

# Understanding the individual in personal initiative action-based entrepreneurial interventions

**Authors:**

André G. van der Walt<sup>1</sup>   
Kerrin Myres<sup>1</sup> 

**Affiliation:**

<sup>1</sup>Department of Doctoral Research, Gordon Institute of Business Science, University of Pretoria, Johannesburg, South Africa

**Corresponding author:**

André van der Walt,  
vdwalta9@gmail.com

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**Background:** Entrepreneurship is an important driving force for economic development in emerging economies, traditionally driven by ineffective top-down approaches. A recent bottom-up approach incorporating personal initiative (PI) into action-based interventions offered a more sustainable way to stimulate African entrepreneurial growth.

**Aim:** The study is interested in how these interventions work during training, for whom and in what way. Therefore, a deduced programme theory was constructed from literature and was empirically evaluated.

**Setting:** The investigation focussed on rural communities in the Mopani region of South Africa near Polokwane and Tzaneen in Limpopo province. Two large central hubs characterise these areas, with several rural villages scattered around them.

**Methods:** A multiple case study strategy cast in a realist evaluation design was used to investigate two interventions consisting of female entrepreneurs to produce qualitative data that were analysed inductively to make sense of change and the learning in these interventions. Entrepreneurs were selected through case selection, and trustworthiness in the data was established by focussing on post hoc and verification strategies during and after the research process.

**Results:** The findings produced valuable insights visually presented in analytical frameworks that show adjustments to the PI deduced programme theory.

**Conclusion:** On an individual level, it showed how unique attitudes guide action-formation, situational and transformational mechanisms that support outcome patterns in the context of these interventions.

**Contribution:** Three propositions were developed to be tested in future studies to continue discussing entrepreneurs and their learning behaviours to increase entrepreneurial action and nurture the entrepreneurial mindset.

**Keywords:** personal initiative interventions; action regulation theory; deduced programme theory; entrepreneurial action; entrepreneurial mindset; experiential learning; realist evaluation.

## Introduction

Entrepreneurship is an important driving force for economic development, especially in emerging economies that heavily rely on small and medium enterprises (Apostu & Gigauri 2023; Hill et al. 2022; Van Stel, Storey & Thurik 2007). It, therefore, becomes essential to stimulate entrepreneurial development in these economies to enhance job creation and economic growth, driven mainly by ineffective top-down approaches focussing primarily on developing the entrepreneurial ecosystem (Frese, Gielnik & Mensmann 2016; Spigel 2017). More recently, a bottom-up individual-level approach was introduced, offering a more sustainable way to stimulate entrepreneurial development (Frese et al. 2016; Mensmann & Frese 2019).

Frese et al. initiated training interventions across Africa, taking a psychological approach to increase entrepreneurial action (Campos et al. 2017; Frese et al. 2016; Gielnik et al. 2015; Glaub et al. 2014; Solomon et al. 2013). They incorporated the concept of personal initiative (PI) in action-based interventions, which have been shown to positively impact entrepreneurial performance, increasing business profits, employment and business growth (Haynie & Shepherd 2007; Haynie et al. 2010; Kuratko, Fisher & Audretsch 2021). It was suggested by Frese et al. (2016) that such a bottom-up approach could be one solution to alleviating poverty in Africa. How exactly these interventions work remains unclear.

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Therefore, to spread the benefits of these interventions to a wider variety of settings, and a more generalised population, as suggested by Fay and Sonnentag (2010), Gielnik et al. (2015) and Rooks, Sserwanga and Frese (2016), the researcher constructed a deduced programme theory from the literature using a realist evaluation approach. Data from an empirical investigation of two PI training interventions were used to evaluate the theory. In this way, the underlying mechanisms that support the outcomes in context could be made known to understand 'what works for whom, in what circumstances, in what respects and how', as Pawson et al. (2005:21) have argued.

## Literature review

### Personal initiative interventions across Africa

Frese et al. (2007) were the first scholars to experiment with proactive planning interventions in three African countries (Namibia, South Africa, and Zimbabwe). They have shown that mental simulations, focussing on the process of planning and the steps towards reaching a goal, act as partial mediators between motivational and cognitive resources. In addition, they, and other scholars, have shown that the process of planning and the steps towards reaching a goal can be trained (Campos et al. 2017; Frese et al. 2016; Gielnik et al. 2015; Glaub et al. 2014; Solomon et al. 2013). They used PI training to: (1) develop new routines with newly required behaviours through action principles, (2) learn by doing, (3) motivate by experience, (4) place emphasis on feedback for learning and (5) support the transfer of capabilities. Their findings have shown increases in small business effectiveness. Goal formulation was based on an opportunity for profit, whereas information seeking had to do with actively seeking information about whether the opportunity was feasible within the environment that was discovered or created (Alvarez & Barney 2014). An action plan was then developed, after which action was taken to pursue the opportunity. Feedback then became central to the action process, as it allowed the action process to be adapted according to feedback, which improved the outcome.

### Grounding personal initiative interventions

In this study, the action-regulation theory (ART) was applied, which assumed that active behaviour and feedback were prerequisites for learning. The action-regulation theory resonated from self-regulation to produce a hierarchical-sequential structured model with action steps (Bandura 1989). Bandura (1989) asserted that 'goals operate through self-referent processes...providing links between goals and action'. Thus, self-regulation is about regulating what an individual chooses among alternatives and how they go about it. Bandura (1989) furthermore indicated that, for cognition to convert into action, it must go through a 'conception-matching process' involving cognitive guidance and 'habitual ways of doing things' (pp. 1180–1181).

According to Glaub et al. (2014), the ART was developed initially to explain the knowing-doing gap and regulate the activity process. They posited that abstract knowledge does not directly translate into action; it first needs to become operational. They used ART to argue that for an action to become operational, it must go through a sequential hierarchical process. According to Frese and Gielnik (2014), this means that one needs to consider the sequence (how actions unfold), the structure (the level of regulation) and the focus (the task at hand).

In considering a sequential hierarchical process, Glaub et al. (2014) further showed that higher levels of activity were regulated through awareness and self-reflection. In contrast, lower levels, such as operational acts, were regulated without awareness. Therefore, when higher levels of abstract cognitions did not have regulatory power, a gap formed, directly resulting from a lack of support from lower operational control. They, therefore, posit that 'cognitions regulate actions only when prior connections between these levels of regulation have been established' (Glaub et al. 2014:357). They then suggest a learning-by-doing approach using action principles and repetition to establish such connections. What is still not yet known is how prior connections are formed on an individual level. Considering individual differences in cases' worldviews and attitudes, prior connections would differ for different individuals (Fisher, Maritz & Lobo 2016).

### The process of personal initiative in action-based interventions

Frese et al. (2016) demonstrated that PI needs to be enhanced to increase skill and motivation to boost start-up rates. In this way, as shown by Frese et al. (1997) and Frese and Zapf (1994) before, self-management behaviour can help entrepreneurs to self-start, be goal and action-oriented and persist in their pursuits. They advocate this as a bottom-up approach to poverty alleviation, which emphasises action regulation and action principles to develop new pathways to support new habit formation for entrepreneurial development.

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, together with Frese et al. (2016), 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 entrepreneurial action. Still, entrepreneurial action depends on prior connections that might differ depending on an individual's understanding of these action principles in their known context. Although it is 'teachable, understandable, improvable through practice, and adjustable to circumstances' (Glaub et al. 2014:335), everyone's understanding of it, considering their worldview and attitude, could potentially guide them to form different pathways in support of new habit formation for entrepreneurial development.

McMullen and Shepherd (2006) posit that entrepreneurial action starts with an entrepreneurial idea. The idea then develops into an intention, 'a representation of a future course of action to be performed' (Bandura 2001:6), through a belief and desire configuration supported by motivating factors and prior knowledge. Esfandiar et al. (2019) asserts that entrepreneurial goal intentions are directly and indirectly related to desirability, self-efficacy, feasibility, opportunity, attitude and collective efficacy, although individuals often downplay critical factors such as feasibility and opportunity when acting on intentions. An evaluation process, therefore, follows in which the opportunity is rationalised by applying cognitive mechanisms. The outcomes of such an evaluation process determine whether the intention progresses into behaviour, the decision to act (McMullen & Shepherd 2006). Again, on an individual level, it must be emphasised that forming a belief and desire configuration supported by motivational factors and prior knowledge cannot be the same for individuals. Therefore, their decision to act would differ. Although the training intervention aims to increase entrepreneurial action in general, understanding the participants individually would offer insights to make these interventions more efficient to increase entrepreneurial activity even more.

Literature has, therefore, demonstrated that PI is a suitable construct, with planning at its core, to support proactive behaviour in action-based interventions (Hong et al. 2016). It also has shown that action principles can be applied with a learning-by-doing approach to formulating new, more conducive pathways to nurture the entrepreneurial mindset (Shepherd, McMullen & Jennings 2007; Shepherd, Patzelt & Haynie 2010). However, to increase entrepreneurial action even more, emphasis must be placed on individual nuances to build on the successes already shown in past interventions.

## Realist evaluation approach

According to Pawson and Tilley (2004), a realist evaluation does not ask, "What works?" or, "Does this programme work?" but asks instead, "What works for whom in what circumstances and in what respects, and how?" (p. 22). They believe that research about evaluating programmes seeks to understand how 'interventions bring about change' (p. 3).

As shown by Kovacs and Corrie (2016), a 'realist evaluation is informed by four key suppositions' (pp. 60–61), which were identified by Pawson and Tilley (2004) to be that: interventions 'are "theories", they are "embedded", they are "active" and they are part of "open systems"' (p. 3). 'Theories provide an understanding of what gives rise to the "changes in patterns of behaviour, events or conditions" (p. 3) that produce the outcomes in interventions, whereas "embedded" refers to social reality, meaning that a realist paradigm recognises multiple realities, and that "different layers of social reality" (p. 4) are at play during interventions. In attempts to alter thinking and therefore change behaviour patterns, interventions require individuals to engage in the process actively. At the same time, Pawson and Tilley (2004) hold the belief that "externalities always impact on the delivery of a programme" (p. 5), supporting the notion that interventions are part of open systems'. Pawson and Tilley (1997) indicate that 'programmes work (have successful "outcomes") only in so far as they introduce appropriate ideas and opportunities ("mechanisms") to groups in the appropriate social and cultural conditions ("contexts")' (p. 57).

## The deduced programme theory using a realist evaluation approach

Figure 1 shows the framework for the deduced programme theory constructed from what is known in the literature.

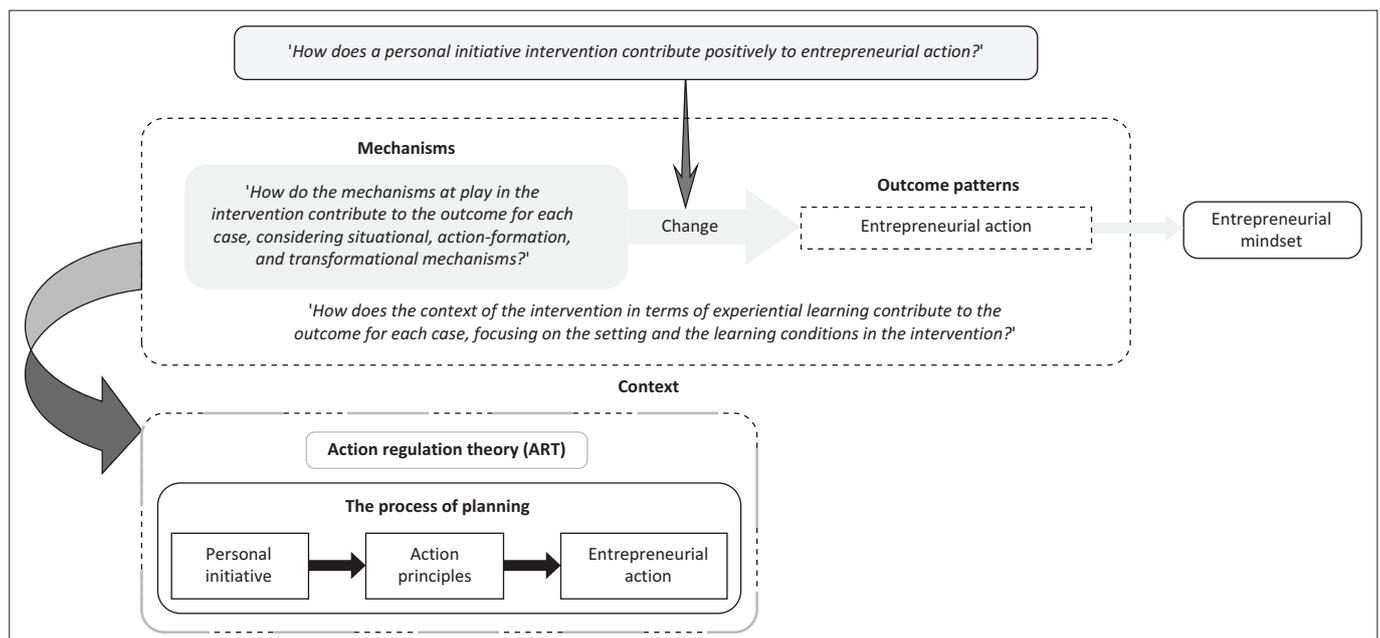


FIGURE 1: The framework for the deduced programme theory.

### The programme context

Pawson and Tilley (2004) describe context as 'those features of the conditions in which programmes are introduced' (p. 7). They believe that 'realism utilises contextual thinking to address the issues of "for whom" and "in what circumstances" a programme will work' (p. 7). Considering the immediate setting for learning, the learning space, as Kolb and Kolb (2005) term it, constitutes a space where 'individual disposition and characteristics of the learning environment' (p. 200) interact to produce a 'microsystem' (p. 199). Pittaway and Cope (2007) define entrepreneurial learning as 'learning that occurs during the new venture creation process' (p. 212). 'They learn from experience. They learn by doing. They learn from what works and, more importantly, from what doesn't work' (Smilor 1997:344). It means that learning happens when entrepreneurs experience the venture creation process, which differs for individuals. Experiential learning, defined by Kolb and Kolb (2005) as 'the process whereby knowledge is created through the transformation of experience' (p. 194), therefore, becomes a critical element for change to take place in these interventions and needs to be understood from an individual level that is not the case in these interventions.

### The programme mechanisms

According to Pawson and Tilley (1997), 'mechanisms are underlying entities, processes, or structures which operate in particular contexts to generate outcomes of interest' (p. 368). Action-formation mechanisms, according to Astbury and Leeuw (2010), look at 'how individual choices and actions are influenced by a specific combination of desires, beliefs, and opportunities' (p. 371), grouped as micro-to-micro level mechanisms. Situational mechanisms, grouped as macro-to-micro level mechanisms, show 'how specific social situations or events shape the beliefs, desires and opportunities of individual actors' (p. 371). Transformational mechanisms show 'how a number of individuals, through their actions and interactions, generate macro-level outcomes' (p. 371), grouped as micro-to-macro-level mechanisms. Therefore, the programme outcomes depend on the mechanisms in a particular context. No distinctions are made in these training interventions according to these mechanisms, which require further investigation into how cases respond differently to different mechanisms triggered by their worldviews.

### The programme outcome patterns

Outcome patterns start to emerge, which Pawson and Tilley (2004) define as 'the intended and unintended consequences of programmes, resulting from the activation of different mechanisms in different contexts' (p. 8). Although the focus of this inquiry is not to investigate the numerous successes regarding the programme outcome patterns (Campos et al. 2017; Frese et al. 2016; Gielnik et al. 2015; Glaub et al. 2014; Solomon et al. 2013); it still must be considered to understand how learning and change contribute to entrepreneurial action. Taking an individual approach, this inquiry focusses on the nuances in the training process to know how the outcome patterns can be increased.

### The context-mechanism-outcome pattern configuration

Looking at the context-mechanism-outcome pattern configuration (CMOC), as Pawson and Tilley (2004) refer to them, indicates 'how programmes activate mechanisms amongst whom and in what conditions, to bring about alterations in behavioural or event or state regularities' (p. 9). They refer to CMOCs as propositions that predict and explain the 'mechanism-variations', together with the 'context-variations' to produce the patterns of 'outcome-variations' (p. 9); therefore, focussing on the mechanisms and context, this inquiry brings us one step closer in understanding the CMOC of these interventions that support the outcome patterns. From an individual level, these insights are needed to sustain the intervention and increase the outcome patterns (Blamey & Mackenzie 2007).

## Aims and objective

Firstly, the objective was to construct a deduced programme theory from the literature (Campos et al. 2017; Frese et al. 2016; Gielnik et al. 2015; Glaub et al. 2014; Solomon et al. 2013). Secondly, an empirical investigation was conducted in which two PI interventions were evaluated to confirm and refine the deduced theory. Thirdly, the data were analysed using relevant, appropriate and quality instruments to establish 'truthfulness, integrity, rigour, robustness, and aptness' (Leitch, Hill & Harrison 2010:71) in the research to understand better how these interventions deliver the outcome patterns in a specific programme context to nurture the entrepreneurial mindset (Astbury & Leeuw 2010). Lastly, the programme theory in analytic frameworks, supported by the data, which also produced propositions for future research to test are visually presented. In this way, the programme theory provides a foundation for future programme development to spread the benefits of these interventions to a wider variety of settings and a more generalised population, as Fay and Sonnentag (2010), Gielnik et al. (2015) and Rooks et al. (2016) suggest.

### Research question 1

'How does the context of the intervention in terms of experiential learning contribute to the outcome for each case, focussing on the setting and the learning conditions in the intervention?'

### Research question 2

'How do the mechanisms at play in the intervention contribute to the outcome for each case, considering situational, action-formation and transformational mechanisms?'

### Research question 3

'How does a personal initiative intervention contribute positively to entrepreneurial action?'

## Research methods and design

### Research design

A multiple-case study strategy cast in a realist evaluation approach was used (Yin 1994). Because contextual conditions directly impact decisions and behaviour in an intervention (Zahra 2007), a case study strategy had a definite advantage over other designs (Dillman 2013; Kovacs & Corrie 2016, 2017). And since the research questions suggest an evaluative research approach, seeking meaning in the data by identifying the underlying mechanisms of the programme in context to understand the outcomes, this inquiry emphasised the CMOC of the programme (Pawson & Tilley 2004; Pawson et al. 2005; Sridharan & Nakaima 2011). Therefore, to explain and fully understand interventions, the evaluator must focus on the key concepts relevant in a realist evaluation: the mechanisms, programme context, outcome pattern and then the context-mechanism-outcome pattern configuration (Pawson & Tilley 2004).

Cases were selected from two sets of interventions, one in Tzaneen and the other from a Polokwane intervention that lasted 6 days, each spread over 3 weeks. Twelve entrepreneurs were selected who invested resources to exploit an opportunity in the last three and a half years, situating them in the entrepreneurial phase (Brixy, Sternberg & Stüber 2012). According to Brixy et al. (2012), entrepreneurs first go through a discovery phase to become committed to start a venture, an exploitation process follows to the point where the entrepreneur starts the venture; thereafter, they operate the venture and exploit the opportunity that positions them in the entrepreneurial phase.

### Data collection

Observations during the intervention process were documented each day of the training by making descriptive and reflective notes, which amounted to 27 pages of field notes. Significant observations mean that it had to fall within the framework of the deduced programme theory and, therefore, had to relate to the programme context, the mechanisms or the outcome patterns.

During the 12 interviews that lasted between 30 and 60 min each, proactive motivation and goal processes regulated through goal generation (envisioning a future state and generating a plan to reach it) and goal striving (enacting the plan and reflecting on it) were examined during three motivational states: 'can do, reason to, and energised to' (Parker, Bindl & Strauss 2010:827). Interview questions were developed to generate data on the outcome patterns from a psychological perspective, the underlying mechanisms and the programme context of these interventions (Gielnik et al. 2015; Glaub et al. 2014). Field notes, together with the interview data, were systematically integrated to gain insights into the PI interventions (Busetto, Wick & Gumbinger 2020; Campos et al. 2017; Langley et al. 2013).

### Data analysis

Broadly, this study followed a qualitative inductive approach to analysis, drawing from Hsieh and Shannon's (2005) and Saldaña's (2021) methodological considerations. Firstly, the conventional approach to content analysis was applied to make sense of the data during and after the empirical investigation for the within-case analysis process (Maxton 2016). Codes, code categories and sub-categories emerged across all the data that provided insights on an individual level (Hlady-Rispal & Jouison-Laffitte 2014; Saldaña 2021). It indicates how the data from the observations during the analysis and then the data from the interview transcriptions post-intervention related to the programme context, the mechanisms and the outcome patterns for each case, which led to six aggregated themes (Kovacs & Corrie 2017; Pawson & Tilley 2004).

The directed approach to content analysis was then used after the empirical investigation to analyse the data with a coding framework in the cross-case analysis (Hsieh & Shannon 2005; Maxton 2016). The deduced programme theory provided appropriate categories defined according to the literature. These categories were grouped according to the programme context, the mechanisms and the outcome patterns (Pawson & Tilley 2004). Categories are physical setting and learning conditions for the programme context; situational, action-formation and transformational mechanisms and entrepreneurial action towards nurturing the entrepreneurial mindset for the outcome patterns (Astbury & Leeuw 2010; Kolb & Kolb 2005; McMullen & Shepherd 2006).

Data displays as explanatory effect matrixes were then used to show outcome patterns for each case (Kovacs & Corrie 2016, 2017). Mechanisms and programme context factors were linked to these identified patterns of the outcome, which were interpreted across all cases, allowing the underlying mechanisms for the intervention to surface (Kovacs & Corrie 2017; Pawson & Tilley 2004).

### Quality assurance and ethical considerations

Firstly, the researcher assured the intervention conducted by the well-established South African company is, in fact, a PI intervention. Therefore, the intervention's training manuals and materials were examined for authenticity.

Secondly, the interview schedule was introduced as a pilot test to one participant that was part of the intervention but not selected as a case. The outcome of the pilot interview was used to refine the questions and how the interview was approached to produce more flexibility and create more fluency in the interview process.

Thirdly, four criteria that parallel reliability and validity and support trustworthiness in the data to offer qualitative rigour were used: credibility, transferability, dependability and confirmability (Lincoln & Guba 1985). Triangulation was

applied to look at how the data from the observations and the interviews post-intervention interrelated to enhance the credibility of the data. A detailed description of the research context for the study helped with transferability (Phillips & De Wet 2017). In addition, an audit trail was applied to record changes and show limitations, allowing the inquirer to demonstrate dependability (Phillips & De Wet 2017; Tobin & Begley 2004) and a confirmability audit, which includes 'evidence of the use of a set of pre-defined and clearly specified criteria for evaluating the programme' (Phillips & De Wet 2017:116) to ensure confirmability in the findings (Tobin & Begley 2004).

Lastly, to uphold ethical standards, written ethical clearance was obtained from the Institutions Research Ethics Committee, formally signed consent forms were obtained before any data collection, and confidentiality was preserved by using pseudonyms.

### Ethical considerations

Ethical clearance to conduct this study was obtained from the Research Ethics Committee at the Gordon Institute of Business Science – University of Pretoria.

## Results

Following the conventional analysis approach, all data were analysed, and 492 codes were developed, grouped into 29 code categories with 23 sub-categories. Six aggregate themes (see Table 1) emerged from the analysis.

Table 2 shows a matrix of how each case relates to the six aggregate themes.

### Proactive or reactive behaviour

The theme of proactive or reactive behaviour has shown each case's attitude of being proactive with their business actions in training. Table 2 shows cases who want to be proactive; however, they are more accustomed to reacting to stimuli from the external environment and their habitual ways of doing. Yet, some cases are willing to make plans if the available information provides sufficient insights to a favourable outcome, which is seldom the case as the future is unknown.

### The self and attitudinal change

The self and attitudinal change were represented by the sub-categories attitudinal change, negative attitudes and positive attitudes. The codes connected to these clusters represent a way of thinking and feeling about something. Because of the individual focus of this study that mainly relates to the respondents' outlook on life, their businesses and their perceptions and expectations about the intervention, these attitudes can either be positive, negative or in a transition phase. The theme, however, is also influenced by each case's independence in ownership, their attitude towards outgroups such as foreign nationals in their respective communities

**TABLE 1:** Linked codes, code categories, sub-categories and the aggregated themes.

Codes	Categories		Aggregated theme
	Code category	Sub-categories	
33	Actions	Actions towards business (8)	<b>Proactive or reactive behaviour</b>
		Actions in the training (25)	-
21	Attitudes	Attitude change (4)	<b>The self and attitudinal change</b>
		Negative attitudes (3)	-
		Positive attitudes (14)	-
4	Perception	-	-
7	Ownership (independent)	-	-
6	Outgroups	-	-
6	Individualistic	-	-
9	Change	-	-
11	Cognitive	-	-
10	Determination (motivation)	-	-
4	Reflection	-	-
11	Behaviour	-	-
4	Awareness	-	<b>Business behaviour and change</b>
11	Emotive	-	-
43	Business	Business activity (22)	-
		Business insights (7)	-
		Business marketing (2)	-
		Business opportunity (1)	-
14	Customers	-	-
7	Employment	-	-
13	Challenges (in business)	-	-
8	Sharing	-	<b>Learning for change</b>
45	Learning	Blended learning (6)	-
		Learning by doing (6)	-
		Learning through instruction (22)	-
		Learning through own experience (8)	-
		Learning through sharing (3)	-
14	Collective (social)	-	<b>The means to change</b>
30	Resources	Business means (8)	-
		Business needs (7)	-
		Business offering (5)	-
		Business reward (10)	-
5	Context	-	<b>Positive deflection (the intervention)</b>
9	Trainers	-	-
13	Informational (self-concept)	-	-
2	Challenges (in the training)	-	-
126	Training	Training activities (2)	-
		Training conditions (8)	-
		Training instructions (2)	-
		Training material (40)	-
		Training structure (34)	-
5	Expanding	-	-
11	Forward-thinking	-	-
10	Monitoring	-	-

Source: Saldana, J., 2021, *The coding manual for qualitative researchers*. SAGE Publication, London, pp. 1-440

and individualistic tendencies and preferences over social inclusion. Considering Table 2, cases are cautious when making decisions and need sufficient information based on facts before they act on their intentions. Considering the theme of proactive/reactive behaviour, it makes sense that

TABLE 2: Summary of cases' attitudes regarding the six themes.

	Mary	Joan	Emily	Beatrice	Bette	Ana	Clelia	Margaret	Precious	Beauty	Regina	Princess	
Proactive/reactive behaviour	Acts when circumstances require her to act but refrains from action if information available is insufficient to secure a favourable outcome.	Likes to be prepared and is comfortable with making plans if it focuses on medium and long-term plans.	Actively attacks problems. Whenever something goes wrong, she searches for an immediate solution and likes to get actively involved whenever possible.	Believe planning is good but chooses to leave it for later when the future is more known. Are cautious and need certainties before acting.	Believe planning is good but chooses to leave it for later when the future is more known. Are cautious and need certainties before acting.	Believe planning is good but chooses to leave it for later when the future is more known. Are cautious and need certainties before acting.	Believe planning is good but chooses to leave it for later when the future is more known. Are cautious and need certainties before acting.	Is comfortable with planning for the future. She thinks planning will have a positive effect on the business.	Believe planning is good but chooses to leave it for later when the future is more known. Are cautious and need certainties before acting.	Prefers to tackle problems and issues head-on but takes a back seat when it comes to planning. She learns through observation and reflection before acting.	Believe planning is good but chooses to leave it for later when the future is more known. Are cautious and need certainties before acting.	Believe planning is good but chooses to leave it for later when the future is more known. Are cautious and need certainties before acting.	
The self and attitudinal change	Cautious; she use experience to make decisions and draws from her knowledge of the context. Does not like to take risks or be caught off	Are conservative in her decisions and actions, choosing a look-before-you-leap approach.	Chooses to reflect and learn, making sense of things before change happens.	Considers many possibilities and alternatives before deciding. She is pragmatic and slows in making decisions.	She was outspoken, confident and adamant about getting her point across even though the evidence was unanimously against her.	She was outspoken, confident and adamant about getting her point across even though the evidence was unanimously against her.	Are cautious about making decisions as she desire more information to be more in control.	Are cautious about making decisions as she desire more information to be more in control.	Although quiet and reserved, she will not take a back seat when confronted with an issue she is passionate about.	Cautious and prefers to make decisions that are based on facts. She likes to be correct and prefers a step-by-step approach to solving problems.	Are cautious about making decisions as she desire more information to be more in control.	Are cautious about making decisions as she desire more information to be more in control.	
Business behaviour and change	She is drawn to context-specific content she is familiar with. She is practical in her outlook and over-relies on what is known.	Comfortable with change if it is practical, a forward thinker. Conservative in her actions, but does not stray away from new information that can support and improve her business.	She is committed to learning if learning new behaviours will grow her business.	Conflicted in terms of long-term planning, uncertainties but agrees planning is essential, she still hesitates when the future is uncertain.	She was heavily focused on the financial and marketing aspects admitted that goals and planning are missing from her business endeavours.	It took her time to make sense of the information to understand it in terms of her reality, dispositioning her learning.	The training content reminded her of previously forgotten business ideas. Other trainees helped her to transform her ideas into potential business opportunities.	Interactions with competitors and community members to attain and share information exited Beauty. She is comfortable in a social environment if she controls the interaction.	The training content reminded her of previously forgotten business ideas. Other trainees helped her to transform her ideas into potential business opportunities.	The training content reminded her of previously forgotten business ideas. Other trainees helped her to transform her ideas into potential business opportunities.	Interactions with competitors and community members to attain and share information exited Beauty. She is comfortable in a social environment if she controls the interaction.	She used reflection to relate information to her own business.	Interested in planning from a social perspective.
Learning for change	Reserve, disengaged, and distracted, and prioritised phone calls over the training intervention.	Learn through reflection. She is cautious and rely on familiar information to make decisions.	responsive in training. Said grace in the morning and helped explain some concepts to another trainee.	She was active in the classroom and participated well but is sceptical in what she believes.	Practical, does not take unnecessary risks and prefers to learn about things and change if it makes sense in her everyday life.	Learn through reflection. She is cautious and rely on familiar information to make decisions.	Reserved and quiet, although open to change, needs considerable information to be convinced of its benefits.	Could not understand simple concepts in training, making learning difficult.	Willing to learn if the information mimics the known.	Learn through reflection. She is cautious and rely on familiar information to make decisions.	Learn through reflection. She is cautious and rely on familiar information to make decisions.	Learn through reflection. She is cautious and rely on familiar information to make decisions.	She is curious and wants to understand things; however, she does not want to be bogged down by structure and prefers to make her own rules.
The means to change	Unresponsive uninterested in the learning material. The content was foreign to her.	Use experience and intuition to make decisions as open-minded. Open to change if the change improves her business or personal life.	She is reserved with a clear direction of where she is going. She is willing to change if the information aligns with her belief system or convinces her to adjust.	Familiar with her business and comfortable with the content of the training.	She is optimistic and open to change in a familiar context.	She is optimistic and open to change in a familiar context.	She is grounded in her belief system and values her connections to the community.	Finding it difficult to make sense of certain concepts, she is willing to learn and change but needs some added assistance and guidance.	Learn through reflection. Learning and change happen when there is a connection between the learning material and her known reality.	Headstrong, exposed to business processes from an early age making her more open to change.	Headstrong, exposed to business processes from an early age making her more open to change.	Set in her ways, being guided by her belief system.	
Positive deflection	Reserved and cautious, not open to change. Uses insights from her business experience to help her choose alternatives using a reactive approach to change her business environment. Responded well to elements and activities miming her context.	Joan learned about flaws in her business. Had a positive business growth outlook. She comfortable sharing business insights from her rich experience as a businesswoman. She was intrigued by planning and formulating goals for her business.	Training material stimulated Emily's way of thinking about her business to add value for her customers. Set in her ways of thinking, making it difficult to change if it is not supported by objective world evidence shared in a familiar context.	Open to change and is intrigued by goal setting. She was comfortable with the training material and enjoyed the training activities. She liked the freedom to choose whether she agreed with the learnings to change her attitude about it accordingly.	She learned budgeting, saving and ways to distribute her products which she connected to the training with a context that is very similar to her familiar context.	Monitory returns were essential. Connected well with activities that emphasised budgeting. She was amazed to learn that separating business income from personal spending is good practice.	She was cautious regarding her business activities and apply the new knowledge in her business.	Intrigued by activities about feedback and budgeting. Was surprised to learn business owners should communicate with their customers about their needs. Learned that business insights guide owners to market their businesses	She was stuck in her ways of conducting her business and she did open herself to new ways of thinking.	She related to the material that was context specific.	She was stuck in her ways of conducting her business and she did open herself to new ways of thinking.	She was comfortable with the material contextualised in her own familiar possibilities.	She was sceptic of the intentions of the intervention and, therefore, did not share much about her business activities. She was very taken by business planning and budgeting and viewed it as essential in her daily business activities.

these cases are doubtful when it comes to being proactive as their actions are based on the known in an uncertain environment – again, relying on their habitual ways of acting.

## Business behaviour and change

The sub-categories business activity, business insights, business marketing and business opportunity represented business behaviour and change. These categories are related or directly linked to each case's business. However, awareness created from context-relevant case studies and scenarios used in the intervention cannot be ignored. These learning tools evoked emotional responses in some cases that must be recognised as it plays a significant role in the change within the intervention. It can be deduced that the training content plays a significant role in changing behaviours. As seen in Table 2, cases responded well when the content mimicked a familiar environment. Change, therefore, is heightened when the known is blended with the unknown. In other words, if the cases understand the scenarios and case studies used in the interventions in a familiar context, they are more willing to change their behaviours.

## Learning for change

Learning for change was represented by blended learning, learning by doing, learning through instruction, own experience and sharing. Apart from learning through sharing, sharing in terms of informational resources within the training environment also became evident as trainees used the intervention as a networking platform to empower themselves even more. Table 2 shows that learning new behaviours depends on the familiar context in which information is delivered. Reflection is the driving force for change, and the cases must make sense of new information based on what they know already. For the cases to trust the information shared by the trainers, it must be delivered in a way that makes sense to them. Therefore, change occurs if new information is shared incrementally, consciously relating it to what is known already. In other words, to convince cases to change their habitual ways of acting, they must first understand their tightly held beliefs and how they

are based on wrong assumptions before new information is accepted.

## The means to change

The means to change was linked mainly to resources and sub-categories representing the need for business resources, business offerings and rewards reaped from business activities. It was explored from a social perspective regarding collective assistance and how each case contributes towards their community and how their community, in turn, supports their businesses. In other words, it provides an incentive for change. Table 2 shows clearly that cases are set in their ways. The age range of these cases could contribute to them holding on tightly to their belief system and habitual patterns of acting. The learning content here matters. For cases to learn new behaviours, an understanding of their worldviews, on an individual level, is needed firstly to align the learning content with misplaced assumptions and then provide insights to more positive behaviour.

## Positive deflection (the intervention)

Positive deflection (the intervention) was represented by the sub-categories training activities, training conditions, training instructions, training material and training structure. These categories also form the core tools in the intervention. In Table 2, cases have been shown to connect differently to different elements in the training. It points to the elements in their businesses they did not understand before the training, and it is in their interest to know more. On an individual level, it, therefore, makes sense to use these different aspects in the training to captivate participants' interest first before moving to other elements that might not be familiar or interesting to them.

Table 3 summarises the explanatory effect matrixes drawn from the findings.

Looking at the CMOC for every case (Table 3), which differs between cases because of small nuances, the most dominating mechanisms shown to drive change in a familiar and social context were action-formation and situational

**TABLE 3:** Summary of the explanatory effect matrixes for each case.

Pseudonym name and actual age	Context	Mechanism	Outcome patterns	CMOC per case
1. Mary (69)	Thrive in a familiar context	Action formation	Certainty and control	Certainty is key
3. Emily (54)	Thrive in a familiar context	Action formation	Certainty and control	Certainty is key
4. Beatrix (55)	Thrive in a familiar context	Action formation	Practicality seems to be critical	Practicality is key
6. Ana (47)	Thrive in a familiar context	Action formation	Material outcome	Certainty is key
11. Regina (36)	Can adapt to the context	Action formation	If you work hard, you will reap the benefits	Open-mindedness is key
2. Joan (58)	Can adapt to the context	Situational	Controls the outcome	Open-mindedness is key
7. Clelia (69)	Thrive in a familiar context	Situational	Reality must be practical	Practicality in a social context is key
9. Precious (49)	Thrive in a familiar context	Situational	Certainty and control	Certainty in a social context is key
12. Princess (61)	Thrive in a social context	Situational	Family benefits	Social responsibility is key
5. Bettie (57)	Thrive in a familiar context	Action formation & situational	It must be practical	Practicality is key
10. Beauty (61)	Thrive in a social context	Action formation & situational	The collective good	Certainty in a social context is key
8. Margaret (61)	Can adapt to the context	Transformational	Community benefits	The bigger picture in terms of social responsibility is key

CMOC, context-mechanism-outcome configuration.

mechanisms, with only one case driven by transformational mechanisms.

## Discussion

### The programme context

Considering the setting of the intervention, as shown by the deduced programme theory, to create a learning space that enhances experiential learning and stimulates a 'growth-producing experience' (Kolb & Kolb 2005:205), some conditions should be acknowledged:

1. Respect for each learner and their respective experiences was enduring in both interventions, supported by the theme of positive deflection (Kolb & Kolb 2005). Each learner was part of the microsystem, and the quality of learning largely depended on the quality of the relationships established in each system. Collaboration, therefore, was present that supports learning and change in a microsystem and aligns with the deduced programme theory.
2. To learn experientially, individuals must 'own and value their experiences' (Kolb & Kolb 2005:207). Participants used their prior knowledge to make sense of new knowledge, which was restricted in some cases because of their limited experience. The findings, therefore, align with the deduced programme theory.
3. To learn, individuals must acknowledge and embrace differences in skill, status, life experience or ideas and beliefs (Kolb & Kolb 2005). Some respondents were open to learning from each other, while others were very set in their ways, supported by the themes of self and attitudinal change, proactive and reactive behaviour and learning to change. Therefore, it can be argued that initial attitudes forged through experience must be unlearned first to enable an openness to change and accept new ways of thinking that are not part of the deduced programme theory, adding unique insight to the literature.

Also, it is required that conversations happen to make sense of their experience in a learning environment (Kolb & Kolb 2005). There was a sense of community among the trainees who continuously reflected on what they had learnt among one another, supported by the themes of business behaviour and change and learning for change adding to the deduced programme theory.

Looking at the learning conditions, it is clear from the literature that learning happens when entrepreneurs experience the process of venture creation, in the sense that entrepreneurs in general, and in no order, act, conceptualise and reflect on the learning that takes place, considering the entire learning process (Kolb & Kolb 2005; Pittaway & Cope 2007; Smilor 1997). This approach, however, ignores individual trainees' resistance to change, as some aspects of the topics in the interventions do not agree fundamentally with their worldviews, which is supported by the theme of the self and attitudinal change. And because some trainees are conservative by nature, they do not voice their

disagreement nor open themselves up to debate the matter, which leaves a gap in what they seem to be learning compared to what they are learning.

Therefore, to effectively learn from experience, some form of familiarity must be present to relate new information to the known. The findings partially agree with the deduced programme theory but also add to the literature by highlighting the importance of individual consideration in a training environment. Individuals hold different worldviews, shaped by experience in a specific community setting, developing an attitude that resists changing if it challenges current perceptions instead of supporting change in a more positive way to learn and adjust, as is currently assumed.

### The mechanism

With action-formation mechanisms, 'individual choices and actions are influenced by a specific combination of desires, beliefs and opportunities' (Astbury & Leeuw 2010:371). However, they are all influenced by their known context, which creates boundaries in allowing new knowledge to add value as intended. Certainty in a familiar context supports change, which adds to the deduced programme theory and the literature.

Situational mechanisms show 'how specific social situations or events shape the beliefs, desires and opportunities of individual actors' (Astbury & Leeuw 2010:371). These cases rely greatly on their families, and their communities significantly impact their decisions. Not only does the context influence their choices in how it benefits them, but a significant part is how it reflects positively back to their families and the community. The findings, therefore, have shown that these cases will be more comfortable with uncertainty and more open to change if their actions benefit their families and community at large, adding to the deduced programme theory and the literature.

Transformational mechanisms show 'how a number of individuals, through their actions and interactions, generate macro-level outcomes' (Astbury & Leeuw 2010:371). In one case, any change from the intervention must serve a bigger purpose. Entrepreneurial action will only increase if it has relevance and sustenance in terms of helping the community, family, friends and society at large, adding to the deduced programme theory.

Considering the different mechanisms supporting change in these interventions, which lead to the outcome patterns, it becomes apparent that different mechanisms must be considered when developing programmes (Astbury & Leeuw 2010).

### The outcome patterns

Although the focus of this inquiry was not to investigate the outcomes of these interventions, it still had to be considered to understand the workings of the interventions. To enhance

the outcome patterns for PI interventions, entrepreneurial action must be increased. If planning forms the significant link between an entrepreneurial intention and the behaviour that follows (Gielnik et al. 2015), it is imperative to ensure planning and goal setting is understood and internalised during PI interventions. It cannot be achieved if the concept of planning and goal setting remains foreign, as detected in several cases, and goal setting ignores different motivational aspects of outcome patterns.

Although the entrepreneurial mindset is a state that develops over time, PI action-based interventions support the notion of cognitive adaptability to promote action. It also motivates entrepreneurs to perform economically by developing personally. It can be argued that the entrepreneurial mindset as a concept becomes instilled in entrepreneurs through a series of actions that foster cognitive adaptability, self-motivation and an affective state that supports them in pursuing an opportunity (Haynie & Shepherd's 2007; Haynie et al. 2010; Hong et al. 2016; Kuratko et al. 2021; Shepherd et al. 2010). It is difficult to become motivated about a situation one knows very little about. The findings overwhelmingly point to trainees not being open to change, meaning very little learning takes place, making it difficult to develop cognitive adaptability. The results, therefore, add to the deduced programme theory and the literature.

## Key findings

The adjusted programme theory (the CMOC) for PI interventions, shown in Figure 2, identified attitudinal change as the primary contributor to elicit change in PI interventions. Evidence continuously pointed to the attitudes of the trainees entering the intervention with pre-conceived worldviews shaped by individual, real-life experiences, personally and in their businesses, to form the foundation they use to judge all new knowledge. According to Zahra (2007:9), entrepreneurs' decisions 'delve deeply into the psyche, mental models and inner souls of entrepreneurs' and suggest scholars must recognise and understand the context as we theorise causes, structures and effects. Weick (1995) even stated earlier that 'the key lies in the context – what

came before, what comes next' (p. 389). It, therefore, directly impacts their openness and willingness to change, which affects how they internalise learning in a training intervention and directly impacts the outcome patterns for a PI intervention.

## The programme context

Change is supported by more than the content of the programme. The programme context must be considered in three domains: the larger context in which the training intervention is delivered, the learning environment and the context of the training content. Context matters and variations can alter a mechanism's working (Astbury & Leeuw 2010). As much as context is about the place, context is also about the circumstances that form the setting for the event.

The larger context can be understood by investigating the national culture of a country. However, in the case of South Africa having multiple cultures, careful consideration must be given to these pivotal differences. Context, however, was also about the learning environment. Interestingly, from the observations in the interventions, it did not play a significant role in the change that occurred during learning.

The content, the training material, should mimic the context in which it is delivered. In the data after the interventions, interestingly, when cases reflected on the content, those activities formulated using a context very similar to theirs were the activities that were recalled easily and were quicker. The learning content followed the process of entrepreneurship in that it firstly focussed on the initial idea that were evaluated in terms of its feasibility and viability. It used drivers of innovation to establish whether the idea was creative and unique, thinking outside the box. Thereafter, goals were set with an action plan to help develop incremental steps for reaching these goals. From the findings, however, the cases were unclear about the meaning of goals posing a limitation in the success of these interventions, not understanding these concepts creates a weakness in the intervention. Planning moves the trainee from the point of initial cognitive thought-stimulating intention towards action; feedback then provides leverage in terms of aligning the opportunity with reality and gaining a better understanding of what works and does not. While proceeding through the themes in entrepreneurship, PI dimensions such as self-starting, goal-directed, action-oriented and persistent behaviour were instilled (Fay & Sonnentag 2010; Frese et al. 1997). The structure and the sequence were geared to stimulate entrepreneurial action, which is significantly influenced by the trainees' attitude before the training intervention. The findings showed that if a trainee is not convinced that their worldview is incorrect and does not internalise it personally, change will not occur as intended.

Therefore, the outcomes of this study agree with the deduced programme theory regarding the training intervention process, which entails the sequence, structure and focus of these interventions. The study, however, stresses the

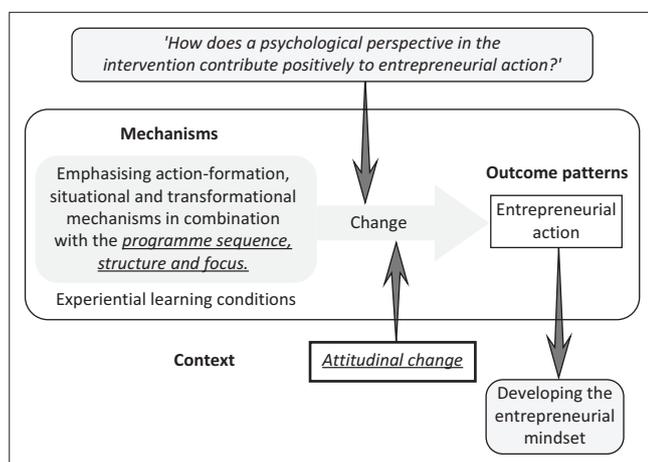


FIGURE 2: Analytical framework for the programme theory.

importance of conceptual understanding first before trainees apply these steps in the learning process to their businesses. The data have shown the procedure followed in these interventions creates a conducive environment to stimulate change, yet, change and learning on an individual level remain dependent on the individual cases' willingness to accept change, to unlearn misconceived assumptions and learn new behaviour.

### The programme mechanisms

With action-formation mechanisms, cases prefer a more stable and familiar context and use what they know to make sense of new information. In these cases, certainty is vital in change and action. They are open to change if there is a link between what they know, their experience and what is presented in the form of new information. Furthermore, these cases want to predict outcomes accurately and seek out opportunities in which they have some degree of control.

*Proposition 1: Certainty and practicality drive action-formation mechanisms to positively stimulate individuals' openness to change in a personal initiative intervention. In other words, 'how will it benefit me?'*

With situational mechanisms, cases are more open-minded and comfortable with an uncertain context. They are more adaptable to change, although some familiarity in the context, in terms of the social setting, helps them to make sense of new information. They are socially oriented, and their willingness to change is strengthened when it involves their community, family and friends. These cases mostly feel they control a situation and, therefore, the outcome.

*Proposition 2: Practicality in a community context, even if uncertain, drives situational mechanisms to positively stimulate individuals' openness to change in a personal initiative intervention. In other words, 'how will it benefit my community?'*

With transformational mechanisms, the case openness to change is driven by the impact the change will have on the larger social context. The case seemed to be in control of situations and comfortable with uncertainty. The case perceives and processes information simultaneously, making the case more open and adaptable to change. The social context, however, is super important, not in how it benefits the case but in how it positively impacts the larger social context: the community, family, friends and society.

*Proposition 3: The social context drives transformational mechanisms to positively stimulate individuals' openness to change in a personal initiative intervention. In other words, 'how will these small changes impact the larger social context?'*

### The context-mechanisms-outcome configuration

The programme context must be considered in three domains: the larger context in which the training intervention is delivered, the context of the learning environment and the context of the training content. Three levels of mechanisms

play a role in shaping the outcome patterns. Action formation and situational mechanisms are considered the dominant mechanisms, with transformational mechanisms to a lesser extent. And community dynamics influence thinking and shape behaviour in context.

Looking at the context-mechanism-outcome pattern configurations, the CMOCs indicate 'how programmes activate mechanisms amongst whom and in what conditions, to bring about alterations in behavioural or event or state regularities' (Pawson & Tilley 2004:9). Context-mechanism-outcome configurations are propositions that predict and explain the 'mechanism-variations', together with the 'context-variations' to produce the patterns of 'outcome-variations' (Pawson & Tilley 2004:9); therefore, the findings have contributed to pinpointing the CMOC for PI interventions in a South African context.

### Strengths and limitations

The Adjusted PI programme theory agreed with the literature, firstly, in terms of the sequence, structure and focus of the interventions and how the deliverance of content supports change and learning. Secondly, the study extended the theory by showing that attitudinal change on an individual level is required to increase the learning in these interventions, making it more sustainable. It also has been demonstrated that attitudinal change links with different types of mechanisms that trigger change in these PI interventions; therefore, it requires a different approach concerning the content of these interventions and the way it is delivered.

The study outcomes depended on the participants' cognitive ability to recall the experience and how they made sense of the learning and change, which posed a limitation (Weick, Sutcliffe & Obstfeld 2005). Validating the data in each domain potentially lessened the adverse effects of perceptual, interpretive and recall bias. The study's context could not be separated from the outcome, meaning that when transferability is considered, the context must be and was closely related to the circumstances at all times (Blamey & Mackenzie 2007).

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

### Recommendations and suggestions for future research

The findings allow PI intervention content developers to adjust the content to fit their audience better and train the

trainers to facilitate different groups of individuals according to how susceptible they are to new knowledge. In this way, in general, the outcomes of PI interventions can be increased. For change to be enduring and learning to happen for these individuals, new knowledge must be linked to known realities first; then, gradually, new ways of thinking must be stimulated through various activities. Therefore, greater emphasis must be placed on understanding these worldviews and using the insights as antecedent mechanisms in the interventions to support unlearning before new knowledge is shared.

The group of individuals who favours action-based mechanisms will be more open to change if a trusting relationship exists between them and the trainer – using their situations as examples and allowing their experiences in a familiar context to strengthen discussions. For individuals who favour situational mechanisms, common ground is needed. The trainer should be trained to identify and use commonalities within the group. Content, therefore, should be adjusted to keep the social context, using exercises and scenarios that show how the community, family and friends can be utilised as supporting mechanisms to increase positive outcomes. Participants who belong to the transformational mechanism group need to perceive and understand the value of personal change considering the benefits to their community, family and friends. The bigger picture here is vital, which must be emphasised in the learning content and in the way the trainer delivers the content. Trainees must continuously be reminded of the benefits of the more extensive social system during the intervention and how small contributions will support and help sustain the system.

Therefore, the developed propositions provide a gateway to future studies to explore these different mechanisms further with attitudinal change at its core to secure additional means to increase the outcomes for these interventions making them more sustainable in an African context.

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The authors have declared that no competing interest exists.

## Authors' contributions

A.G.v.d.W. planned and conducted the research. He also reviewed the literature, formulated the research design, collected and analysed the data, made interpretations and finalised the research report. K.M. supervised the research

project and continuously reviewed its development to encourage a final paper with academic rigour.

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## Data availability

Original data is held for safe keeping at the Gordon Institute of Business Science - University of Pretoria and is available upon requests made to the corresponding author, A.G.v.d.W.

## Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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