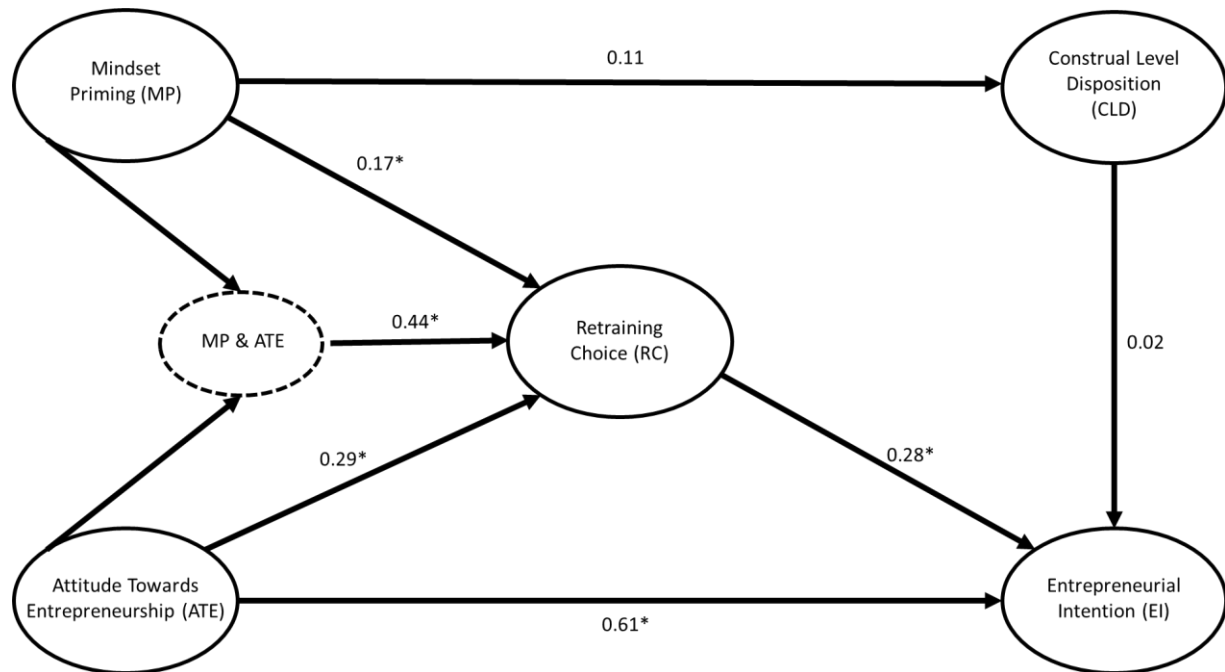


Figure 10:Correlations

**Indicates statistically significant relationships.*

Lastly, as described in this research study's sampling design in chapter 3, we conducted this study in two phases, from two groups of unemployed workers. We tested whether a respondent's sample phase had any interaction with any of the CLD, ATE, EI, MP and RC relationships described above and found no significant interactions.

5. DISCUSSION

5.1. Overview

The research presented focussed on how to improve take-up of entrepreneurial education amongst the recently unemployed.

Policy makers and scholars agree that entrepreneurship promotion is an important driver for any country wishing to tackle unemployment (Lukes et al., 2016; Si et al., 2020; Sutter et al., 2019; United Nations, 2015, 2023), and in chapter 2 we showed that there is clear evidence from entrepreneurship promotion programs geared towards improving the financial means of participants is successful (Behrenz et al., 2016; Caliendo & Künn, 2011; Lukes et al., 2016). Moreover, we showed that after controlling for entrepreneurship education, that necessity entrepreneurship can be as efficient in generating economic growth as high growth opportunity entrepreneurship (Block & Sandner, 2009). In chapter 3 we discussed the setup of a random control experiment on 144 recently unemployed individuals to provide access to entrepreneurship education.

In chapter 2 we also discussed that unemployed individuals, given increased risk aversion, are not starting businesses when they clearly see an opportunity, and therefore are also unlikely to take up entrepreneurship retraining courses without further intervention to address the increased risk aversion. After discussing mindset theory of action phases in chapter 2, we showed that an implemental mindset improves risk aversion, and a deliberative mindset improves open-mindedness. We therefore posited that unemployed individuals were more likely to take up entrepreneurship education if primed when an implemental mindset.

We discussed the method of priming different mindsets in a random control experiment in chapter 3. We experimentally manipulated the construal level of a 144 recently unemployed workers using a well-known priming technique, and then gave a choice of entrepreneurial or general / job readiness training. Participants also completed measures of entrepreneurial intention, attitude toward entrepreneurship, and construal level disposition.

In chapter 4 the results of the random control experiment were presented, showing that there is evidence that the mindset priming was effective, and that this research study's results were

mostly supportive of our theoretical assumptions (five of the seven hypotheses we posited in chapter 2 were confirmed).

In this chapter we discuss these results in relation to our theoretical assumptions, unpacking it in three sections, mindsets, retraining choice and entrepreneurial intentions.

5.2. Mindsets

Mindsets are cognitive frames that impact perceptions, emotions, information processing, and behaviours and are key in explaining the underlying mechanisms of behaviours in order to recommend how best to achieve goals. Cognitive frames are malleable, and as introduced in chapter 2 and 3, can be primed or induced, moreover mindsets carry over to new independent tasks.

The theoretical framework used to study mindsets in the current research study is mindset theory of action phases, specifically the pre-decisional and pre-actional phases of an action, which are associated with the deliberative and implemental mindset respectively. The current research study experiment was conducted with two primes, assigning participants at random to each prime and to a third control group. Participants in the deliberative mindset priming were asked to consider why they would do a specific activity, and participants in the implemental mindset priming are asked to consider how they would do the same activity. The why and how questions are structured further by asking consecutive four follow up why and how questions using the previous answer. In other words, in the abstract mindset priming participants were asked to progressively think abstractly about an activity, whereas in the concrete mindset priming participants were asked to progressively think concretely about an activity. In addition, after this task participants are asked to provide three reasons why they would do the activity or three ways how to do the activity.

The results of the current research study show that the mindset priming was successful, with two independent judges reading the responses to the separate life goals / methods follow-up question, and coding the responses as deliberative, implemental or neither. Of the 123 participants that received a mindset prime (in the first two groups), 91.9% of responses were congruent with the mindset prime. This result is similar than found in several other studies (Carrera et al., 2019, 2018; Freitas et al., 2004; Herter et al., 2022), and confirms that the well

known priming technique is effective a group of recently unemployed individuals from a wide range of cultural, language, income and educational backgrounds in South Africa.

5.2.1. Mindsets and Construal Level Disposition

The literature is mixed on whether mindset induction impacts construal level disposition as measured by the Behaviour Identification Form. Several studies have found a significant correlation between situationally induced mindset (implemental/concrete or decisional/abstract) and construal level disposition (Burgoon et al., 2013; Fujita & Roberts, 2010; Fujita et al., 2006; Malkoc et al., 2010).

However, more recently there have been several studies showing that this relationship does not hold on larger samples. These studies posit that the Behaviour Identification Form is more likely to measure stable individual tendency (or trait) than able to capture situational variations in abstraction (Benschop et al., 2021; Nguyen et al., 2023; Trautmann, 2019), which is in line with the original development of the instrument (Vallacher & Wegner, 1989).

Recent literature has also highlighted the need to update the Behaviour Identification Form to remove items that are no longer salient in today's society. The results of the current research study confirms this, as the confirmatory factor analysis on the 25 item Behaviour Identification Form showed poor fit, with a GFI of 0.73. After removing items that had lower factor loadings the remaining 9 item Behaviour Identification Form displayed good internal validity.

The items removed also had some face validity, as discussed by Nguyen et al. (2023) not all populations would be familiar with all of the actions, and would be difficult for some participants to image doing, e.g. item 3, joining the army, and item 6, chopping down a tree. The items removed in the current research study is shown below, and items 3, 4, 5, 6, 7, 11, 14, 15, 22, 23 seem mainly to have fallen out due to this saliency condition. (Note that South African context is also important for item 22, travelling by car, since most South African's travel via group transport.)

The second reason Nguyen et al. (2023) suggests for considering removing items, is items that could be linked to different goals for different people, and so would not be goal

congruent, for example reading might be linked to a gaining knowledge goal for some, but for others could be linked to a “relaxing and unwinding” goal. Items 1, 2, 13, 19, 21, 24 removed in the current study seem to be linked to this reason. Item 13, voting, could be either related to a higher-level goal influencing the election or ensuring the fight to enjoy this basic human right is not wasted. Twenty-five years ago most of the people in South Africa were not allowed to vote. With many arrested, tortured and killed for demanding this right, many people still vote simply to show that the sacrifice was not wasted.

Table 26: Items removed from the Behaviour Identification Form in the current research study

	A.	B.
1-Making a list	Getting Organized	Writing things down
2-Reading	Following lines of print	Gaining knowledge
3-Joining the Army	Helping the nation’s defence	Signing up
4-Washing Clothes	Removing odours from clothes	Putting clothes into the machine
5-Picking an Apple	Getting something to eat	Pulling an apple off a branch
6-Chopping down a tree	Wielding an axe	Getting firewood
7-Measuring a room for carpeting	Getting ready to remodel	Using a measuring tape
11-Caring for houseplants	Watering plants	Making the room look nice
13-Voting	Influencing the election	Marking a voting slip
14-Climbing a tree	Getting a good view	Holding on to branches
15-Filling out a personality test	Answering questions	Revealing what you’re like
19-Resisting temptation	Saying “no”	Showing moral courage

	A.	B.
21-Growing a garden	Planting seeds	Getting fresh vegetables
22-Traveling by car	Following a map	Seeing countryside
23-Having a cavity filled	Protecting your teeth	Going to the dentist
24-Talking to a child	Teaching a child something	Using simple words

The remaining items in the Behaviour Identification Form, seem to not fall prey to either the above exclusion reasons.

Table 27: Items remaining in the Behaviour Identification Form in the current research study

	A.	B.
8-Cleaning the house	Showing one's cleanliness	Vacuuming the floor
9-Painting a room	Applying brush strokes	Making the room look fresh
10-Paying the rent	Maintaining a place to live	Giving the property owner money
12-Locking a door	Putting a key in the lock	Securing the house
16-Toothbrushing	Preventing tooth decay	Moving a brush around in one's mouth
17-Taking a test	Answering questions	Showing one's knowledge
18-Greeting someone	Saying hello	Showing friendliness
20-Eating	Getting nutrition	Chewing and swallowing
25Pushing a doorbell	Moving a finger	Seeing if someone's home

To test the hypothesis of mindset priming impacting construal level disposition, a Kruskal-Wallis test was utilised, and the construal level disposition, as measured by the reduced, valid and reliable 9-item Behaviour Identification Form of the three construal groups compared. The mean construal level disposition for the abstract/deliberative primed group was 6.26, for the concrete / implemental group it was 6.74, and for the control group it was 6.82. With standard deviations above 2, the Kruskal-Wallis tests shows that there is no significant difference between the three primed groups, and we therefore conclude that the mindset priming did not have an impact on construal level disposition in the current research study.

The effect of the mindset priming might be too subtle, or more likely as discussed in recent studies (Benschop et al., 2021; Nguyen et al., 2023; Trautmann, 2019), the Behaviour Identification Form is not suitable to detect differences in situational mindset priming, but that it rather measures a stable individual trait. This is supported by the original creators of the Behaviour Identification Form, Vallacher & Wegner (1989), which proposes that individuals prefer some descriptions across different situations or actional phases, and that this is due to a personality trait.

5.2.2. Educational Level and Construal Level Disposition

To ensure well represented treatment and control groups, several demographic variables (gender, age, income, highest level of education) were obtained in the current studies survey. Of the four demographic variables, only highest education level showed any statistical significant interaction with construal level disposition, as measured by the 9 item Behaviour Identification Form.

Of the 144 respondents, a 138 were comfortable to share demographic information, 86 had a highest educational level of Grade 12 (secondary school leaving year) or lower, and the other 52 participants had some tertiary education. Those with less schooling had an average score of 6.13 on the 9 item Behaviour Identification Form, and those with some tertiary education had an average score of 7.23. The t-test to test for differences in means had a p value of 0.027, showing that the abstraction thinking tendency of the two groups were significantly different, with those with more schooling significantly having higher abstract thinking tendency.

This result is somewhat related to a study of abstract thinking tendency (as measured by the Behaviour Identification Form) of college students with different majors (Bishop, Thomas, & Peper, 2000). Students with majors that are linked to more procedural education like mathematics and accounting had significantly lower scores than those students with majors that are linked to more holistic education like nursing and music.

Those with a highest educational level of Grade 12 or lower would have received more procedural education and is more likely to be in procedural occupations. Whereas those with any tertiary education would be more likely to have received holistic wider thinking education and would be more likely to be in occupations that require non-procedural thinking.

5.3. Retraining Choice

After mindset priming, participants were given a choice between general skills or entrepreneurial skills retraining courses. The entrepreneurial courses were chosen to cover the broad aims of entrepreneurial education, namely increasing opportunity recognition, strategic marketing and business management skills (Anosike, 2019; Martin et al., 2013; Marvel et al., 2016). The training courses were expected to take 45 hours, or roughly 1 to 2 months (depending on time spent per day).

The retraining choice results of the control group, who received no priming, supports the premise that even in countries where formal employment opportunities are scarce, and where unemployed individuals see entrepreneurial opportunities in their local area, the majority will not choose an entrepreneurial career. In the 2023 global entrepreneurship monitor survey, more than half of the public in thirteen countries who saw opportunities in their local area, including India and Canada, indicated they would not start a business. In South Africa, 61.3% saw opportunities in their local area and the fear of failure rate was 59.5%. Recent OCED research goes further by showing that only 3% of job seeking unemployed seeking unemployed individuals said that they would prefer to return to work as self-employed (OECD/The European Commission, 2023).

In the current research study, the control group had a relatively positive personal attitude toward entrepreneurship with a mean of 4.87 (6-point scale), and 66.6% of the control group

having a personal average attitude toward entrepreneurship above 4.75 (mostly agreeing or agreeing strongly with positive entrepreneurship career attitude statements). However, 52.4% of the control group chose general skills retraining, designed to help participants be more marketable for a new job (e.g. personal branding and work readiness), over entrepreneurial retraining courses. Although not directly equivalent, since the current research study focused on retraining choice of unemployed individuals, risk aversion in the current research study aligns to recent entrepreneurship literature.

In addition, the current research study's results shows that even in a lower risk choice environment, such as subsidised entrepreneurial retraining, and in a country where formal employment opportunities are scarce, unemployed individuals prefer to go after a less certain option of stable future formal employment, rather than a more certain option of ambiguous stability future self-employment. This suggests that ambiguity aversion of unemployed individuals is similar that those of the poor, i.e. it aligns to the poverty trap, by going after certainty, and not investing in more ambiguous, but higher upside options these individuals choose to survive rather than thrive (Chivers, 2017; Li, 2017; Visser et al., 2020).

5.3.1. Mindsets and Retraining Choice

To enable unemployed individuals to attempt to escape the poverty trap, we looked towards mindset theory of action phases (MAP), and specifically the implemental mindset which as been shown to less risk averse.

The implemental mindset is central in two of the four action phases in MAP, namely the pre-actional and actional phase. In this research study we focussed on the pre-actional phase, i.e. after a decision is made, but before action is taken. This separate volitional state brings willpower into the equation, without which there is no action. During the pre-actional phase the aim is to plan by asking how questions. An individual in this state focuses on getting the task done, and therefore tend to ignore information not supportive of obtaining the goal, in other words individuals in an implemental mindset tend to be more optimistic about the feasibility of the task (L. Keller & Gollwitzer, 2017).

The deliberative mindset in contrasts, which is central in the pre-decisional action phase where desirability and feasibility elements of different options are weighted, tend to take

more information into account and weight the information more cautiously, given that there has not been any decisional “sunk cost” yet.

This difference in processing information is the reasoning behind the risk averse behaviour seen in individuals in the deliberative mindset in contrast to the risk-taking behaviour seen in the implemental mindset.

Mindsets has been shown to carry over to new independent tasks (Freitas et al., 2004; L. Keller & Gollwitzer, 2017; Taylor & Gollwitzer, 1995). As discussed in chapter 2, the congruence of these mindsets has been tested in several studies, for example in a task to complete a fairy tale, those in a deliberative mindset (who were asked to think about a personal problem where they had to make a decision to change) created more deliberative story lines than those in an implemental mindset (asked to plan how to achieve a personal goal) (Gollwitzer et al., 1990).

With mindsets shown to carry over from tasks, we hypothesized that recently unemployed workers primed with an implemental mindset are more likely to select entrepreneurship as a retraining course over a general retraining course than those primed with a deliberative mindset.

Since we were comfortable that the mindset priming was successful in invoking an implemental and deliberative mindset (with 91.9% congruence) we tested this hypothesis via a contingency table chi-square test in chapter 4. The results showed that in contrast with those in the control group, which chose entrepreneurship retraining 47.6% of the time, those in an implemental mindset chose entrepreneurship retraining 72.4% of the time, a significant lift (p-value 0.05).

This significant lift in entrepreneurial retraining take-up seen in those in an implemental mindset is consistent with literature in that implemental mindsets have been shown be more optimistic about a task, and to reduce risk aversion. Preference for entrepreneurship has been linked to lower risk aversion. Specifically, unemployed jobseekers who chose to start a business were shown to be less risk averse (Wagner & Sternberg, 2004).

With 34.1 million “missing” entrepreneurs in OECD countries, defined here as those who could be potential entrepreneurs but has some motivational, volitional or real barrier to overcome (OECD/The European Commission, 2023), and with high global unemployment rates, any lift to governmental and non-governmental efforts is sorely needed.

With mindset priming showing a medium effect size (Cramer’s V 0.21) on entrepreneurial retraining uptake, the result points to a way to improve entrepreneurship promotion interventions. We therefore propose that the take-up of entrepreneurship training programs aimed at the unemployed can be increased by inducing an implemental mindset. Specifically, using a marketing campaign focused on implemental or concrete (rational how) elements.

5.3.2. Attitudes and Retraining Choice

From the Theory of Planned Behaviour (TPB), we have that attitude toward entrepreneurship positively influences entrepreneurial intentions (Ajzen, 1991; Fayolle et al., 2015; Krueger, 2017; Tornikoski & Maalaoui, 2019; Zaremohzzabieh et al., 2019). We also have that entrepreneurial education (via entrepreneurial self-efficacy) influences entrepreneurial intentions (Ahmed et al., 2020; Cui & Bell, 2022; Schlaegel & Koenig, 2014), moreover, we have that attitude toward entrepreneurship acts as a mediator between self-efficacy and entrepreneurial intentions (Arshad, 2019).

This led us to propose that a positive attitude toward entrepreneurship will increase the probability of choosing entrepreneurship retraining courses.

Attitude toward entrepreneurship defined here as the how positive or negative an individual values or desires an entrepreneurial career. Using a five item attitude toward entrepreneurship measure developed by Liñán and Chen (2009), we saw from the confirmatory factor analysis results in chapter 3 that one item had a low factor loading, and were consequently excluded from the measure in the current research study. The item excluded was “being an entrepreneur implies more advantages than disadvantages to me”. Whereas the other four items, “a career as entrepreneur is attractive for me”, “if I had the opportunity and resources, I’d like to start a firm”, “I would be very happy to be an entrepreneur”, and “Among various options, I would rather be an entrepreneur”, directly

pertained to the desirability of entrepreneurship for the individual, the first item could be construed as more of a feasibility judgement, involving self-efficacy considerations.

The four-item attitude toward entrepreneurship measure showed good discriminatory validity (average variance extract = 0.95, vs maximum squared factor correlation = 0.59) and internal reliability (Cronbach alpha of 0.88). Therefore, we proceeded in chapter four to test our hypothesis that attitude toward entrepreneurship (ATE) increases the probability of choosing entrepreneurship retraining courses over a general retraining course via a Wilcoxon Mann-Whitney test. The results show a significant difference between the two retraining groups (p-value = 0.004). The mean ATE of those choosing entrepreneurial retraining was 5.33, and the mean ATE of those choosing general skills retraining was 4.84. Moreover, the Spearman correlation between ATE and retaining choice was 0.29, indicating a medium effect size.

This finding is supportive of recent literature, in that attitude towards entrepreneurship interacts with self-efficacy. Individuals for who entrepreneurship is desirable, are likely to seek opportunities to learn how to do well in entrepreneurship and therefore improve self-efficacy.

We therefore propose that the take-up of entrepreneurship training programs aimed at the unemployed in can be increased by improving the attitudes toward entrepreneurship. Health and information security appeal literature points to a way to improve the efficacy of such campaigns. When desirability is not in question, for example no one wants to have their identity stolen, that concrete based messages are more effective (Schuetz et al., 2020). In contrast, when dealing with outcomes where desirability has not been established yet, for example to consume alcohol less, abstract (emotional) appeals are more effective (Herter et al., 2022).

Specifically, we propose that take-up of entrepreneurship programs can therefore be improved using a marketing campaign focussed on deliberative or abstract (emotional why) elements.

5.3.3. Mindsets, Attitudes and Retraining Choice

In the current research study, we have that the mindset priming was successful in inducing a deliberative and implemental state. We also have contradictory proposals thus far, namely:

- take-up of entrepreneurship programs can be improved using a marketing campaign focused on implemental or concrete (rational how) elements, and
- take-up of entrepreneurship programs can be improved using a marketing campaign focussed on desirability or abstract (emotional why) elements.

To resolve this contradiction, we turn to the interaction between mindset, attitude and retraining choice. In the chapter 2 we discussed that in the pre-decisional action phase (deliberative mindset) desirability factors are first weighed before crossing the Rubicon to the pre-actional action phase, and that in the pre-decisional phase (deliberative mindset), people are more open-minded (Fujita et al., 2007; L. Keller et al., 2020), and willing to review the fallibility of own beliefs and attitudes.

This led to the hypothesis, that attitude toward entrepreneurship's (ATE) effect on retraining choice (RC) is moderated by deliberative/implemental mindset priming (MP). Or in other words that retraining choice is influenced by not only priming mindset and attitude toward entrepreneurship (ATE), but also the interaction between these two variables (i.e. priming mindset is moderated by attitude toward entrepreneurship). In chapter four we presented the logistic regression used to test the hypothesis, and also further explored the relationship between these three variables using three 2 x 3 contingency tables.

The logistic regression to predict retraining choice (general or entrepreneurial), with explanatory variables, mindset (deliberative, control or implemental), attitude toward entrepreneurship, and the interaction between these two variables, had a global Wald chi-square is 15.52 ($p=0.008$) and likelihood ratio test is 23.65 ($p=0.0003$), in other words we reject the null hypothesis that the regression coefficients is zero. We also found that the model has good discriminatory value with an AUC-ROC of 0.726. AUC-ROC (area under the curve of the receiver operator curve) measures the performance of a model, and a value greater than 0.7 is seen as good fit (Hosmer & Lemeshow, 2013). Not all of the individual maximum likelihood regression coefficient estimates were significantly different from zero,

pointing to the presence of a cross-over interactive effect between mindset and attitude toward entrepreneurship.

By plotting the predicted probability of choosing entrepreneurial training against the attitude toward entrepreneurship for the three mindset conditions (implemental, control and deliberative) separately, we saw that:

- if attitude toward entrepreneurship is **high**, then in the implemental mindset the probability of choosing the entrepreneurial retraining course is **higher** than that those in the control group and deliberative mindset conditions,
- if attitude toward entrepreneurship is **low**, then in the implemental mindset the probability of choosing the entrepreneurial retraining course is **lower** than those in the control group and deliberative mindset conditions,
- if attitude toward entrepreneurship is **high**, then in the deliberative mindset the probability of choosing the entrepreneurial retraining course is **higher** than that those in the control group,
- if attitude toward entrepreneurship is **low**, then in the deliberative mindset the probability of choosing the entrepreneurial retraining course is **lower** than those in the control group.

The above logistic regression interaction was confirmed in three contingency tables, where attitude toward entrepreneurship was grouped into low, medium and high attitude using the 25th, 50th (median), and 75th percentiles of the overall sample's attitude toward entrepreneurship score. We found that:

- if attitude toward entrepreneurship is **high**, 89% of those in the implemental mindset chose entrepreneurial retraining, compared to 57% in the control group and 65% in the deliberative mindset choosing entrepreneurial training. The effect size is medium (Cramer's $V = 0.28$)
- if attitude toward entrepreneurship is **medium**, 92% of those in the implemental mindset chose entrepreneurial retraining, compared to 57% in the control group and 17% in the deliberative mindset choosing entrepreneurial training. The effect size is large (Cramer's $V = 0.67$)
- if attitude toward entrepreneurship is **low**, 29% of those in the implemental mindset chose entrepreneurial retraining, compared to 29% in the control group and 54% in

the deliberative mindset choosing entrepreneurial training. The effect size is medium (Cramer's $V = 0.24$)

11 Starting with the results for those individuals with low attitudes toward entrepreneurship, that is those who had an average score below 4.75, in other words who mostly chose neutral or disagree answers about positive entrepreneurship career attitude statements, we note that the deliberative mindset (54%) almost doubles take-up of entrepreneurial retraining compared to the other groups (29%). This result supports our theoretical hypothesis, given the open-mindedness associated with the deliberative mindset, i.e. being aware of the fallibility of your own beliefs and attitudes, a higher percentage of individuals with a low desire to pursue an entrepreneurial career will choose entrepreneurial retraining.

This result aligns to other open-mindedness studies, such as Fujita et al.'s (2007) memory research, and Winterich & Nenkov's (2015) savings research. Notably, Winterich & Nenkov were able to more than double savings (\$133.82 vs \$62.44) by inducing a deliberative mindset. Specifically they show that those in a deliberative mindset is more open-minded towards the value judgement of others, i.e. my value judgement (desirability of an action) might be incorrect.

We also agree with Winterich & Nenkov's (2015) conclusion to utilise adverts that induces a deliberative mindset to get people to reconsider their value judgements. In other words, we have that our earlier proposal that take-up of entrepreneurship programs can be improved using a marketing campaign focussed on desirability, deliberative or abstract (emotional why) elements holds when attitudes or desirability is low.

We didn't expect the implemental mindset to be significantly different from the control group when attitudes or desirability factors were low, since even though the implemental mindset is more optimistic about feasibility, if there is not enough goal commitment (via desirability), implementation intentions will benefit goal realisation (Seo, Patall, Henderson, & Steingut, 2018).

Moving on to the results for those individuals with high attitudes toward entrepreneurship, that is those who had an average score below between above 5.25, in other words who mostly

chose to agree or strongly agree to positive entrepreneurship career attitude statements, we note that the implemental mindset provides a significant lift above both deliberative mindset participants and the control group.

We didn't expect the deliberative mindset to be significantly different from the control group when attitudes or desirability factors were very high, since even though the deliberative mindset by its very nature re-evaluates options, and therefore is associated with a more cautious approach to risk taking, and reducing feasibility, having very high desirability ensured that the outcome of the revaluation was not affected (i.e. overriding feasibility concerns).

High feasibility has been shown to override desirability concerns and vice versa (Bazzy et al., 2019; Fitzsimmons & Douglas, 2011). Using a large sample of potential entrepreneurs across Australia, China, India and Thailand, Fitzsimmons & Douglas (2011) showed that there is a negative interaction between desirability and feasibility perceptions. That is, when feasibility perceptions are low, but desirability perceptions are high, that the high desirability counteracts the negative feasibility in forming entrepreneurial intentions. Similarly, when desirability perceptions are low, but feasibility perceptions are high, that the high feasibility counteracts the negative desirability in forming entrepreneurial intentions.

We did expect that those in an implemental mindset would choose to take up the entrepreneurship training more, with the literature showing not only that those in a deliberative mindset is more risk averse, but also that those in the implemental being more optimistic about risk.

Using the balloon analog risk task (BART), Keller & Gollwitzer (2017) showed that those in a deliberative mindset showed less risk taking behaviour. The BART is a decision-making task where individuals are shown a balloon and a balloon pump. For each click of the pump the participant earns money, but loses the money if the balloon bursts. In Keller & Gollwitzer's experiment those in a deliberative mindset pumped the balloon fewer times and let fewer balloons burst. In the same research paper, Keller & Gollwitzer also used an illusory optimism survey, to show those in an implemental mindset tend to be more optimistic about risks. Participants were asked the likelihood that a person of their gender and age would encounter certain events, and ten were asked the how likely they were to

encounter the same events. They did this for four controllable events (committing a felony, contracting HIV, developing a drinking problem, becoming obese) and four uncontrollable events (losing a partner to an early death, being a victim of a violent crime, contracting the flu, being a victim of eyewitness of a terrorist attack). Those participants in the implemental mindset conditioning group significantly thought they were less likely to experience a negative controllable event than those in the deliberative mindset conditioning group and in the control group. No significant differences were found with uncontrollable events.

This optimism about risks in the implemental mindset would therefore have overridden feasibility concerns, ensuring that entrepreneurial retraining was chosen (89%). In other words, we have that our earlier proposal that take-up of entrepreneurship programs can be improved using a marketing campaign focussed on implemental or concrete (rational how) elements holds when attitudes or desirability is high.

Moving on to the results for those individuals with medium attitudes toward entrepreneurship, that is those who had an average score below between 4.75 and 5.25, in other words who mostly chose neutral or agree answers to positive entrepreneurship career attitude statements, we note that the implemental mindset participants (92%) selected entrepreneurial retraining significantly more times than the control group (57%). Interestingly we also see that the deliberative mindset (17%) more than halves the take-up of entrepreneurial retraining compared to the control group (57%).

Starting with the impact of the implemental mindset, we note that the difference between the implemental and control groups for those with a medium attitude toward entrepreneurship is similar to that of those with a high attitude toward entrepreneurship.

The implemental mindset focuses on getting the task done, and therefore tend to ignore information not supportive of obtaining the goal. As discussed in chapter 2, those in the pre-actional phase tend to be more optimistic about the feasibility of the task (Freitas et al., 2004; L. Keller & Gollwitzer, 2017; Taylor & Gollwitzer, 1995). This ignoring of information is important in the volitional (will-power) stage to ensure that tasks are completed, otherwise we would all be stuck in a never-ending loop of reevaluating our options and accomplish nothing.

With desirability (attitude) slightly positive, the main effect of the implemental mindset of being more optimistic about risk and therefore reducing feasibility concerns, is still true, ensuring that entrepreneurial retraining was chosen (92%). That is, goal commitment was sufficiently high enough so that the effects of the implemental mindset on implementation intentions made a difference to goal realisation. In other words, we have that our earlier proposal that take-up of entrepreneurship programs can be improved using a marketing campaign focussed on implemental or concrete (rational how) elements holds when attitudes or desirability is medium.

In a recent Global Entrepreneurship Monitor survey (GEM, 2023) of 43 countries, more than 50% of the 18-64 population in 37 countries agreed with the statement that in their country, most people consider starting a business as a desirable career choice. With the rate in India, South Africa and the United States 82.5%, 79.8% and 75.9% respectively. The only countries where less of half of the population were positive about an entrepreneurial career choice was Austria, Taiwan, Spain, Poland, Switzerland and Japan. Although the GEM survey item is not equivalent to a full personal attitude toward to entrepreneurship scale, it does measure social norms, which we know influences personal attitudes.

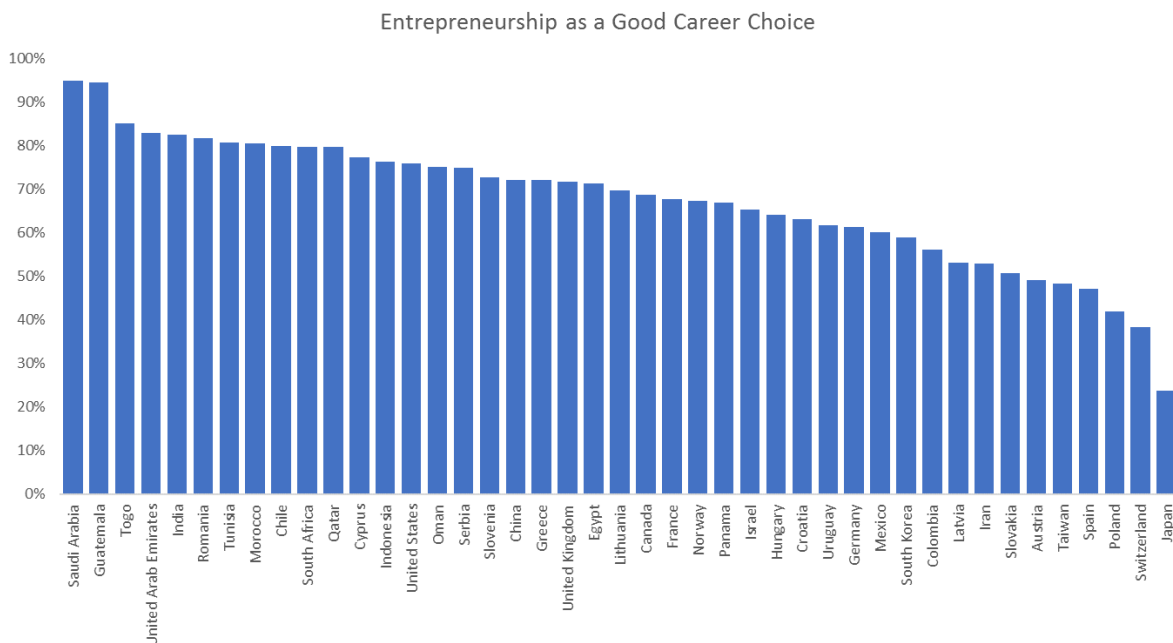


Figure 121: % of Public viewing entrepreneurship as a good career choice (GEM, 2023)

Furthermore, we found in the current research study that 74.3% of participants had either a medium or high attitude toward entrepreneurship. Therefore, we posit, given that most of the population either has a medium or high attitude, that non-targeted entrepreneurial promotion campaign in most countries can be made more efficient by using a marketing campaign focussed on implemental or concrete (rational how).

Lastly, we turn to the impact of the deliberative mindset on those with a medium attitude toward entrepreneurship, in other words who mostly chose neutral or slightly agree answers to positive entrepreneurship career attitude statements. This reversal of trends in the middle of attitude or desirability range is surprising. It appears those who are slightly positive towards the desirability aspects of entrepreneurship, i.e. medium goal commitment (desirability or attitude), had lower goal attainment (taking action by choosing entrepreneurial retraining), in contrast with those that had low goal commitment who had higher goal attainment compared to the control group, and those in high goal commitment who didn't differ on goal attainment from the control group.

To understand this paradox, we posit that disappointment aversion interacts with the probability of taking an action whilst in the deliberative mindset. The reasoning behind disappointment aversion is that if you have high expectations of something, in order to not be disappointed, you are less likely to take a risky decision (Gul, 1991; Jia et al., 2001). Those with medium desirability, does not have enough goal commitment to overcome the negative impact of disappointment aversion, i.e. like those with high desirability (Fitzsimmons & Douglas, 2011). However, those with medium desirability also have more to lose than those with low desirability, and therefore disappointment aversion overrides the positive impact of the open-mindedness on value perception (my value assertion might not be correct) (Winterich & Nenkov, 2015).

So, in summary, we see that in the deliberative mindset:

- those with high personal value judgements (desirability or attitude) does not differ from the control group, given the interplay between higher risk sensitivity (L. Keller & Gollwitzer, 2017) and high desirability override (Fitzsimmons & Douglas, 2011),

- those with medium personal value judgements are less likely than the control group to choose entrepreneurial training, given the interplay between disappointment aversion (Gul, 1991; Jia et al., 2001),
- those with low personal value judgements are more likely than the control group to choose entrepreneurial training, given open-mindedness towards the value judgement of others (Winterich & Nenkov, 2015).

And in the implemental:

- those with high personal value judgements (desirability or attitude) are more likely than the control group to take-up entrepreneurship retraining, given blindness towards feasibility concerns, i.e. illusionary optimism Keller & Gollwitzer (2017),
- those with medium personal value judgements, similar to the high personal value judgement group, are more likely than the control group to take-up entrepreneurship retraining, given feasibility blindness and task optimism (Freitas et al., 2004; L. Keller & Gollwitzer, 2017; Taylor & Gollwitzer, 1995),
- those with low personal value judgements does not differ from the control group to choose entrepreneurial training, given the lack of goal commitment (Seo et al., 2018).

We therefore conclude, that with high rates of “missing” entrepreneurs and high unemployment rates, that the take-up of entrepreneurship training programs aimed at the unemployed can be increased in:

- non-targeted entrepreneurial promotion campaigns in most countries by using a marketing campaign focussed on implemental or concrete (rational how) messages,
- targeted entrepreneurial promotion campaigns in areas or amongst groups where attitudes toward entrepreneurship is low, by using a marketing campaign focussed on deliberative or abstract (emotional why) elements.

5.4. Entrepreneurial Intentions

The ultimate purpose of the current research is to enable unemployed individuals find a road back into employment via entrepreneurship, and thereby reduce poverty. Given the limited timeframe of a masters’ thesis, the research focused on perceptions, intentions, and career

choice. In other words, we could not fit new venture creation into the current research study, and we therefore rely on the link between intention and behaviour.

Philosophers as far back as Socrates have been debating the link between intentionality and behaviour, for example, are good intentions an excuse for bad behaviour? For our purposes we continued with the simple link as describe in Fayolle et al. (2015), that intention is a representation of the direction of future action which affects individuals' choices and behaviour.

In chapter 2 we showed how intention is a good predictor of behaviour, and more specifically, planned behaviour (Ajzen, 1991; Arshad, 2019; Krueger et al., 2000a; Lavelle, 2021). Entrepreneurship, or the act of setting up and running new businesses by seeing opportunities in the market and gathering resources, is planned intentional behaviour (Arshad, 2019; Vodă & Florea, 2019). We therefore defined entrepreneurial intention in chapter 2 as a representation of the direction of future entrepreneurial action which affects individuals' choices and behaviour (Fayolle et al., 2015).

Using a ten-item entrepreneurial intention measure developed by Thompson (2009), and used in South Africa by Botha & Bignotti (2017), and after excluding the four items designed as red herrings, we saw from the confirmatory factor analysis results in chapter 3 that two items had low factor loadings, and were consequently excluded from the measure in the current research study. The items excluded were “I never search for business start-up opportunities” and “I am saving money to start a small business”. In addition to the lower factor loadings, excluding the last item has face validity, since our population consisted of people who has recently lost their jobs, and therefore would be unlikely have income to save.

The four remaining items, “ I intend to set up a small business in future”, “I never read books or online articles on how to start a small business”, “I have no plans to ever launch my own business”, and “I spend time learning about how to start a small business” are clearly after having crossed the decisional Rubicon, i.e. focused on how, where and when planning. Excluding the opportunity search item therefore also have some face validity, since it still considered options in a pre-decisional mindset.

The four-item entrepreneurial intention measure showed good discriminatory validity (average variance extract = 0.89, vs maximum squared factor correlation = 0.59) and internal reliability (Cronbach alpha of 0.78). Therefore, we proceeded in chapter four to test our hypothesis linking attitude toward entrepreneurship, retraining choice, and construal level disposition to entrepreneurial intention.

5.4.1. Attitudes and Intentions

From the Theory of Planned Behaviour (TPB), we have that attitude toward entrepreneurship positively influences entrepreneurial intentions (Ajzen, 1991; Fayolle et al., 2015; Krueger, 2017; Tornikoski & Maalaoui, 2019; Zaremohzzabieh et al., 2019).

As discussed in chapter 2, the theory of planned behaviour was originally conceptualised by Ajzen (1991) as an expansion to the theory of reasoned action. It provides a model to link perception; individual attitudes, social norms, and perceived behavioural control (self-efficacy and controllability) with entrepreneurial intention, and entrepreneurial behaviour or action. Leading us to the hypothesis attitude toward entrepreneurship (ATE) increases entrepreneurial intention (EI) in recently unemployed workers, which we tested in chapter 4 using Spearman rank correlation, since ATE did not meet the assumption of normality. We used the 4-item attitude toward entrepreneurship and 4-item entrepreneurial intention to test the hypothesis, since these measures showed good internal discriminant validity (average variance extracted of 0.95 and 0.89 respectively vs maximum squared factor correlation of 0.59), and good internal reliability (Cronbach alpha of 0.88 and 0.78 respectively).

The Spearman correlation between attitude toward entrepreneurship and entrepreneurial intention was 0.6, which is considered being a large effect size (Farmus et al., 2023). This is aligned to several other studies which found that attitude toward entrepreneurship has a large impact on entrepreneurial intention, specifically the more positive your attitude the higher your intention. However, the majority of these previous research studies were on student samples, which has been shown to have exaggerated the impact of attitudes on intentions (Schlaegel & Koenig, 2014). The current study confirms that this relationship is still intact in recently unemployed workers, and that this element of the theory of planned behaviour is sound on a wider population.

5.4.2. Retraining Choice and Intentions

As discussed in chapter 2, the psychological effect of unemployment has been studied for many years. This effect includes lower life satisfaction and well-being for a long time after re-employment (more than 20 years) due to feelings of insecurity and possible future unemployment. Understandably, people who were previously unemployed are reluctant to switch jobs and therefore have worse career development.

Risk aversion and dealing with ambiguity is also more generally linked to poverty and scarcity. (Unemployment is closely related to poverty. Poorer individuals mostly rely on finding work to survive.) Ambiguity here is defined wider than risk. Whereas risk averse individuals prefer high probability items over low probability options, ambiguity adverse individuals prefer known probability items over unknown probability items. In other words, an ambiguity averse person would choose a high-risk option rather than ambiguous one. Studies have found that the income and employment status of parents also affect the career choice of children. With poorer students preferring education or health careers over riskier options such as economics or physics (Caner & Okten, 2010; Chivers, 2017).

We also have from the Global Entrepreneurship Monitor survey (GEM, 2023) that in 13 countries, including South Africa, India, Canada and the United Kingdom, more of 50% of the 18 – 64 population who saw good entrepreneurial opportunities in their local area, indicated that they would not start a business for fear it might fail.

From the literature we have that entrepreneurial education (via entrepreneurial self-efficacy) influences entrepreneurial intentions (Ahmed et al., 2020; Cui & Bell, 2022; Schlaegel & Koenig, 2014). More specifically, we have that by providing entrepreneurial training, that individuals become more confident, which reduces fear of failure and increases entrepreneurial intentions.

Taking a course in entrepreneurship is a less risky choice than starting a business, and therefore in support of our ultimate purpose to enable unemployed individuals to find a road back into employment via entrepreneurship, and thereby reduce poverty, we offered the study participants a choice between general skills or entrepreneurial skills retraining courses. The general skills courses were designed to help participants be more marketable for a new job

(e.g. personal branding and work readiness), and the entrepreneurial courses were chosen to cover the broad aims of entrepreneurial education.

In chapter 4 we tested our hypothesis that participants choosing entrepreneurship retraining courses have higher entrepreneurial intentions than participants choosing general retraining courses using a t-test. The results showed those choosing entrepreneurial retraining had a significantly higher average entrepreneurial intention score than those who chose general skills retraining (p-value = 0.007). The average entrepreneurial intention score for those choosing general skills retraining was 4.32, and the average entrepreneurial intention score for those choosing entrepreneurial retraining was 4.96 (i.e. chose mostly agree or strongly agree to future entrepreneurial intention statements).

Although we will only see the full effect of the entrepreneurial retraining on entrepreneurial intentions after completion of the training, we already have those considering retraining are more willing to consider starting a business in future. This is aligned with most career choice literature which shows that training choice is congruent with future career intent, i.e. career intent driving initial training choice, and then by envisioning future self-efficacy, training choice driving intent (Liguori, Winkler, Vanevenhoven, Winkel, & James, 2019).

5.4.3. Construal Level Disposition and Intentions

Several previous research studies have shown that entrepreneurs have different personality qualities and thinking styles, one element being the ability to zoom in to details and zoom out to see the bigger picture.

Bazzy et al. (2019) showed in a study on 155 MBA students in the United States of America that abstract thinking tendency, measured via the Behaviour Identification Form, increases entrepreneurial intention by interacting with self-efficacy. Specifically, the study showed that abstract thinking can counteract low self-efficacy.

As discussed in chapter 2, Donaldson et al. (2021) highlighted that we do not know whether this holds across the different phases of entrepreneurship, i.e. development of intention, searching for opportunity, planning to bring resources together etc. In other words,

entrepreneurship attitudes, intentions and behaviour is a process, and any study of intentions should include a temporal lens.

Given this, and the generalisability concerns of student samples (Schlaegel & Koenig, 2014) we tested whether Construal level disposition (CLD) increases entrepreneurial intention (EI) for recently unemployed workers in chapter 4.

We used the 9-item behaviour identification form, and the 4-item entrepreneurial intention to test the hypothesis, since these measures showed good internal discriminant validity, and good internal reliability (Cronbach alpha of 0.88 and 0.78 respectively). The Pearson correlation between construal level disposition and entrepreneurial intentions in the current research study was 0.022, which is not significantly different from zero. We therefore conclude that within our sample of unemployed individuals, at a time when they are considering new employment opportunities by engaging in either general or entrepreneurial training, that there is no relationship between construal level disposition and entrepreneurial intentions. Specifically, we cannot replicate Bazy et al.'s findings that abstract thinking tendency increases entrepreneurial intentions.

The finding suggests that in the very early stages, i.e. still thinking about retraining, that abstract thinking tendency does not interact with self-efficacy to result in higher entrepreneurial intentions. We showed in actual fact that the relationship between situational abstract and concrete thinking (i.e. deliberative and implemental mindset), training choice (envisioning future self-efficacy), and entrepreneurial intentions is non-linear and is moderated by attitude toward entrepreneurship.

Previous research findings on business students showing abstract thinking can counteract low self-efficacy to increase entrepreneurial intention made sense since many businesses students are already in a opportunity searching / evaluation phase. Whereas in our sample of unemployed individuals, who had high risk aversion, and were in a pre-decisional state of deciding between careers, but who had on average positive attitudes toward entrepreneurship, it makes sense that other cognitive thinking styles might be needed, such as implemental thinking with feasibility blindness.

Our result is at least consistent with the literature suggesting that the relationship between entrepreneurial intent and cognitive style must surely vary across the stages of entrepreneurship, from thinking about it, to scaling your business (Bazzy et al., 2019; Donaldson et al., 2021).

5.4.4. Gender, Attitudes, and Intentions

As discussed, to ensure well represented treatment and control groups, several demographic variables (gender, age, income, highest level of education) were obtained in the current studies survey. Of the four demographic variables, only gender showed any significant interaction with attitude toward entrepreneurship and entrepreneurial intention. Of the 144 respondents, a 138 were comfortable to share demographic information, 54 were female, and 84 were male.

We used the 4-item attitude toward entrepreneurship and 4-item entrepreneurial intention to test the interaction, since these measures showed good internal discriminant validity (average variance extracted of 0.95 and 0.89 respectively vs maximum squared factor correlation of 0.59), and good internal reliability (Cronbach alpha of 0.88 and 0.78 respectively).

Males had an average attitude toward entrepreneurship score of 5.32 and females had an average attitude toward entrepreneurship score of 4.87. The Wilcoxon Mann-Whitney to test for differences had a p value of 0.042, showing that the attitude toward entrepreneurship of males and females differ significantly; specifically, that males had more positive attitudes toward entrepreneurship.

Males had an average entrepreneurial intent score of 4.89 and females had an average entrepreneurial intent score of 4.45. The t-test to test for differences had a p value of 0.029, showing that the entrepreneurial intentions of males and females differ significantly; specifically, that males had higher entrepreneurial intentions.

This finding is consistent with the literature, with females shown to be more sensitive towards social norms, had more difficulties in raising finance (impacting feasibility), and relied on education to overcome self-efficacy concerns (whereas males typically displayed blind optimism). The recent OECD / European Commission study (2023) highlights that

there continues to be large gender gaps in entrepreneurship with 9% of women in OECD countries setting up or running a new business, compared to 11% of men.

The aim of this study was not to research gender, but the finding and the literature suggests that education, such as entrepreneurial retraining, could help close the gap, and create some economic independence for females, plus add to the diversity of ideas in creating of new products and solutions that solve some of the planet's greatest threats, i.e. many heads are better than one, or better said, many different heads are better than many same heads.

6. CONCLUSION

6.1. Overview

(Block & Sandner, 2009)(OECD/The European Commission, 2023)

From a theoretical perspective, we aimed to address the following research questions: Does online mindset priming influence retraining choice in recently unemployed individuals? And Does online mindset priming influence entrepreneurial intentions in recently unemployed individuals?

From these research aims, we constructed the following research objectives:

- To determine whether mindset priming influences retraining choice after recent unemployment.
- To assess the interaction between attitude toward entrepreneurship, entrepreneurial intention, mindset priming and retraining choice after recent unemployment.
- To determine whether deliberative and implemental mindset priming influences construal level disposition of recently unemployed workers.
- To determine whether construal level disposition is related to entrepreneurial intention of recently unemployed workers.

In this final chapter we summarise the main findings of this research study, before we discuss the main theoretical implications for mindset theory and entrepreneurial intentions, and then the practical implications of the research. We end off with limitations and suggestions for future research.

6.2. Summary of Main Findings

To test our hypothesis, we conducted a randomised control experiment using online surveys with one control group and two treatment groups. We experimentally manipulated the mindset of 144 recently unemployed workers using a well-known priming technique, and then gave a choice of entrepreneurial or general / job readiness training. Participants also completed measures of entrepreneurial intention, attitude toward entrepreneurship, and construal level disposition.

Only 48% of the control group chose entrepreneurial retraining, which shows that even in a lower risk choice environment, such as subsidised entrepreneurial retraining (as oppose to starting a new business), and in a country where formal employment opportunities are scarce, unemployed individuals prefer to go after a less certain option of stable future formal employment, rather than a more certain option of ambiguous stability future self-employment. This confirms that ambiguity aversion of unemployed individuals is similar those of the poor, i.e. it aligns to the poverty trap, by going after certainty, and not investing in more ambiguous, but higher upside options these individuals choose to survive rather than thrive (Chivers, 2017; Li, 2017; Visser et al., 2020).

The mindset priming results revealed that in contrast with those in the control group, those in the implemental mindset group chose entrepreneurship retraining 72% of the time. The deliberative mindset treatment group did not differ significantly from the control group (choosing entrepreneurship training 54% of the time).

When introducing attitude toward entrepreneurship, a logistic regression predicting retraining choice, we saw that mindset have a cross-over interaction with attitude, specifically we have that when attitude toward entrepreneurship is high, then those in the implemental mindset treatment group had a higher probability of choosing the entrepreneurial course. However, when attitude toward entrepreneurship is low, then those in the deliberative mindset treatment group had a higher probability than those in the implemental treatment group of choosing the entrepreneurial course. To investigate the cross-over interactive effect, a grouping of attitude toward entrepreneurship (into low, medium and high) revealed that 54% of those in the deliberative treatment group who had a low attitude toward entrepreneurship chose entrepreneurial retraining, significantly higher than those in the control and implemental groups, both at 29%. Whereas if the attitude toward entrepreneurship was high, 89% of those in the implemental treatment group chose entrepreneurship training, significantly higher than those in the control and deliberative groups at 57% and 65% respectively.

The results also showed the effect of disappointment aversion in the deliberative treatment group when attitudes toward entrepreneurship was medium. Only 19% of those in the deliberative treatment group with a medium attitude toward entrepreneurship chose

entrepreneurial retraining (compared to 52% and 92% in the control and implemental groups respectively).

The results of the current research study show that the mindset priming was successful, with two independent judges reading the responses to the separate life goals / methods follow-up question, and coding the responses as either deliberative, implemental or neither. Of the 123 participants that received a mindset prime (in the treatment groups), 91.9% of responses were congruent with the mindset prime.

The literature is mixed on whether mindset induction impacts construal level disposition as measured by the Behaviour Identification Form. Several studies have found a significant correlation between situationally induced mindset (implemental/concrete or decisional/abstract) and construal level disposition, however, more recently there have been several studies showing that this relationship does not hold on larger samples. These studies posit that the Behaviour Identification Form is more likely to measure stable individual tendency (or trait) than able to capture situational variations in abstraction, which is in line with the original development of the instrument.

After removing Behaviour Identification Form items that had low factor loadings (and so showed low internal construct discriminant validity), the correlation analysis on the reduced Behaviour Identification Form, measuring construal level disposition, and the situationally induced mindsets revealed that there was no significant impact. The effect of the mindset priming might be too subtle, or more likely as discussed in recent literature, the Behaviour Identification Form is not suitable to detect differences in situational mindset priming, but it is rather a measure of a stable individual trait or disposition.

The current study results showed that attitude toward entrepreneurship has a large impact on entrepreneurial intention for recently unemployed workers. This extends the generalisability of the effect of attitude on a wider population (wider than students which were the subjects of the majority of previous research studies).

While the complete impact of the entrepreneurial retraining on entrepreneurial intentions will be evident only after the training is completed,

This is aligned with most career choice literature which shows that training choice is congruent with future career intent, i.e. career intent driving initial training choice, and then by envisioning future self-efficacy, training choice driving intent.

Lastly the results of the current research study show that although situational mindset priming increases entrepreneurial intentions via retraining choice (moderated through attitude towards entrepreneurship), construal level disposition does not increase entrepreneurial intentions of recently unemployed individuals. The current study's findings, although not extending the generalisability of previous findings, which showed that construal level disposition does increase entrepreneurial intentions, is at least consistent with the literature suggesting that the relationship between entrepreneurial intent and cognitive style varies across the stages of becoming an entrepreneur.

6.3. Mindset Theory Implications

Three of the four research objectives of the current study were constructed to contribute to mindset priming theory, namely, expanding mindset priming theory to include entrepreneurial training promotion, expanding mindset priming theory to include entrepreneurial intention, and extending the generalisability of the impact of situational mindset priming influence on construal level disposition.

Mindset theory findings are being applied across several industries, governmental, commercial, and non-governmental to change individuals' behaviour. In several studies involving health (messages to the public), it has been shown that when dealing with outcomes where desirability has not been established yet, for example to consume alcohol less, abstract (emotional) appeals are more effective (Herter et al., 2022). Moreover, that the effect is true both ways, those in an implemental mindset sees goal related actions as progress towards the goal, and those in a deliberative mindset sees goal related actions as obtaining goal commitment (desirability). Consequently, to improve health appeals, abstract (emotional) appeals are more effective when the consumer is in a deliberative mindset, and concrete (rational) appeals are more effective when the consumer is in a implemental mindset. Mindset theory has also improved health messages involving short term pain for long term gain (for example giving up sugar or starting an exercise routine) by showing that the deliberative mindset is improves self-control (Carrera et al., 2018).

Beyond health, mindset theory findings have also been applied in information security appeals, showing that when desirability is not in question, for example no one wants to have their identity stolen, that concrete based messages are more effective (Schuetz et al., 2020).

In savings promotion research, Winterich & Nenkov were able to more than double savings (\$133.82 vs \$62.44) by inducing a deliberative mindset. Specifically, they show those in a deliberative mindset is more open-minded towards the value judgement of others, i.e. my value judgement (desirability of an action) might be incorrect, which improved marketing campaigns by inducing a deliberative mindset and sharing peer information of savings.

However, to our knowledge mindset theory has only been applied in entrepreneurial promotion to show that construal level disposition is related to entrepreneurial intention (Bazzy et al., 2019; Donaldson et al., 2021), but have not tested whether mindset priming can be used in entrepreneurial promotion. The current research study therefore contributes to mindset priming theory by extending it to entrepreneurial promotion, by showing that mindset priming can be used effectively to increase entrepreneurial training take-up.

Specifically, the current research study's implication is that the take-up of entrepreneurship training programs aimed at the unemployed can be increased in:

- non-targeted entrepreneurial promotion campaigns in most countries by using a marketing campaign focussed on implemental or concrete (rational how) messages,
- targeted entrepreneurial promotion campaigns in areas or amongst groups where attitudes toward entrepreneurship is low, by using a marketing campaign focussed on deliberative or abstract (emotional why) elements.

The current research study also contributes to mindset priming theory by proposing a medium desirability disappointment aversion effect. Previous research has focused on either goal progress (high desirability) or goal commitment (low desirability) effects. In the current research study, we showed that in a deliberative mindset, individuals with medium slightly positive, but not very positive desirability, have extremely low goal behaviour. The reasoning behind disappointment aversion is that if you have high expectations of something, in order to not be disappointed, you are less likely to take a risky or less feasible decision

(Gul, 1991; Jia et al., 2001). The deliberative mindset weights risk more cautiously / accurately, and therefore decrease feasibility expectations.

Those with medium desirability attitudes does not have enough goal commitment to overcome the negative impact of the lower feasibility and the disappointment aversion effect, i.e. like those with high desirability (Fitzsimmons & Douglas, 2011). Specifically, high desirability can override low feasibility concerns. In addition, those with medium desirability also have more to lose than those with low desirability, and therefore disappointment aversion overrides the positive impact of the open-mindedness on value perception (my value assertion might not be correct) (Winterich & Nenkov, 2015).

As discussed, mindset theory has only been applied to show that construal level disposition is related to entrepreneurial intention (Bazzy et al., 2019; Donaldson et al., 2021). Specifically, that abstract thinking tendency increases entrepreneurial intentions. The currently research study therefore contributes to mindset priming theory by extending it to entrepreneurial intentions, by showing that mindset priming influences entrepreneurial intentions via training choice (envisioning future self-efficacy) moderated by attitude toward entrepreneurship (non-linear).

Specifically, the current research study's implication is that the entrepreneurial intentions can be increased by promoting entrepreneurship education (envisioning future self-efficacy) in the following way:

- when attitude toward entrepreneurship is low, using deliberative / abstract / “why” appeals,
- when attitude toward entrepreneurship is medium, using implemental / concrete / “how” appeals,
- when attitude toward entrepreneurship is high, using implemental / concrete / “how” appeals.

As discussed, the literature is mixed on whether mindset induction impacts construal level disposition. Several studies have found a significant correlation between situationally induced mindset (implemental/concrete or decisional/abstract) and construal level disposition, however, more recently there have been several studies showing that this

relationship does not hold. The currently research study therefore contributes to mindset priming theory by joining recent studies (Benschop et al., 2021; Nguyen et al., 2023; Trautmann, 2019) in confirming that the Behaviour Identification Form is more likely to measure stable individual tendency (or trait) than able to capture situational variations in abstraction, which is in line with the original development of the instrument (Vallacher & Wegner, 1989).

Specifically, the current research study showed that there is not a significant correlation between situationally induced mindsets and construal level disposition. Although this might be because the situationally induced mindset effect is too subtle, given the growing research that the Behaviour Identification Form is not suitable to measure situationally induced mindsets, we side with the proposal that situational mindsets are not equivalent to construal level disposition.

Lastly, although it was not the aim of this research study to update the Behaviour Identification Form, this research study contributes to mindset theory by highlighting internal discriminant and face validity concerns of 16 of the Behaviour Identification Form items.

Specifically the current research study adds to Nguyen et al.'s (2023) research, by showing which items that 10 items likely does not have meet the saliency requirements for actions on a culturally diverse South African unemployed worker population, namely:

“Joining the Army”, “Washing Clothes”, “Picking an Apple”, “Chopping down a tree”, “Measuring a room for carpeting”, “Caring for houseplants”, “Climbing a tree”, “Filling out a personality test”, “Traveling by car”, and “Having a cavity filled”.

In addition, the current research study, shows that on the culturally diverse population, that 6 of the items had descriptions that does not meet goal congruency requirements, namely: “Making a list”, “Reading”, “Voting”, “Resisting temptation”, “Growing a garden”, and “Talking to a child”.

6.4. Entrepreneurial Intentions Implications

Two of the four research objectives of the current research study were constructed to contribute to entrepreneurial intentions theory, namely, determining the interaction between

attitude toward entrepreneurship, entrepreneurial intention, mindset priming and retraining choice after recent unemployment, and determine whether construal level disposition is related to entrepreneurial intention of recently unemployed workers.

As discussed, mindset theory has only been applied to show that abstract thinking tendency impacts entrepreneurial intention, and interacts with self-efficacy and perceived desirability (Bazzy et al., 2019; Donaldson et al., 2021). The currently research study therefore contributes to entrepreneurial intention theory by incorporating situational mindset priming and training choice.

Specifically, the current research study showed that mindset priming impacts retraining choice, attitude toward entrepreneurship impacts retraining choice, the interaction between mindset priming and attitude toward entrepreneurship impact retraining choice, retraining choice impacts entrepreneurial intention, and attitude toward entrepreneurship impacts entrepreneurial intention on a population of recently unemployed workers. The significant relationship is shown in the diagram below using Spearman correlations.

These results improve our understanding of the way that mindset priming could impact entrepreneurial intentions, i.e. situational mindset priming increases entrepreneurial intentions via retraining choice (moderated through attitude towards entrepreneurship). In other words, the study identified a mindset priming method that might help individuals beat feasibility and desirability concerns, and keep on the road toward entrepreneurial intentions, and eventually new venture start-up.

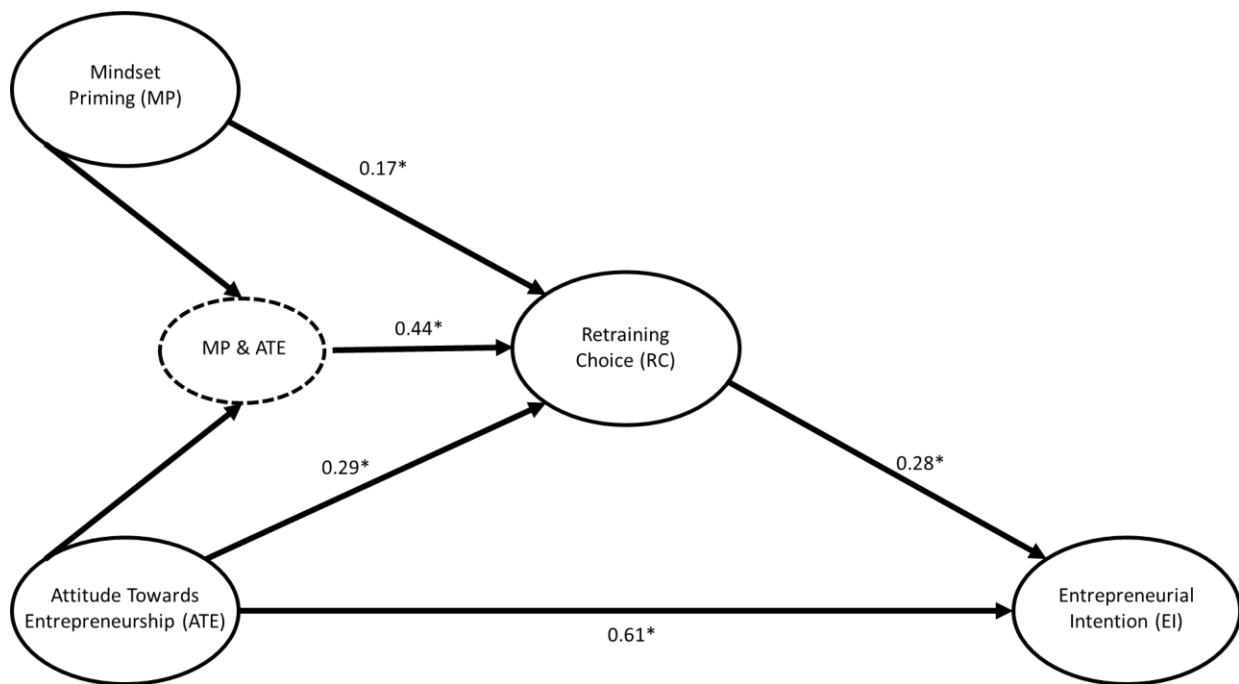


Figure 132: Significant Spearman correlations: attitude toward entrepreneurship, entrepreneurial intention, mindset priming and retraining choice

*Indicates statistically significant relationships.

Specifically, the current research study contributes to entrepreneurial intention research by showing that retraining choice can be predicted using attitude toward entrepreneurship, mindset priming, and the interaction between mindset priming and attitude toward entrepreneurship (good fit with AUC-ROC of 0.726). Moreover, the interaction effect is a cross over effect, that is the two mindset induction groups change sign compared to the control group depending on attitude toward entrepreneurship. Contingency tables grouped in three attitude toward entrepreneurship groups showed that:

- if attitude toward entrepreneurship is **high**, significantly more of those in the implemental mindset chose entrepreneurial retraining, compared the control group and the deliberative mindset groups. The effect size was medium (Cramer's $V = 0.28$)
- if attitude toward entrepreneurship is **medium**, significantly more of those in the implemental mindset chose entrepreneurial retraining, compared to the control group. Interestingly, those in the deliberative mindset chose entrepreneurial training significantly less than those in the control group. The effect size was large (Cramer's $V = 0.67$)

- if attitude toward entrepreneurship is **low**, significantly more of those in the deliberative mindset chose entrepreneurial retraining compared to the control and implemental mindset groups. The effect size is medium (Cramer's $V = 0.24$)

These results suggest that entrepreneurial education take-up can be improved by using the deliberative and implemental mindset. We suggest that this has implications wider than only unemployed workers, for example the results could be used at career fairs, expos, and college open days.

The current study also contributes to entrepreneurial intention research, by extending the generalisability of the impact of attitude on entrepreneurial intentions using a sample of recently unemployed workers (a wider population than students which were the subjects of most previous research studies).

As discussed, although we will only see the full effect of the entrepreneurial retraining on entrepreneurial intentions after completion of the training, this adds to the entrepreneurial career choice literature by testing congruent career intent theory on a population to recently unemployed workers.

Lastly the results of the current research study contribute to entrepreneurial intention research by showing that construal level disposition does not increase entrepreneurial intentions of recently unemployed individuals. Specifically, the current research study shows that there is not a significant correlation between construal level disposition and entrepreneurial intentions for a population of recently unemployed workers. The current study's findings, although not extending the generalisability of previous findings, which showed that construal level disposition increases entrepreneurial intentions, it answers the call to research the relationship between entrepreneurial intent and cognitive style across different stages of becoming an entrepreneur (Donaldson et al., 2021).

6.5. Practical Implications: Entrepreneurship Promotion to Unemployed Workers

The research presented focussed on how to improve take-up of entrepreneurial education amongst the recently unemployed, and therefore all four research objectives of the current

study were constructed to contribute to practically contribute to entrepreneurship promotion to unemployed workers' research.

With 34.1 million “missing” entrepreneurs in OECD countries, defined here as those who could be potential entrepreneurs but has some motivational, volitional or real barrier to overcome (OECD/The European Commission, 2023), and with high global unemployment rates, any lift to governmental and non-governmental entrepreneurship promotion efforts is sorely needed.

As discussed, mindset theory findings are being applied across several industries, governmental, commercial, and non-governmental to change individuals' behaviour. In several studies involving health, information security and savings (messages to the public), mindset priming has been shown to increase healthy behaviours, reduce information security risky behaviour and increase savings rates.

By extending mindset priming theory to entrepreneurship, and given the medium to large effect sizes found, the current research study therefore practically contributes to entrepreneurship promotion to unemployed workers' research, by showing that mindset priming can be used effectively to increase entrepreneurial training take-up.

Specifically, the current research study's implication is that the entrepreneurial intentions can be increased by promoting entrepreneurship education (envisioning future self-efficacy) in the following way:

- when attitude toward entrepreneurship is low, using deliberative / abstract / “why” appeals,
- when attitude toward entrepreneurship is medium, using implemental / concrete / “how” appeals,
- when attitude toward entrepreneurship is high, using implemental / concrete / “how” appeals.

Despite Shane's (2009) scathing review of public policy, “why encouraging more people to become entrepreneurs is bad public policy” by referencing that unemployed individuals make poor entrepreneurs. Block & Sandner (2009) find that firm survival for opportunity and

necessity entrepreneurs are not significantly different when controlling for entrepreneurship education. In other words, necessity entrepreneurs are as effective as opportunity entrepreneurs in starting sustainable businesses if they have similar educational levels. Therefore, programs promoting entrepreneurship that includes entrepreneurial education could be efficient in stimulating economic growth and reduced unemployment.

As discussed, in a recent Global Entrepreneurship Monitor survey (GEM, 2023) of 43 countries, more than 50% of the 18-64 population in 37 countries agreed with the statement that in their country, most people consider starting a business as a desirable career choice. With the rate in India, South Africa and the United States 82.5%, 79.8% and 75.9% respectively. The only countries where less of half of the population were positive about an entrepreneurial career choice was Austria, Taiwan, Spain, Poland, Switzerland and Japan. Although the GEM survey item is not equivalent to a full personal attitude toward to entrepreneurship scale, it does measure social norms, which influences personal attitudes.

Furthermore, we found in the current research study that 74.3% of participants had either a medium or high attitude toward entrepreneurship. Therefore, we posit, given that most of the population either has a medium or high attitude, that a non-targeted entrepreneurial promotion campaign in most countries can be made more efficient by using a marketing campaign focussed on implemental or concrete (rational how) messages.

Practically we therefore concluded that the take-up of entrepreneurship training programs aimed at the unemployed can be increased by:

- non-targeted entrepreneurial promotion campaigns in most countries by using a marketing campaign focussed on implemental or concrete (rational how) messages,
- targeted entrepreneurial promotion campaigns in areas or amongst groups where attitudes toward entrepreneurship is low, by using a marketing campaign focussed on deliberative or abstract (emotional why) elements.

Although the aim of the current research study was not to study gender, post hoc tests showed that males had significantly higher attitude toward entrepreneurship scores than females, and males had significantly higher entrepreneurial intention scores than females. This finding is consistent with the literature, with females shown to be more sensitive towards social norms,

had more difficulties in raising finance (impacting feasibility), and relied on education to overcome self-efficacy concerns.

The recent OECD / European Commission study (2023) highlights that there continues to be large gender gaps in entrepreneurship with 9% of women in OECD countries setting up or running a new business, compared to 11% of men. The post-hoc finding and the literature suggests that education, such as entrepreneurial retraining, could help close the gap, and create some economic independence for females, plus add to the diversity of ideas in creating of new products and solutions that solve some of the planet's greatest threats, i.e. many heads are better than one, or better said, many different heads are better than many same heads.

6.6. Limitations and Future Research

This research study was conducted in a particular economic environment in Southern Africa, and results may not be transferrable to other economic times or geographies, such as prosperous economic periods with low unemployment, or in geographic regions with sufficient social security for unemployed workers. However, we note that the sample was selected from a large Southern African retail bank database with a sizable market share across a wide range of LSM (living standards measure) groups, and that this research study adds to the existing body of knowledge which is dominated by business student samples. As argued by Krueger et al. (2000b) given the sensitivity of intentional process to initial conditions it is vital that entrepreneurial intention research includes non-entrepreneurial subjects, to which we add, and vital to include non-business orientated subjects. Future researchers might want to replicate the outcomes in the current research study on different populations, e.g. in countries with high social security safety nets.

We also note the low response rate within this research study might be of concern, although we also highlight the conclusion of Fossnacht et al. (2017) after a review of 555 studies, that high response rates are less important than ensuring the minimum number of participants are recruited. Additionally, we acknowledge that given the nature of the survey methodology, i.e. an online questionnaire, that respondents are skewed towards those with stable internet access.

Given the limited timeframe of a masters' thesis, the research study focused on perceptions, intentions, and retraining choice. Future follow up studies should include longitudinal entrepreneurial venture creation and success measures, including self-efficacy and social norm measures.

Furthermore, the research presented focussed on how to improve take-up of entrepreneurial education amongst the recently unemployed. Future research should try and replicate the outcomes in this research study in different populations, e.g. high school students, college students etc.

As noted, we found that the behavioural identification form, as a construal level disposition measure, is not sensitive enough to pick up changes in situationally primed mindsets. Future research should try and replicate the outcomes of this survey using the recently updated behaviour identification form, which allow participants to personalise the responses (to be goal congruent), which has also been shown to be sensitive toward temporal distance manipulations (Nguyen et al., 2023).

Lastly we note, that using the typology of Fitzsimmons & Douglas (2011), that by manipulating individuals via mindset priming to choose entrepreneurship, they might become "inevitable entrepreneurs" or "accidental entrepreneurs", which might need different support during their entrepreneurial journey than "natural entrepreneurs". Future research should include follow up desirability and feasibility attitudinal surveys.

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8. APPENDICES

8.1. Deliberative (Abstract) Survey

Introduction

Thank you for willingness to **complete this survey** which is being done in conjunction with ---- Bank as part of research for a masters degree at the University of Cape Town.

The aim of this research survey is to **understand more** about how people think about their goals, with a specific focus on **entrepreneurship** (starting or running a small business).

Please note that you do not have to participate, i.e. your participation is **voluntary**. The choice to participate is yours alone. If you choose not to participate, there will be no negative consequence. If you choose to participate, but wish to withdraw at any time, you will be free to do so without negative consequence.

The research survey consists of an online questionnaire which is expected to take **20 – 25 minutes** to complete.

There are no anticipated risks or benefits in completing this survey, other than that encountered in daily life. There are no right or wrong answers, but it is common for people to feel a certain amount of anxiety when completing a survey. You can stop at any time you feel uncomfortable.

To say thank you for completing this survey **you will receive vouchers for 3 online educational courses worth more than two thousand rand, and a 3 Gigs Day-Time and 3 Gigs Night-time data bundle at the cellular provider of your choice.**

The results of this study may be published or otherwise reported at conferences, but participants' identities will in no way be revealed (data will be **reported anonymously** and bear no identifiers that could connect data to individual participants). To ensure **confidentiality** the data file of compiled results will be kept in a password protected folder.

If you have any concerns or questions before, during or after completing this research survey, you may contact the researcher at -----bank.co.za.

Electronic Consent

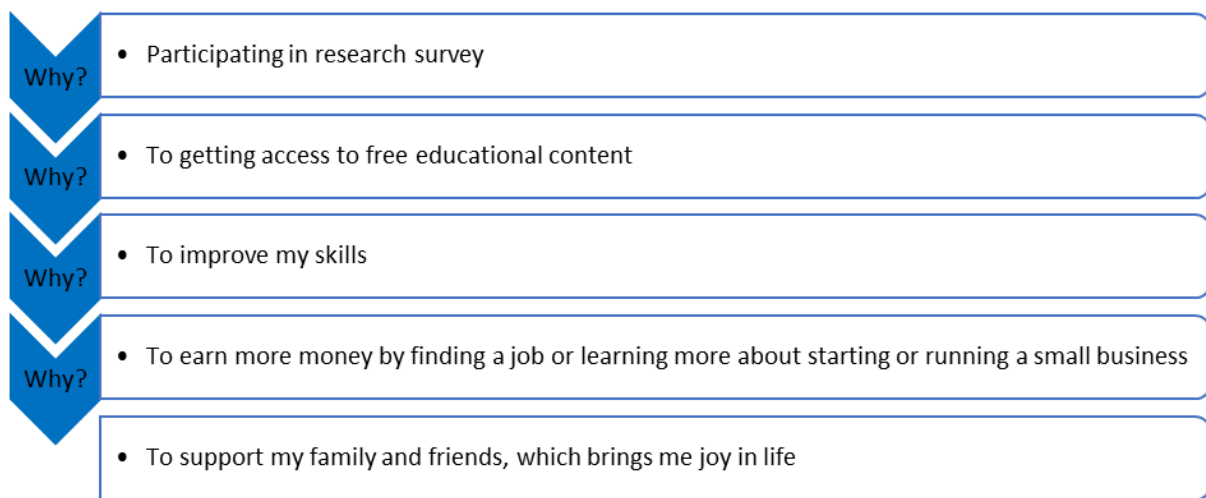
Please select your choice below to continue. You may print a copy of this consent form for your records. Clicking on the "Agree" button indicates that you have been informed of the purpose, benefits, and risks of participating in this survey, and voluntarily agree to participate.

Agree Disagree

Section 1

For everything we do, there always is a reason **why** we do it. Moreover, we often can trace the causes of our behaviour back to broad life-goals that we have. For example, you currently are participating in a research survey.

Why are you doing this? Perhaps to get access to educational content. **Why** are you wanting to access to educational content? Perhaps to improve your skills. **Why** improve your skills? Perhaps because you want to earn more money by finding a job, or learning to run your business more effectively, or learning to start up a small business. **Why** earn more money? Perhaps because you feel that doing so you can support your family and friends, which can bring you happiness in life.



Research suggests that engaging in thought exercises like that above, in which one thinks about why one's actions relate to one's ultimate life goals, can improve people's life satisfaction. In this research survey, we are testing such a technique. The thought exercise below is intended to focus your attention on **why** you do the things you do. For this thought exercise, please consider the following activity: "improving and maintaining one's physical health (fitness)"

Question 1

In a similar way as we suggested **why** you might be participating in a research survey, we would like you to think through why improving and maintaining one's physical health (fitness) is linked to an important life goal.

Please complete the diagram below to the best of your ability. There are no right or wrong answers. We just want you to think of why improving and maintain one's physical health (fitness) is linked to an important life goal.

Why? • Improve and maintain my physical health (fitness)

Why? •

Why? •

Why? •

Why? •

Question 2

Why improve or maintain one's physical health (fitness)? In which way could it be linked to one's important life goals. Please write down three possible **life goals, reasons or purposes** for improving or maintaining one's physical health (fitness)?

Thank you for taking some time to explain your thoughts on **why** improving or maintaining one's physical health (fitness) might be important to one's life goals.

1. _____
2. _____
3. _____

Section 2

Thank you for completing the first section of this research survey. There are only three more sections left.

To say thank you for completing this survey you will receive vouchers for 3 online educational courses worth more than two thousand rand, and a 3 Gigs Day-Time and 3 Gigs Night-time data bundle at the cellular provider of your choice.

Question 1

Please select which type of educational courses you would like to receive?

1. Entrepreneurial and Starting a Small Business Courses
2. General Skills Courses

Question 2

Please select your preferred cellular provider?

1. MTN
2. Vodacom
3. Telkom
4. Cell C
5. Other

Section 3

Thinking of yourself, how true or untrue is the following statements?

	Very Untrue	Untrue	Slightly Untrue	Slightly True	True	Very True
I intend to set up a small business in future						
I plan my future carefully						
I read business newspapers						
I never search for business start-up opportunities						
I read financial planning books						
I am saving money to start a small business						
I never read books or online articles on how to start a small business						
I plan my finances carefully						
I have no plans to ever launch my own business						
I spend time learning about how to start a small business						
Being an entrepreneur implies more advantages than disadvantages to me.						
A career as entrepreneur is attractive for me.						
If I had the opportunity and resources, I'd like to start a firm.						
I would be very happy to be an entrepreneur						
Among various options, I would rather be an entrepreneur.						

Section 4

Any behaviour can be described in many ways. For example, one person might describe a behaviour as “typing a paper”, while another might describe the behaviour as “pushing keys”. Yet another person might describe the behaviour as “expressing thoughts”. We are interested in your personal preferences for how a number of different behaviours should be described. On the following pages you will find several different behaviours listed. After each behaviour will be two choices of different ways in which the behaviour might be identified. Here is an example:

- 0. Attending class
 - A. Sitting in a chair
 - B. Looking at the blackboard

Your task is to choose the identification, A or B, that best describes the behaviour for you. Please choose only one alternative for each pair. Of course, there are no right or wrong answers. People simply differ in their preferences for the different behaviour descriptions, and we are interested in your personal preferences. Be sure to mark your choice for each behaviour. Remember choose the description that you personally believe is more appropriate in each pair.

Which best describes the behaviour on the left? A or B? Only choose one per line.

	A.	B.
1. Making a list	Getting Organized	Writing things down
2. Reading	Following lines of print	Gaining knowledge
3. Joining the Army	Helping the nation’s defence	Signing up
4. Washing Clothes	Removing odours from clothes	Putting clothes into the machine
5. Picking an Apple	Getting something to eat	Pulling an apple off a branch
6. Chopping down a tree	Wielding an axe	Getting firewood
7. Measuring a room for carpeting	Getting ready to remodel	Using a measuring tape
8. Cleaning the house	Showing one’s cleanliness	Vacuuming the floor
9. Painting a room	Applying brush strokes	Making the room look fresh
10. Paying the rent	Maintaining a place to live	Giving the property owner money
11. Caring for houseplants	Watering plants	Making the room look nice
12. Locking a door	Putting a key in the lock	Securing the house
13. Voting	Influencing the election	Marking a voting slip
14. Climbing a tree	Getting a good view	Holding on to branches
15. Filling out a personality test	Answering questions	Revealing what you’re like

	A.	B.
16. Toothbrushing	Preventing tooth decay	Moving a brush around in one's mouth
17. Taking a test	Answering questions	Showing one's knowledge
18. Greeting someone	Saying hello	Showing friendliness
19. Resisting temptation	Saying "no"	Showing moral courage
20. Eating	Getting nutrition	Chewing and swallowing
21. Growing a garden	Planting seeds	Getting fresh vegetables
22. Traveling by car	Following a map	Seeing countryside
23. Having a cavity filled	Protecting your teeth	Going to the dentist
24. Talking to a child	Teaching a child something	Using simple words
25. Pushing a doorbell	Moving a finger	Seeing if someone's home

Section 5

1. Please select your gender
 - a. Female
 - b. Male
 - c. Other

2. Please select your age group
 - a. Younger than 25 years old
 - b. 25 – 34 years old
 - c. 35 – 44 years old
 - d. 45 – 54 years old
 - e. Older than 55 years

3. Please select which of the following describes your total monthly income (when you were still employed)
 - a. Less than R15,000 per month before deductions
 - b. More than R15,000 but less than R25,000 per month before deductions
 - c. More than R25,000 but less than R50,000 per month before deductions
 - d. More than R50,000 but less than R75,000 per month before deductions
 - e. More than R75,000 per month before deductions

4. Please select your highest level of education
 - a. Less than Grade 10
 - b. Grade 10 equivalent
 - c. Grade 12 or equivalent
 - d. Diploma or Certificate
 - e. A bachelor's degree
 - f. An honors' degree
 - g. A masters or doctoral degree

Thank You

Thank you for completing this survey.

Since you have completed this survey you will receive vouchers for 3 online educational courses worth more than two thousand rand, and a 3 Gigs Day-Time and 3 Gigs Night-time data bundle at the cellular provider of your choice.

In order for us to send you the educational vouchers and cellular data, please state your email address and cell phone number below. This information will be kept confidential and will only be used for research purposes and to provide you with the vouchers.

E-Mail Address: _____

Cell Phone Number: _____

If you have any concerns or questions please contact us on moneysurvey@capitecbank.co.za.

8.2. Implemental (Concrete) Survey

Introduction

Thank you for willingness to **complete this survey** which is being done in conjunction with ---- Bank as part of research for a masters degree at the University of Cape Town.

The aim of this research survey is to **understand more** about how people think about their goals, with a specific focus on **entrepreneurship** (starting or running a small business).

Please note that you do not have to participate, i.e. your participation is **voluntary**. The choice to participate is yours alone. If you choose not to participate, there will be no negative consequence. If you choose to participate, but wish to withdraw at any time, you will be free to do so without negative consequence.

The research survey consists of an online questionnaire which is expected to take **20 – 25 minutes** to complete.

There are no anticipated risks or benefits in completing this survey, other than that encountered in daily life. There are no right or wrong answers, but it is common for people to feel a certain amount of anxiety when completing a survey. You can stop at any time you feel uncomfortable.

To say thank you for completing this survey **you will receive vouchers for 3 online educational courses worth more than two thousand rand, and a 3 Gigs Day-Time and 3 Gigs Night-time data bundle at the cellular provider of your choice.**

The results of this study may be published or otherwise reported at conferences, but participants' identities will in no way be revealed (data will be **reported anonymously** and bear no identifiers that could connect data to individual participants). To ensure **confidentiality** the data file of compiled results will be kept in a password protected folder.

If you have any concerns or questions before, during or after completing this research survey, you may contact the researcher ----@bank.co.za.

Electronic Consent

Please select your choice below to continue. You may print a copy of this consent form for your records. Clicking on the "Agree" button indicates that you have been informed of the purpose, benefits, and risks of participating in this survey, and voluntarily agree to participate.

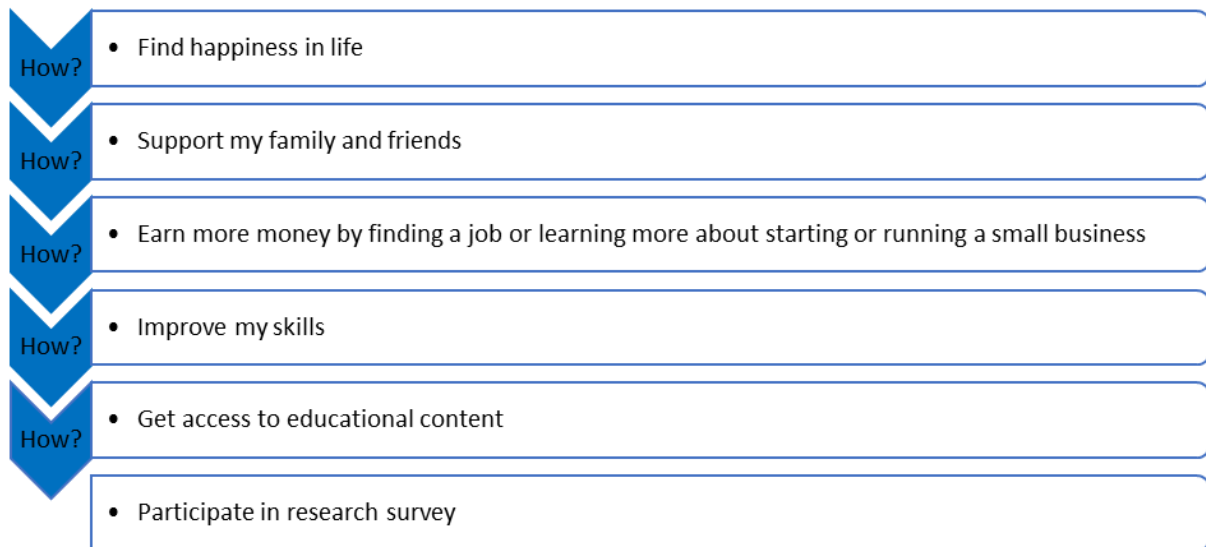
Agree Disagree

Section 1

For everything we do, there always is a process of **how** we do it. Moreover, we often can follow our broad life-goals down to our very specific behaviours. For example, like most people, you probably hope to find happiness in life.

How can you do this? Perhaps by supporting your family and friends, which can bring joy in life.

How can you do this? Perhaps by earning more money by finding a job or learning more about starting or running a small business. **How** do you earn more money? Perhaps by improving your skills. **How** do you improve your skills? Perhaps by getting access to educational courses. **How** do you get access to educational courses? Perhaps by participating in a research survey that you are completing today.



Research suggests that engaging in thought exercises like that above, in which one thinks about **how** one's ultimate life goals can be expressed through specific actions, can improve people's life satisfaction. In this research survey, we are testing such a technique. The thought exercise below is intended to focus your attention on **how** you do the things you do. For this thought exercise, please consider the following activity: "improving and maintaining one's physical health (fitness)"

Question 1

In a similar way as we suggested **how** one might find happiness in life, we would like you to think through **how** one can improve and maintain one's physical health (fitness). Follow **one** answer into detailed specific behaviours.

Please complete the diagram below to the best of your ability. There are no right or wrong answers. We just want you to think of **how** one can improve and maintain one's physical health (fitness).

How? • Improve and maintain my physical health (fitness)

How? •

How? •

How? •

How? •

Question 2

How to improve or maintain one's physical health (fitness)? **How** do you think one can improve or maintain one's physical health (fitness)? Please write down three possible **steps and methods** for improving or maintaining one's physical health (fitness).

Thank you for taking some time to explain your thoughts on **how to** improve or maintain one's physical health (fitness).

1. _____
2. _____
3. _____

Section 2

Thank you for completing the first section of this research survey. There are only three more sections left.

To say thank you for completing this survey you will receive vouchers for 3 online educational courses worth more than two thousand rand, and a 3 Gigs Day-Time and 3 Gigs Night-time data bundle at the cellular provider of your choice.

Question 1

Please select which type of educational courses you would like to receive?

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4. General Skills Courses

Question 2

Please select your preferred cellular provider?

6. MTN
7. Vodacom
8. Telkom
9. Cell C
10. Other

Section 3

Thinking of yourself, how true or untrue is the following statements?

	Very Untrue	Untrue	Slightly Untrue	Slightly True	True	Very True
I intend to set up a small business in future						
I plan my future carefully						
I read business newspapers						
I never search for business start-up opportunities						
I read financial planning books						
I am saving money to start a small business						
I never read books or online articles on how to start a small business						
I plan my finances carefully						
I have no plans to ever launch my own business						
I spend time learning about how to start a small business						
Being an entrepreneur implies more advantages than disadvantages to me.						
A career as entrepreneur is attractive for me.						
If I had the opportunity and resources, I'd like to start a firm.						
I would be very happy to be an entrepreneur						
Among various options, I would rather be an entrepreneur.						

Section 4

Any behaviour can be described in many ways. For example, one person might describe a behaviour as “typing a paper”, while another might describe the behaviour as “pushing keys”. Yet another person might describe the behaviour as “expressing thoughts”. We are interested in your personal preferences for how a number of different behaviours should be described. On the following pages you will find several different behaviours listed. After each behaviour will be two choices of different ways in which the behaviour might be identified. Here is an example:

5. Attending class
 - C. Sitting in a chair
 - D. Looking at the blackboard

Your task is to choose the identification, A or B, that best describes the behaviour for you. Please choose only one alternative for each pair. Of course, there are no right or wrong answers. People simply differ in their preferences for the different behaviour descriptions, and we are interested in your personal preferences. Be sure to mark your choice for each behaviour. Remember choose the description that you personally believe is more appropriate in each pair.

Which best describes the behaviour on the left? A or B? Only choose one per line.

	A.	B.
26. Making a list	Getting Organized	Writing things down
27. Reading	Following lines of print	Gaining knowledge
28. Joining the Army	Helping the nation’s defence	Signing up
29. Washing Clothes	Removing odours from clothes	Putting clothes into the machine
30. Picking an Apple	Getting something to eat	Pulling an apple off a branch
31. Chopping down a tree	Wielding an axe	Getting firewood
32. Measuring a room for carpeting	Getting ready to remodel	Using a measuring tape
33. Cleaning the house	Showing one’s cleanliness	Vacuuming the floor
34. Painting a room	Applying brush strokes	Making the room look fresh
35. Paying the rent	Maintaining a place to live	Giving the property owner money
36. Caring for houseplants	Watering plants	Making the room look nice
37. Locking a door	Putting a key in the lock	Securing the house
38. Voting	Influencing the election	Marking a voting slip
39. Climbing a tree	Getting a good view	Holding on to branches
40. Filling out a personality test	Answering questions	Revealing what you’re like

	A.	B.
41. Toothbrushing	Preventing tooth decay	Moving a brush around in one's mouth
42. Taking a test	Answering questions	Showing one's knowledge
43. Greeting someone	Saying hello	Showing friendliness
44. Resisting temptation	Saying "no"	Showing moral courage
45. Eating	Getting nutrition	Chewing and swallowing
46. Growing a garden	Planting seeds	Getting fresh vegetables
47. Traveling by car	Following a map	Seeing countryside
48. Having a cavity filled	Protecting your teeth	Going to the dentist
49. Talking to a child	Teaching a child something	Using simple words
50. Pushing a doorbell	Moving a finger	Seeing if someone's home

Section 5

6. Please select your gender
 - d. Female
 - e. Male
 - f. Other

7. Please select your age group
 - f. Younger than 25 years old
 - g. 25 – 34 years old
 - h. 35 – 44 years old
 - i. 45 – 54 years old
 - j. Older than 55 years

8. Please select which of the following describes your total monthly income (when you were still employed)
 - f. Less than R15,000 per month before deductions
 - g. More than R15,000 but less than R25,000 per month before deductions
 - h. More than R25,000 but less than R50,000 per month before deductions
 - i. More than R50,000 but less than R75,000 per month before deductions
 - j. More than R75,000 per month before deductions

9. Please select your highest level of education
 - h. Less than Grade 10
 - i. Grade 10 equivalent
 - j. Grade 12 or equivalent
 - k. Diploma or Certificate
 - l. A bachelor's degree
 - m. An honors' degree
 - n. A masters or doctoral degree

Thank You

Thank you for completing this survey.

Since you have completed this survey you will receive vouchers for 3 online educational courses worth more than two thousand rand, and a 3 Gigs Day-Time and 3 Gigs Night-time data bundle at the cellular provider of your choice.

In order for us to send you the educational vouchers and cellular data, please state your email address and cell phone number below. This information will be kept confidential and will only be used for research purposes and to provide you with the vouchers.

E-Mail Address: _____

Cell Phone Number: _____

If you have any concerns or questions please contact us on ----@bank.co.za.