

Information search and mindsets: Exploring nuances to improve learning in personal initiative action-based entrepreneurial interventions in Africa.

Andre van der Walt^{1,*}

¹ Research and development, Gordon Institute of Business Science (GIBS), Illovo, South Africa, Orcid: 0000-0002-9777-4015

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Abstract

In successful attempts to increase entrepreneurial action across Africa, Frese and colleagues took a psychological approach. They incorporated personal initiative (PI) in action-based entrepreneurial interventions to support a bottom-up approach to entrepreneurial development. To build on these successes and increase the learning in these interventions, they must be made more generic and applied to a wider variety of settings and a more generalised population. The study, therefore, evaluated the inner workings of these interventions to identify nuances on an individual level to increase the learning that happens in these action-based interventions for developing economies. A multiple case study strategy was used to investigate two interventions in the Mopani region of South Africa consisting of female entrepreneurs. Qualitative data were collected and analysed inductively to make sense of the nuances in these interventions. Trustworthiness in the data was established by focusing on quality mechanisms before, during and after data collection and analysis. The findings resulted in three propositions to help extend the Action Regulation Theory (ART) by showing how individual mindsets play an active role in information seeking to impact the action sequence.

¹*Corresponding Author

* E-mail address: andrev@studio.ac.za

1. Introduction

1.1. Background

Poverty and unemployment remain a concern in developing economies (Alvarez & Barney, 2014; Mahadea, 2012). South Africa, in particular, is battling high youth unemployment, reaching critical levels (Hill *et al.*, 2022; StatsSA, 2017). According to Alvarez and Barney (2014) and Peter (2021), entrepreneurship is one possible solution to alleviate some of these social concerns. Alvarez and Barney (2014) suggest that a bottom-up approach should be taken to develop entrepreneurs from within. Frese *et al.* (2016) support this notion and add that traditional top-down approaches, focusing on entrepreneurial ecosystems, fail to stimulate entrepreneurial development sufficiently.

Looking at bottom-up approaches, entrepreneurs, specifically nascent entrepreneurs, must develop an entrepreneurial mindset to make psychological transitions and adapt to changing circumstances (Haynie *et al.*, 2010). As Mitchell *et al.* (2000) point out, entrepreneurs are often not equipped to adjust psychologically to the ever-changing environmental demands. Mitchell and Shepherd (2010) assert they continuously experience conflict between envisioned goals and changing markets. Evidence from attitudinal surveys in the latest Global Entrepreneurship Monitor (GEM) report also states that the mindsets of entrepreneurs have a considerable impact on their success rates, which must be considered when evaluating entrepreneurial output (Hill *et al.*, 2022). Still, minimal emphasis is placed on entrepreneurial mindsets shaped by these psychological demands in Africa.

One effective way to support entrepreneurial development and stimulate this psychological transformation is to experiment with bottom-up approaches to nurture the entrepreneurial mindset from within (Astbury & Leeuw, 2010). Frese and colleagues (Campos *et al.*, 2017; Frese *et al.*, 2016; Gielnik *et al.*, 2015; Glaub *et al.*, 2014; Solomon *et al.*, 2013) have been experimenting with such a psychological approach in action-based training interventions that have shown noteworthy successes in Africa.

However, as Fay and Sonnentag (2010), Gielnik *et al.* (2015), and Rooks *et al.* (2016) suggested, to spread the benefits, make these interventions more generic, and apply them to a wider variety of settings and a more generalised population, a deeper understanding of the nuances at play in these interventions is needed to identify ways to improve the learning that happens within them.

1.2. Problem Statement

Therefore, considering Fay and Sonnentag (2010), Gielnik *et al.* (2015), and Rooks *et al.* (2016) suggestions, the benefits of these interventions are still limited by the assumption we make that similar outcomes can be expected for different individuals in these personal initiative action-based entrepreneurial interventions. Hence, this study aimed to better understand the individual in these

interventions in search of nuances to improve the learning that happens in them. More specifically, the study focuses on how information search in the planning process supports change differently for different cases, which impacts the learning and, consequently, the outcomes (increased entrepreneurial action) of these interventions.

1.3. Research objectives

The study's objectives were to empirically investigate two personal initiative action-based interventions to gain insights into how individuals moved through the sequential steps in these interventions (Glaub *et al.*, 2014). The data were analysed inductively, allowing the data to lead to insights that can positively affect learning in these action-based entrepreneurial interventions (Leitch *et al.*, 2010, p. 71). This study, therefore, visually presents the findings in an analytic framework with three propositions for future research to test.

1.4 Layout of the study

Next, the literature review focuses on the development of personal initiative action-based entrepreneurial interventions across Africa grounded by the Action Regulation Theory (ATR) and how action principles are used to increase entrepreneurial action as an outcome of these interventions. Information search in the action sequence developed by Glaub *et al.* (2014) provides the means to increase the outcomes of these interventions to nurture the entrepreneurial mindset. The methodology then discusses how the study was conducted to attain insights (results and findings) and how it relates to what is already known. Lastly, the paper shows the key contributions and managerial implications, reveals its limitations, and provides recommendations for practice and future research.

2. Literature Review

2.1. Personal initiative action-based interventions across Africa

Entrepreneurial scholars have been pushing boundaries in the last decade with valuable contributions to the literature aimed at understanding entrepreneurial action and how to nurture the entrepreneurial mindset (Autio *et al.*, 2013; Gielnik *et al.*, 2015; Hikkerova *et al.*, 2016; McMullen & Kier, 2016; Van Gelderen *et al.*, 2015; Wood *et al.*, 2021; Wood & McKelvie, 2015). More recently, Campos *et al.* (2017), Frese *et al.* (2016), Gielnik *et al.* (2015), Glaub *et al.* (2014), Solomon *et al.* (2013) and Song and Guo (2020), in attempts to increase entrepreneurial action that nurture the entrepreneurial mindset, infused the concept of personal initiative (self-starting, persistent and action-oriented

behaviour) in a psychological training intervention, which delivered noteworthy successes across Africa.

Frese *et al.* (2007) experimented with proactive planning interventions and have shown that the process of planning and the steps towards reaching a goal can be trained. Continuing and adding to the foundational work of Frese and colleagues, Solomon *et al.* (2013) experimented with personal initiative and action principles to formulate an intervention based on action training. They took an experiential approach to show increases in small business effectiveness in South Africa. The year after, Glaub *et al.* (2014) used a similar training intervention to conduct a field experiment in Uganda. They used personal initiative to translate scientific knowledge into action principles. They applied the facets model, derived action principles from the action regulation theory, and combined it with sequential steps. Figure 1 shows these steps: goal formulation, information seeking, planning, monitoring, and feedback.

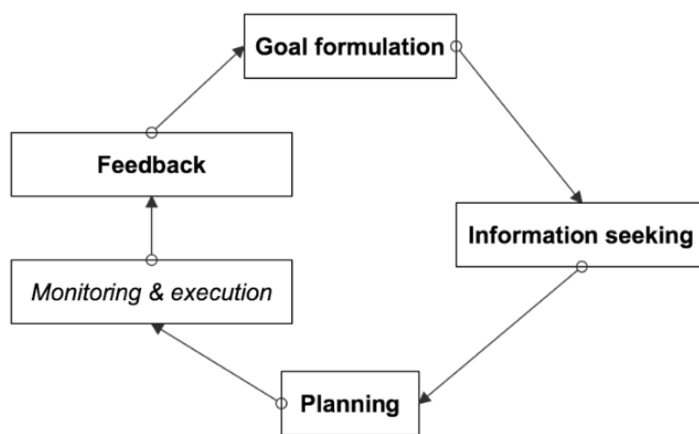


Figure 1: The action sequence

Source: Adapted from Glaub *et al.* (2014)

Goal formulation was based on wishes and values about an opportunity for profit, whereas information seeking involved actively seeking information about whether the opportunity was feasible within the discovered or created environment (Alvarez & Barney, 2014). According to Gielnik *et al.* (2014), based on a study in South Africa using 100 business individuals, “active information search compensates for a lack of experience” (p. 374) in entrepreneurs. Leong (2024) termed it the causative effect of information nested in opportunities, suggesting it could partially explain entrepreneurial action. Still, it implies that the information search process would differ for individuals with varying experience levels. An action plan was then developed, after which action was taken to pursue the opportunity. Feedback became central as it allowed the individual to adapt the action process to positively influence the anticipated outcomes and their goals. Glaub *et al.* (2014), in a study of 100

small business owners in Kampala, Uganda, showed that an increase in personal initiative behaviour positively impacts the performance of small business owners and managers. More importantly, this cemented that personal initiative can be trained through action principles. Solomon *et al.* (2013) and later Frese *et al.* (2016) support this notion with their pre-test/post-test design studies in South Africa and Uganda, which also applied the same sequential steps.

Another intervention in Uganda looked at entrepreneurial student training. This study has confirmed that action regulation mechanisms also play an essential role during students' action-based training and business formation (Gielnik *et al.*, 2015). The study followed a sequential process in which action-regulation factors were hierarchically regulated, meaning that when there was a goal intention and an action plan, action knowledge transformed the intention into action. Frese *et al.* (2016) then conducted a study across five African countries (Kenya, Liberia, Rwanda, Tanzania, and Uganda) using two training interventions. They advocated a bottom-up solution to poverty, centred on self-regulation and active behaviour to support entrepreneurial development. The first personal initiative intervention was focused on existing entrepreneurs in the early stage of venture formation and was similarly grounded by the action-regulation theory (Glaub *et al.*, 2014). They combined the facets of the action-regulatory theory with personal initiative and then developed action principles to guide entrepreneurs through the entrepreneurial action process. However, the second intervention was centred on students to promote the entrepreneurial mindset, converging self and action regulation (Bandura, 2001; Gielnik *et al.*, 2015). Findings in both interventions have shown positive cycles of agentic activity, securing entrepreneurial successes by improving the quality of entrepreneurial cognition in emerging countries (Frese *et al.*, 2016; Glaub *et al.*, 2014).

More recently, a personal initiative intervention conducted in Togo took a longitudinal approach and focused exclusively on 1,500 small business owners in the early stage of venture formation (Campos *et al.*, 2017). The study looked at the impact of personal initiative action-based training on one group of 500 participants, compared to another group of 500 participants exposed to a leading managerial training programme. The other 500 participants were used as a control group. The findings showed remarkable growth over two years for the businesses whose owners received personal initiative action-based training. This group showed a 30% increase in business profits over 11% for those who received managerial training. Increases in employment were also higher for the personal initiative training group.

Still, to understand these action-based interventions better, to make them more generic and spread the benefits to a broader community (Fay & Sonnentag, 2010; Gielnik *et al.*, 2015; Rooks *et al.*, 2016), it is essential to further investigate the inner workings of these interventions from an individual level as suggested by van der Walt and Myres (2024) to gain more insights into the nuances that have the potential to increase the learning in these personal initiative action-based entrepreneurial interventions.

2.2. The Action Regulation Theory (ART)

Acknowledging the theory base that grounds these interventions is crucial to understanding personal initiative action-based interventions conducted across Africa and the successes shown. These interventions were centred around action (doing), the process of planning for action (knowing), and the learning that took place (Glaub *et al.*, 2014). The supporting theory, therefore, needed to explain the link between the planning process and the action itself to enable learning to happen.

The action-regulation theory reverberated from the self-regulation of motivation and action, in which Bandura (1991) suggests that behaviour drives activity regulated by forethought, meaning that people have desires and formulate goals to attain them. People also hold beliefs about the capabilities they possess that are linked to their experience. To reach these goals, an individual must anticipate the future imagined state. Using forethought, individuals thus motivate themselves towards the attainment of the goal. Bandura (1991, p. 282), therefore, states that self-regulation is a multifaceted phenomenon and that the “cognitive regulation of motivation and action relies extensively on an anticipatory, proactive system rather than simply on a negative feedback system”, such as trial and error.

To enhance entrepreneurial action through training, like personal initiative action-based interventions, Action Regulation Theory further suggests that training should positively improve action-regulation factors (Gielnik *et al.*, 2015). These factors were goal intentions, action planning, entrepreneurial self-efficacy, and action knowledge. These were not actions as they were rooted in cognition; however, they were viewed as antecedents to action that must be considered when conducting a training intervention to enhance entrepreneurial activity.

Therefore, considering Bandura’s (1991) notion of forethought and the action-regulation factors proposed by Gielnik *et al.* (2015) as antecedents to action, action-regulation theory suggests a sequential process. Such a process was well illustrated in the study of Glaub *et al.* (2014), which closely mirrored research by Solomon *et al.* (2013) and in a later study by Frese *et al.* (2016). Firstly, action principles were developed, and secondly, these action principles were used in a sequential manner (planning) to support entrepreneurial action.

2.2.1. Action Principles

According to Glaub *et al.* (2014), action principles are “rules of thumb that have a scientific basis and are teachable, understandable, improvable through practice, and adjustable to circumstances” (p. 335). They postulate that action principles link knowing with doing and further assert that when action principles are used in a training environment, they support and boost behavioural change. They argued that it “serves as epistemological tools to get from science to evidence-based action and in

general from cognition to action” (p. 356). Entrepreneurial action, therefore, becomes the driving force for entrepreneurial development.

2.2.2. Entrepreneurial action and information search

The literature includes numerous attempts to understand entrepreneurial action, a “behaviour in response to a judgemental decision under uncertainty about a possible opportunity for profit” (McMullen & Shepherd, 2006, p. 134). Autio *et al.* (2013) have shown that entrepreneurial activity is triggered when response uncertainty is reduced. They used information exposure to show how uncertainty can be reduced during entrepreneurial action, whereas Gielnik *et al.* (2015) looked at temporal dynamics during entrepreneurial activity with research conducted in Africa. They used goal intentions and action planning to show how time influences action regulatory factors during the new venture creation process. They emphasised goal intention as a motivational driver towards entrepreneurial action and action planning to explain how efforts are directed and maintained over time. They believe action planning fills the gap between entrepreneurial intentions and action. Van Gelderen *et al.* (2015) further contributed by focusing on the conditions under which an intention moves to action. They used the Rubicon model of action phases to determine where the lack of action lies (Heckhausen & Gollwitzer, 1987). Their findings suggest that incomplete information during intention formation is responsible for the lack of action. Their results also indicate that the implementation phase provides another opportunity to rectify the shortage of information and therefore emphasises self-discipline and commitment as probable factors to explain entrepreneurial action. This finding is similar to what Frese *et al.* (1996) realised about the differences in performance between East and West German workers in the nineties.

Wood and McKelvie (2015) then started to focus on how an opportunity is evaluated and centred on entrepreneurial cognition, the “knowledge structures that people use to make assessments, judgements, or decisions involving opportunity evaluation, venture creation, and growth” (Mitchell *et al.*, 2002, p. 97). They agree with McMullen and Shepherd (2006) that motivation is necessary for action to sustain persistence with a goal.

In further attempts to understand the path to entrepreneurial action, Hikkerova *et al.* (2016) looked at the action phases and focused on volitional skills within each step (Gollwitzer *et al.*, 1990; Heckhausen & Gollwitzer, 1987, p. 1870). Their hierarchy model of volition suggests that volitional skill, “the capacity of the individual to use his or her psychological functions” (p. 1870), guides an actor’s movement during different action phases. Taking cognisance of volitional skill and self-regulation, they found that personal dispositions influenced self-pursued goals more than economic or environmental determinants. Therefore, this study supports the view that initiative is more robust when it originates from self-efficacy, intrinsic motivation, and positive effect (Hong *et al.*, 2016).

In another study, McMullen and Kier (2016) used self-regulation as a lens to challenge two vital theoretical mechanisms: implementation intentions and regulatory fit. Their argument is based on the notion that when an environment changes, the feasibility of the opportunity can be compromised. In such a situation, goal abandonment would have been the obvious choice; conversely, their research has shown that escalation of commitment overwhelmed actors' cognitive judgement, indicating that actors are often blinded to contextual changes and that cognitively, these actors should adapt their approach but very often do not.

More recently, Wood et al. (2021) revisited entrepreneurial action to better understand temporal dynamics during entrepreneurial development and showed how entrepreneurial time calibrations are essential for action under uncertainty. They revealed that variations in the timing of actions, the time from action to outcome, and the sequencing of action exert an influence on entrepreneurial action, which we cannot ignore.

Therefore, to move entrepreneurial intentions into entrepreneurial action, a shift from cognition to behaviour is needed, turning thinking into doing while considering the context and the timing. And because searching for information to support entrepreneurial action plays a significant role in shifting cognition into behaviour, it is also suggested to influence the entrepreneurial mindset (Haynie & Shepherd, 2007; Haynie et al., 2010; Shepherd et al., 2010).

2.2.3. The entrepreneurial mindset

As has been shown, personal initiative training with an active approach helped to nurture the entrepreneurial mindset (Frese et al., 2016; Glaub et al., 2014), providing a readiness to act, which, according to Campos et al. (2017) was the result of cognitive, affective, and motivational orientation. Naumann (2017) highlighted the importance of understanding the driving forces behind entrepreneurial mindset development. According to him, such awareness was integral to entrepreneurial training.

At first, Haynie and Shepherd (2007) defined the entrepreneurial mindset as the "ability to adapt a thinking process to a changing context and task demands" (p. 9). According to Haynie et al. (2010), this cognitive adaptability was about having the "ability to be dynamic, flexible, and self-regulating in one's cognitions given dynamic and uncertain task environments" (p. 218), pointing to a meta-cognitive process, "thinking about thinking" (p. 218), a learned response which can be enhanced through experience and training. Shepherd et al. (2010) later showed that the entrepreneurial mindset is about cognitive adaptation and how thinking translates into action. They defined the entrepreneurial mindset as "the ability and willingness of individuals to rapidly sense, act, and mobilise in response to a judgmental decision under uncertainty about a possible opportunity for gain" (p. 62). This notion is supported by Kuratko et al. (2021) while investigating the three aspects that drive entrepreneurial

mindset development, suggesting that cognition must be followed by action motivated by emotional attachment.

To continue to support entrepreneurial learning and nurture the entrepreneurial mindset in personal initiative action-based entrepreneurial interventions, the focus should remain on stimulating cognition towards action. However, as Autio *et al.* (2013) pointed out, information exposure can potentially reduce uncertainty, while Van Gelderen *et al.* (2015) have shown that information search helps move intentions towards action. In the action sequenced used in personal initiative entrepreneurial action-based training interventions, information seeking, therefore, becomes an important mechanism to consider during entrepreneurial training interventions to enhance the learning that happens within them.

In summary, evidence from the literature suggests that entrepreneurial action is driven by motivation and knowledge, a belief/desire configuration (McMullen & Shepherd, 2006). Such a configuration is supported by cognitive forethought, which leads to the formation of goal intentions (Bandura, 1991). Seeking information to support the goal intentions, action planning then links the intention with the actions needed to pursue the goal (Autio *et al.*, 2013; Gielnik *et al.*, 2014; Gielnik *et al.*, 2015); however, McMullen and Kier (2016) have shown that the context must not be ignored, as changes in the context could require a different approach. However, an individual's commitment to these goals is higher when the goals are self-pursued (Hong *et al.*, 2016; Van Gelderen *et al.*, 2015). Looking at the entire process and taking stock of what has been done in the past, every part points to self-regulation of action, which proactively and reactively controls "self-motivation...and self-directedness" (Bandura, 1989, pp. 1179-1180), entrenched in a leaning-by-doing approach (Armstrong & Mahmud, 2008; Corbett, 2005; Yamazaki & Kayes, 2004).

Consequently, individuals differ in their beliefs and desires, and what seems important to one may not carry the same weight for another (Bandura, 1991; McMullen & Shepherd, 2006). Therefore, individual mindsets must be acknowledged in a training intervention when trainees move through the sequential steps in the action process (Glaub *et al.*, 2014). When goals are formulated, the sourced information will define the following planning (Autio *et al.*, 2013; Gielnik *et al.*, 2014). Information seeking, therefore, becomes an essential step in the action process with the potential to derail the process, requiring careful consideration from an individual level.

3. Research Methodology

This qualitative exploratory study was based on the realist paradigm, which "holds that there is a real social world but that our knowledge of it is amassed and interpreted (sometimes partially and imperfectly) via our senses and brains, filtered through our language, culture and experience" (Greenhalgh *et al.*, 2015, p. 3). The underlying assumption, therefore, is that people from different

social and cultural settings can respond differently to the same event. It means that individual differences should be recognised and that what works for one individual in a particular context might not work as well for another in the same context (Pawson & Tilley, 2004).

3.1. Research questions

The following research questions guided the study:

- What nuances during information seeking in the action sequence used in personal initiative action-based entrepreneurial interventions can positively influence trainees' learning?
- How do trainees' mindsets influence learning in personal initiative action-based entrepreneurial interventions?

3.2. Research design

Yin (1994) asserts that a case study is an empirical inquiry because a case study “investigates a contemporary phenomenon within a real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). This study deliberately sets out to include context, as contextual conditions directly impact decisions and behaviour in interventions (Dillman, 2013; Kovacs & Corrie, 2016; 2017). Considering the significance of context in an intervention, a case study strategy has a definite advantage over other qualitative designs (Van Burg *et al.*, 2022). Yin (1994) further states that “case studies have a distinctive place in evaluation research” (p. 15). He believes that explanations of “causal links in real-life interventions...links programme implementation with programme effects” (p. 15).

Therefore, an action-based training intervention includes action principles to connect with the trainees' entrepreneurial goal intention first, then discusses positive and negative behaviours about these action principles. Participants learn to apply these action principles through exercises in the interventions and receive feedback from their trainer, peers, and other participants to refine and adapt their approach to better suit the situational demands (Glaub *et al.*, 2014). The intervention's unique sequence is based on Glaub *et al.*'s facets model (2014), which incorporates an action sequence with the three personal initiative facets for planning.

These interventions were conducted over several days in a classroom format at two different locations conducive to learning by doing (Pittaway & Cope, 2007), focussing on 12 females as cases to support the development of female entrepreneurship (Fauzi *et al.*, 2023). Each case in the training intervention signed a consent form 24-48 hours before the intervention commenced to ensure complete and proper consent was given. The consent form broadly sets out what the study was about, the process it followed, and the conditions for participating in the research.

3.2.1 Population and sampling

The two interventions, one in Polokwane and another in Tzaneen, both in the Mopani region of South Africa, were selected for this study. At the time, no other organisations in South Africa used personal initiative action-based interventions. The trainees in the interventions were entrepreneurial individuals from South Africa, defined as reflecting “characteristics that are associated with the discovery, evaluation and exploitation of opportunities to create future goods and services” (Shane & Venkataraman, 2000, p. 218). They were entrepreneurs who had already invested resources to exploit an opportunity in the last three and a half years, situating them in the entrepreneurial phase (Brixy et al., 2012). 12 cases, 12 individual trainees, were purposively selected, seven from the Polokwane and five from the Tzaneen intervention. The selection criteria were based on the outcomes of a personal initiative (PI) questionnaire each trainee had to complete before the intervention. The aim was to collect rich data from these entrepreneurs; therefore, the trainees who scored best on the PI questionnaire were selected.

3.2.2 Data collection

Firstly, all the cases completed a validated personal initiative questionnaire (14 questions) that was in the public domain before and after each intervention, which provided a way to determine whether change occurred in these interventions. Only two cases, Margaret and Princess, showed a one-point increase, while the others remained unchanged. Secondly, observations about cognitive, affective, and motivational significance observed by concrete actions were documented in field notes (Campos *et al.*, 2017). The six-day interventions each for both Tzaneen and Polokwane delivered 36 pages of field notes. Thirdly, face-to-face semi-structured interviews were conducted after each intervention using an interview schedule to guide the interview process and steer the conversation (Kovacs & Corrie, 2017; Leitch *et al.*, 2010). Interview questions were generated from the literature and structured to allow a rich discussion during each interview (see Appendix A), which was conducted at the locations where the interventions were performed to provide a safe space that was private and conducive for discussions (Cope, 2005)—the 12 interviews, which ranged between 30 and 60 minutes delivered 72 pages of transcription data. Lastly, 18 Memos were generated to document the theory development during the entire research process. The data collected mainly focused on how and why participants search for information to use in the planning process and how their mindsets positively or negatively influenced their learning.

3.2.3 Data analysis

The conventional content analysis approach was used, which Hsieh and Shannon (2005) professed as a widely used qualitative technique to interpret text data when the research design described a phenomenon while the literature and theory are minimal. All interviews were audio recorded and

transcribed, turning audio files into text. Additionally, 36 hand-written interview notes were typed and analysed digitally to support the audio files. This way, the non-verbal cues, which could not be captured in audio format, could be used to support the data from the transcriptions. A streamlined codes-to-theory model for qualitative inquiry from Saldaña (2021, p. 13) was used to develop 142 codes from the data as the data was retrieved. These codes were then grouped into 12 code categories to understand how they relate to one another, and eight sub-categories were formed for larger code groups for a deeper level of analysis. After multiple iterations, going back and forth with the data, two significant themes emerged that provided individual-level insights into the information-seeking phase of Glaub *et al.* (2014) action sequence process.

3.2.4 Quality assurance

Leitch *et al.* (2010) view quality as "an umbrella term to encompass notions of truthfulness, integrity, rigour, robustness, and aptness" (p. 71) in their study about quality, validation, and trust in qualitative methodologies. Adopting the notion of quality, this study firstly anticipated any foreseen challenges, secondly, continued to assess the "truthfulness, integrity, rigour, robustness, and aptness" (Leitch *et al.*, 2010, p. 71) of the research process with triangulation, fairness, and authenticity (Hlady-Rispal & Jouison-Laffitte, 2014); and thirdly, reflected continuously on any prejudices and biases during the research process (Leitch *et al.*, 2010). In addition, Leitch *et al.* (2010) view the validation process as occurring in three domains: the research design and data collection, analysis, and interpretation.

Firstly, to anticipate any foreseen challenges, the researcher looked at respondent bias and ways in which the researcher could soften the effects of participants' poor information recall during the data collection domain. The researcher, therefore, conducted the interviews directly after the six-day training intervention. In the interpretation domain, the researcher has drawn from Morse *et al.*'s (2002) verification strategies regarding researcher responsiveness to continue to assess the "truthfulness, integrity, rigour, robustness, and aptness" (Leitch *et al.*, 2010, p. 71) of the research process. In other words, while developing a macro conceptual/theoretical understanding focusing on higher levels of abstraction, the researcher repeatedly attempted to verify interpretations and terms used with existing literature.

In the research design and data collection domain, methodological coherence, case appropriateness, and concurrently collecting and analysing the data have been applied. In the analysis domain, the researcher ensured methodological coherence by collecting and analysing the data coherently and using theoretical thinking, as the analysis was also about making sense of the data (Welch *et al.*, 2011). In the interpretation domain, sense-making continued by applying theoretical thinking; however, in this domain, theoretical thinking became more abstract, moving towards theory development (Pawson & Tilley, 1997; 2004). As these strategies have delivered continued attempts to ensure trustworthiness in the research process, post hoc assessments also made the researcher

attentive to validation issues. For this, the researcher had drawn from the framework of Lincoln and Guba (1985) to look at credibility, transferability, dependability, and confirmability using various techniques.

Lastly, to reflect on one’s prejudices and biases during the research process, the researcher validated his ethical and moral stance early on during the research design. Because the researcher worked with small businesses in communities similar to the cases, the researcher was attuned to their challenges. Then, during analysis and interpretation domains, he substantively validated the process by continuously taking notes in a research memo to show transparency about the research process and how it was experienced (Starks & Brown Trinidad, 2007).

3.3. Ethics

This research was conducted under strict ethical guidelines, which are regulated by the Research Quality Committee (RQC), an ethical board internally positioned in the Gordon Institute of Business Science (GIBS), affiliated with the University of Pretoria (UP) in South Africa. The committee evaluated all study elements to determine their ethical significance and whether the study could continue. The RQC issued a letter giving ethical clearance for this study (see Appendix B).

4. Results and Findings

The observation data, together with the interview data, was analysed and scrutinised. Some initial codes were merged, others were split to end with 142 codes, which were then categorised into 12 categories, of which two categories, mindsets and learning, were subdivided into sub-categories. Two aggregated themes emerged; Table 1 emphasises their openness to change and their mindsets towards learning as the drivers of change in these interventions according to the streamlined codes-to-theory model of Saldaña (2021, p. 13) for qualitative inquiries.

Table 1: Linked codes, code categories, sub-categories and two aggregated themes

Linked codes	Code categories	Sub-categories	Aggregated theme
21	Mindsets	Mindset change (4) Negative mindset (3) Positive mindset (14)	<i>Openness to change</i>
4	Perception		
7	Ownership		
6	Outgroups		
6	Individualistic		
9	Change		
11	Cognitive		
10	Determination		
4	Reflection		

11	Behaviour		
8	Sharing		
45	Learning	Blended learning (6) Learning by doing (6) Learning through instruction (22) Learning through own experience (8) Learning through sharing (3)	<i>Mindset towards learning</i>

Source: Author's compilation guided by the streamlined codes-to-theory model by Saldaña (2021, p. 13)

The findings revealed a reluctance in all the cases to accept new information, the learning content in these interventions, based on a simple trust relationship between the trainees and the trainer. It was clear that the cases weighed the new information against what they knew, their knowledge, and their experience, which significantly influenced their openness to change, their willingness to adjust their established set of attitudes. Not being open to change inhibits learning, which negatively impacts the success of these interventions. Table 2 shows each case's openness to change and their mindset towards learning (their willingness to learn) in more detail.

Table 2: Summary of the cases and the two aggregated themes

Cases	Openness to change	Mindset towards learning
Mary	Cautious and uses her experience and knowledge of her known context to evaluate new information.	Reserve, disengaged, easily distracted, but willing to participate in the training.
Joan	Conservative in making decisions, a look-before-you-leap approach.	Easily distracted and disengaged. She was more focused on what happened outside the training environment.
Emily	Reflect, making sense of things before new information is accepted.	Relied heavily on past experiences in a known context. She resisted new knowledge when it confused or challenged her worldviews.
Beatrix	She considers alternatives if it is linked to what she knows and understands already.	She is sceptical of what she believes, although she is more open to change if she is convinced of the new information's legitimacy.
Bettie	Stuck in her ways, seeking new information that supports her experience and what she already knows.	She prefers to seek information and learn from it if it makes sense in her everyday life. It must make practical sense in her known context.
Ana	Confident and outspoken when the discussion falls within her area of expertise. Tent to seek information that supports her knowledge and experience.	Relying on reflection, she is cautious and relies on familiar information to make calculated decisions.
Clelia	Cautious about making decisions. She uses her knowledge and what she knows to stay in control, rejecting information that challenges her worldview. Thus, she comes across as submissive.	She relies on reflection, is cautious, and uses familiar information to make calculated decisions.
Margaret	Cautious about making decisions. She uses her	She is reserved and quiet. She needs

	knowledge and what she knows to stay in control, rejecting information that challenges her worldview. Scepticism could be present when new information is shared.	considerable information to be convinced of its benefits. She judges new information using her known context.
Regina	Cautious about making decisions. She uses her knowledge and what she knows to stay in control, rejecting information that challenges her worldview.	Rely on reflection, are cautious and rely on familiar information to make sense of new information. She seemed forgetful that could point to noninterest.
Princess	Cautious about making decisions. She resists new information that challenges her worldview. However, scepticism could be present when new information is shared.	Curious and open to change if the new information is convincing.
Precious	She is cautious and prefers to make decisions based on her known facts. Therefore, she seeks information that supports her reality.	She is willing to learn if the information mirrors her known context.
Beauty	Quiet and reserved, slow to make decisions. She draws from her knowledge and experience, which also influence the type of information she seeks.	She could not understand simple concepts in training, and they were difficult to recall, making learning difficult. She evaluates new information using her existing worldview.

Source: Authors' compilation

4.1 Theme 1: Openness to change

Regarding the relationship between each case and their businesses, behaviours were influenced and changed due to cognitive dissonance, strong determination due to past injustices, and recurring reflections about their current community dynamics and business circumstances. Each individual's mindset is vital in how the cases perceive stimuli in these learning interventions. This impacts their openness to change, which significantly affects their learning.

Considering cognitive dissonance, Clelia, in the intervention, learnt that planning happens in steps and that specific initial steps such as saving must happen first to secure funds to materialise goals, *"you should plan your things according to phases. If I want to build a room, I must first save money"* (Clelia, Polokwane intervention). She also acknowledged, *"We do not check the phases; we just listen because they are training us"* (Clelia, Polokwane intervention), which indicates Clelia has not yet accepted or internalised the new information shared.

In view of recurring reflections about their current community dynamics and business circumstances, Princess seemed cautious about getting wrong information from other business owners that might have hidden agendas when giving fake news, *"it is important that you do not seek information from anybody but a fellow business owner; other people can give you the wrong information"* (Princess, Polokwane intervention). Although a sense of community links to trust and camaraderie, distrust and individual opportunism were enduring themes in these communities.

Considering strong determination due to past injustices, Margaret stated, *"I started selling coats after getting married because I had to stay home, I could not go work for the white man again, then I*

started to buy things and sell them” (Margaret, Polokwane intervention). Mary also proudly claims, “I never worked for a white man” (Margaret, Polokwane intervention). In both these cases, it is evident that the past still significantly influences their thinking, which impacts their openness to change.

Looking at the first research question, taking a holistic view of all the data for the 12 cases, participants' openness to change is crucial in receiving, accepting, and internalising new information. Therefore, change relies on what they already know and the beliefs they hold close. Their mindset influences whether the new information complements or contradicts their views and beliefs.

4.2 Theme 2: Mindset towards learning

Since experiential learning in these interventions focuses on a learning-by-doing approach, the trainees were allowed to relate the new information to their worldviews through self-rating questionnaires before and after sections in the learning material, as shown in Figure 2.

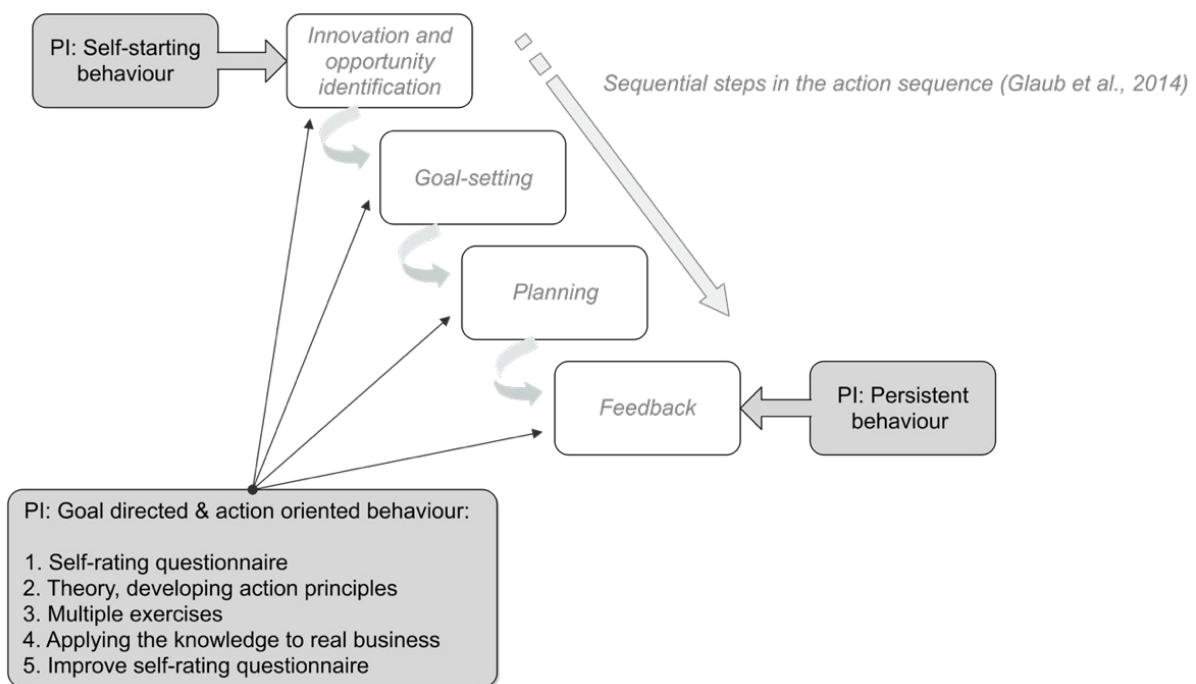


Figure 2: The training intervention sequence, structure and focus

Source: Authors' construction

Although these self-rating questionnaires are meant to help cases reflect on their own worldviews and compare them to the newly shared information, from the interviews, it was clear that some cases were reluctant to share their world views or voice their disagreement with the new information shared. Because their worldviews are challenged with further details in these interventions, some showed a

lack of interest or resisted the change. When Mary was asked about the activities in the intervention and which she enjoyed most, she replied, *“We enjoyed a few activities, but I do not remember some of those activities”* (Mary, Tzaneen intervention). Emily replied, *“My debts motivate me because I have to pay my debts every month. Otherwise, I would not be doing anything”* (Emily, Tzaneen intervention) when she was asked what keeps her motivated to pursue her goals in business. Regina, for instance, answered, *“This one is confusing me”* (Emily, Tzaneen intervention) when the interviewer asked about feedback in training. Regina claimed she could not remember the activity during the feedback session in the training.

Likewise, in the interview with Beauty, when she was asked about specific learnings in the training, she responded, *“I have forgotten about others; I only remember important stuff”* (Beauty, Polokwane intervention). She also replied, *“I do not remember”* (Beauty, Polokwane intervention) when she was asked about the business plan section in training, and *“Money motivates me, money and nothing else”* (Beauty, Polokwane intervention) when asked about what motivates her to continue her business. In addition, Beauty even replied, *“I do not remember. With me, they get in through one ear and get out through the other”* (Beauty, Polokwane intervention) when asked how the training helped her develop action steps in her business.

Therefore, considering the second research question, taking a holistic view of all the data for the 12 cases, new information must be introduced systematically for change to be sustainable in a learning environment. Although different cases have shown interest in specific topics in the intervention, there was a clear link between the topics of interest and a problem they are facing in their current businesses. Thus, it suggests that if new information shared has a link to what is already known, it would be received positively, making acceptance and internalisation more likely to support a positive mindset towards learning.

4.3 Discussion

Regarding research question one and theme one, the findings at a higher level of abstraction agree with the literature about entrepreneurial action, a behavioural response preceded by cognitive forethought about an opportunity for profit (Autio *et al.*, 2013; Gielnik *et al.*, 2015; Hikkerova *et al.*, 2016; McMullen & Kier, 2016; Van Gelderen *et al.*, 2015; Wood & McKelvie, 2015). It, therefore, becomes imperative to generate the correct stimulus in entrepreneurial interventions to allow the right kind of actions to manifest in the future that is driven by a belief/desire configuration supported by motivating factors and prior knowledge (Bandura, 1991; McMullen & Shepherd, 2006). Although entrepreneurial action starts with an intention, planning is required to bridge the gap between these concepts (Gielnik *et al.*, 2015; Van Gelderen *et al.*, 2015). Planning becomes the driving force for sustainable entrepreneurial action (Campos *et al.*, 2017; Frese *et al.*, 2007; Frese *et al.*, 2016; Gielnik *et al.*, 2015; Glaub *et al.*, 2014; Solomon *et al.*, 2013); however, motivation and commitment is also a

necessary condition for action to sustain the persistence with a goal and to self-regulate action while taking cognisance of the context (Bandura, 1989; McMullen & Kier, 2016; McMullen & Shepherd, 2006; Mitchell *et al.*, 2002; Van Gelderen *et al.*, 2015; Wood & McKelvie, 2015).

For research question two and theme two, the findings suggest that commitment could be attained if the individuals in the intervention are convinced of the value of the new knowledge shared in these interventions. Commitment, therefore, depends on buy-in, which only occurs if the value of the latest information is trusted and understood within the context of their tightly held beliefs shaped by their experience (Frese *et al.*, 1996; Van Gelderen *et al.*, 2015).

It, therefore, emphasises understanding the antecedents to these tightly held beliefs first to find ways to eradicate wrong assumptions and create an openness to change to support a more favourable mindset towards learning, leading to a more probable commitment to action (Van Gelderen *et al.*, 2015). Looking at the action sequence specifically from an individual level (van der Walt & Myres, 2024), more attention should be given to information search (Autio *et al.*, 2013; Gielnik *et al.*, 2014; Glaub *et al.*, 2014; Leong, 2024; Van Gelderen *et al.*, 2015; Wood & McKelvie, 2015). Individuals have different backgrounds, warranting further understanding of the reasons behind the initial search for information, the type of information they source, and how it is used. Because planning, the next step in the action sequence, is moulded by the sourced information, it influences the direction of the remaining elements in the action sequence. Moreover, because these action-based interventions rely on the action sequence, as Figure 1 (Glaub *et al.*, 2014) has shown, information search holds significant potential to positively or negatively affect the learnings in these interventions.

5. Managerial Implications

The study contributed to the Action Regulation Theory (ART) by showing that when an individual level of analysis is considered, the action process for different individuals could potentially differ. The process of action sequence focuses on goal formulation, information seeking, planning, monitoring and execution, and feedback, which filters back into goal formulation. According to the findings, individual differences play a role in the “information seeking” phase regarding why it is sourced, the type of information sourced, and how it is used, which impacts the planning phase differently, adding to the theory.

If planning forms the significant link between an entrepreneurial intention and the following behaviour, it is imperative to ensure that planning and goal formulation are monitored individually during these interventions. Also, different motivational aspects for the intended outcomes must be acknowledged during goal formulation. Commitment can only be attained if the individuals in the intervention are convinced of the value of the new knowledge shared and understand how it links to the motivational aspects of these intended outcomes and their goals. Buy-in is needed, which only

occurs if the value of the latest information is trusted and understood within the context of their tightly held beliefs. Therefore, the learning in these interventions can be increased if the trainees' commitment is attained first.

6. Conclusions, Limitations and Future Research

6.1 Key findings

Considering research question one, looking at the action process initially developed by Glaub *et al.* (2014), a closer look on an individual level is needed to understand the impact the “information seeking” phase in the process could have on planning, the next step in the action sequence (see Figure 3).

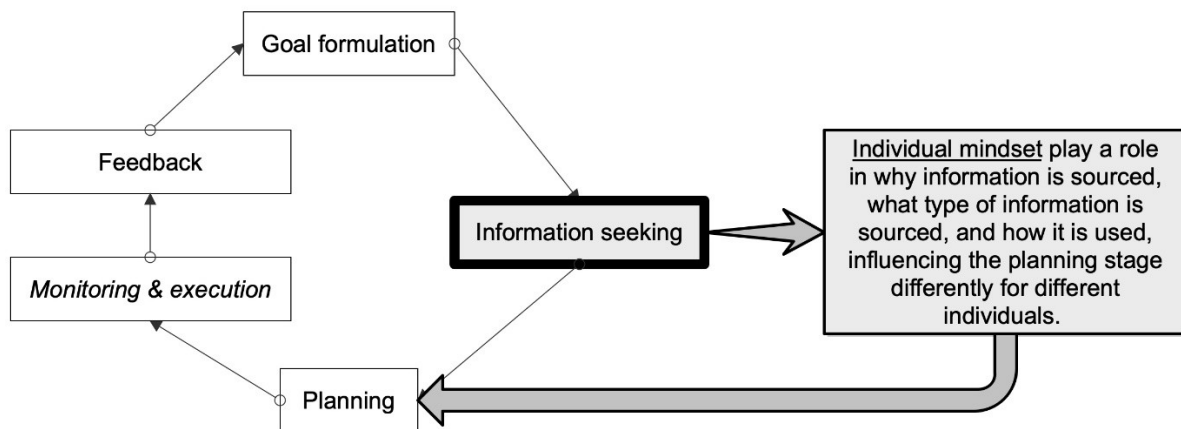


Figure 3: The adapted action process

Source: Authors' construction guided by the action sequence by Glaub *et al.* (2014)

From the findings, it is clear that individuality in context matters, which has been highlighted as an essential concept in qualitative inquiries (Van Burg *et al.*, 2022; van der Walt & Myres, 2024). The findings show that individuals are reliant on what they know. Their personal and business-related experiences develop their worldviews, which affects how they accept and experience new knowledge. It also forms the foundation for judging information regarding why, what, and how it is sourced. When individuals enter a training intervention with pre-conceived ideas and beliefs based on their worldviews, the reasons behind their initial search for information (the why), the type of information they source (the what), and how the information is used (the how) could be different for different individuals. It then means that individuals will move through the action process differently depending on their initial intentions to source information and the following planning.

Action Regulation Theory (ART) assumes active behaviour and feedback are prerequisites for learning. According to Glaub *et al.* (2014), abstract knowledge does not directly translate into action;

it must first become operational. However, for action to become operational, it must go through a sequential hierarchical process. They posit that “cognitions regulate actions only when prior connections between these levels of regulation have been established” (p. 357), suggesting a learning-by-doing approach using action principles and repetition to establish such connections.

Accordingly, following a learning-by-doing approach (Pittaway & Cope, 2007), the assumption is that all trainees in an intervention have the same starting point, which is not the case. As knowledge builds on knowledge (Armstrong & Mahmud, 2008; Corbett, 2005; Yamazaki & Kayes, 2004), having different capacities to learn with different personal circumstances and levels of experience, new knowledge will be integrated differently, following a separate process, for different individuals.

Therefore, although the findings support the literature on Action Regulation Theory, they also add valuable insights on an individual level of analysis. Based on this study, conducting more individual-level investigations to understand better change and the learnings in training interventions becomes imperative. Hence, individuals focus on different types of information, have various reasons for sourcing information shaped by experience and personal circumstances, and use information differently after being sourced, which led to proposition one.

Proposition 1: *The reasons behind sourcing information (the why), the type of information sourced (the what), and how the information sourced is used (the how) are different for different individuals, which impacts planning for everyone in the action sequence differently.*

Considering research question two, the findings also made clear that individual participants in these personal initiative action-based entrepreneurial training interventions were not all open to change, which could have impacted the learning in these interventions, leading to proposition two.

Proposition 2: *The extent to which individual participants are open to change in personal initiative action-based entrepreneurial interventions influences their willingness to learn.*

Furthermore, because individuals learn from experience, their worldviews influence how they receive, accept, and internalise new information, leading to proposition three.

Proposition 3: *Individual participants' mindsets in personal initiative action-based entrepreneurial interventions positively or negatively affect their willingness to cognitively engage with the learning material.*

6.2 Limitations

Considering that the findings of this study depended on the participants' cognitive ability to recall their experience and, secondly, on how they made sense of the learning and change (Weick *et al.*, 2005), it posed a limitation. By following the suggestions of Leitch *et al.* (2010) to assess the “truthfulness, integrity, rigour, robustness, and aptness” (p. 71) of the research process during all three

domains, the design and data collection, analysis, and interpretation, the quality was enhanced which potentially lessened the effects of this limitation.

6.3 Conclusion and Recommendations

Considering all three propositions, careful consideration must be given to the action sequence in action-based interventions. When the trainees must source information, the trainer must ensure each trainee, on an individual level, understands the reasons for sourcing information (the why), the type of information they need to source (the what), and how they will use the information afterwards (the how). The trainers must be reminded of the importance of this step and how, if not attended correctly, it could negatively impact the action steps that follow, like planning, for the individual trainees.

Learning happens differently for different individuals, and trainers should be cognisant that a trainee's openness to change could influence their willingness to learn. Proper introductions before each intervention commences and continuous reflection sessions during the intervention could allow the trainers to gauge the mindsets of these individual trainees. In this way, trainers could identify individuals at risk of becoming cognitively disengaged in these sessions early on.

Although the trainer's role was not the focal point of the study, the findings revealed insights about the trainers' impact on these interventions. The trainers act as facilitators, creating favourable environments for learning and change and stimulating an openness to change for these trainees. The role of the trainer and their impact in these interventions should become the focal point of inquiry in future studies to unpack their role and how it influences the learning environment and, therefore, the context of these interventions.

Future research could also test these three propositions to continue research to fine-tune the inner workings of personal initiative action-based entrepreneurial interventions, which have shown to be a plausible bottom-up approach to poverty alleviation (Alvarez & Barney, 2014; Frese *et al.*, 2016). The recommendations allow adjustments to our current thinking about action-based entrepreneurial interventions and how minor adjustments can potentially increase learning, influencing entrepreneurial action positively to continue nurturing the entrepreneurial mindset (Fay & Sonnentag, 2010; Gielnik *et al.*, 2015; Haynie *et al.*, 2010; Rooks *et al.*, 2016).

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Appendix A: Interview Schedule

1. What have you learned in these couple of days that you did not know before?
2. What methods of learning (activities) in the intervention were you more comfortable with?
3. How will you use what you have learned in the intervention to pursue your business goal?
4. How did the intervention process help you to formulate a goal or goals for your venture?
5. How confident were you about reaching your venture goals before the programme, and how do you feel about it now?
6. What, in your opinion, is the driving force behind you wanting to reach these goals for your venture?
7. What about seeking information regarding your goal was most impactful to you?
8. During the session on planning, what did you find most useful?
9. How do you continue towards your business goals when you are confronted with obstacles that slow your business growth?
10. How do you keep yourself motivated in your business pursuits?
11. How did you experience the section on feedback? In other words, what did it mean to you?
12. What in the intervention has specifically helped you increase your knowledge base regarding taking action in your business?

Appendix B: Ethics approval letter



28 November 2018

Dear André van der Walt

ETHICS APPLICATION: André van der Walt (Student Number 15391443)

Research Title: (Understanding the individual in Personal Initiative Action-Based Entrepreneurial Interventions: a Realist Evaluation)

On behalf of the Gordon Institute of Business Science Doctoral Research Committee, I am pleased to confirm that your application for ethical clearance, for the above research has been approved on the basis described in the application form and supporting documentation.

We wish you success in your studies.

Yours Sincerely

A handwritten signature in black ink, appearing to read 'Gavin Price', written over a horizontal line.

Professor Gavin Price

Doctoral Research Ethics Committee Chairperson