Assessing work-based values: The missing link in improving youth employability

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ABSTRACT

Technical and Vocational Education and Training (TVET) colleges are intended to equip youths with work-relevant skills, but the capacity of the labour market to absorb them is limited and South Africa has high levels of unemployment. Employers argue that young work-seekers from TVET colleges may well possess technical skills but lack employability skills, including appropriate work-based attitudes and values. In response to this scenario, a team of experts designed a short, interactive programme for TVET college students to acquire an improved understanding of and insight into their own values and how these inform their behaviour in the workplace. The values selected were respect, accountability, self-improvement and perseverance. The programme's intended outcome was to increase the participants' awareness of the link between values and their actions so that they could improve their own decision-making and their relationships with colleagues in the workplace. Following this programme, the students were afforded a period of workplace exposure during which they were required to reflect on their experience and how workplace behaviour revealed their own and work colleagues' underlying values. A crucial challenge for the project team was to be able to measure any impact on the participants' understanding of the values and how this understanding might guide their behaviour. The focus of this article is on how the assessment instrument was conceptualised, designed and piloted in South Africa and Kenya. The instrument was required to measure effectively any changes in the participants' understanding of the meaning of each value and the adjustments in their ability to apply the values in real work-based scenarios.

KEYWORDS

Values, workplace, work-based, youths, work, assessment

Introduction

The labour market context

South Africa has a serious social problem of youth unemployment, with 63,2% of youths between the ages of 15 and 24 being unemployed in the fourth quarter of 2020 (Statistics South Africa, 2021:30). This is coupled to rising numbers of Technical and Vocational Education and Training (TVET) college graduates and the limited capacity of the labour market to absorb them (Kraak, Paterson & Boka, 2016; De Lannoy, Graham, Patel & Leibbrandt, 2020).

The South African Department of Higher Education and Training (DHET) argues that the main purpose of TVET colleges is 'to train young school leavers, providing them with the skills, *knowledge and attitudes* necessary for employment in the labour market' (emphasis added) (DHET, 2013:11). Clearly, the DHET recognises that attitudes – which stem from underlying values – are a crucial dimension of employability. Institutions of learning in South Africa, such as the TVET colleges, need to take up the challenge of informing young people about their own values in relation to the work values that are associated with enhanced employability and enabling them to become familiar with those work values. The research therefore attempted to create a process in which students' self-awareness of work-related values could be clarified and enhanced.

Individuals' values and their working life

Values matter because they inform motivations and intentions; they therefore shape human action in almost any behavioural setting. Besides the contribution of technology, worker behaviour is ultimately the most important contributing factor in workplace efficiency and enterprise productivity, competitiveness and innovation.

Every day, values inform behaviours and attitudes in the workplace. If students were afforded the opportunity to debate and formulate their own work-based values while at college or when newly employed, they would be better equipped to achieve their potential by learning from, working with and relating at a personal level to other people at work. Accordingly, students need to become conscious of the workplace as a context in which, in addition to the requisite knowledge, skills and competencies, the expression of particular work-based values is appreciated – not only by employers, but also by co-workers and supervisors.

What is meant by an individual's work-based values? These are the values that inform and contribute to an individual's behaviour in the workplace. The workplace is an institutional form that defines the parameters of working activities and relationships in modern – and now post-COVID-19 – workplaces. As a subset of an individual's general values, work-based values are of particular interest to us because they shape attitudes about and interactions with co-workers and the way in which the individual approaches their work tasks and

responsibilities. We contend that work-based values constitute a legitimate subset of study, since working constitutes such an important domain of human activity to which many individuals commit large portions of their adult lives. Our interest, then, lies in making sense of the ways in which such values contribute to the behaviour of workers and have a bearing on their ability to gain, retain and even regain employment.

Values in the workplace

A workplace is a particular institutional form with purposes, an organisational shape, functions and processes. It requires particular types of working relationships, skills and personal characteristics of those who work in it. Our focus is on values in the workplace because workplaces often bring together people who have different age, gender, cultural, ethnic, religious and class backgrounds, all of which contribute to the value profile of an individual. Since workplaces are seldom culturally homogenous, employers value workers who are able to understand, appreciate and adapt to the social environment of the workplace while at the same time possess the capacity to respectfully express and defend their own values and behave in accordance with them (Paterson, Keevy & Boka, 2017). We argue that workers' values are of considerable importance in workplaces to the extent to which these values enhance – or constrain – the quality of working relationships in an enterprise; they are also important in enhancing or constraining the capability of the enterprise to achieve its productivity targets and sustainability potential. Furthermore, in the workplace, as in other institutional environments, we assume that individual workers differ in the levels of awareness they have of their identities and their own values and of how these values inform their thinking and actions while at work (Lloyd, Roodt & Odendaal, 2011).

Values are an important predictor of human behaviour. Employers therefore pay close attention to the workplace values that prospective and current employees express. As relatively durable social and psychological constructs, values reflect what individuals and human groups hold to be important, inform how they live and work, and define for them what is good or bad, desirable or undesirable. Over the years, job descriptions have also progressively included work-based values as required competencies of potential candidates. In our research, we acknowledged that the acquisition of values is part of the process of individual identity formation (Lloyd, Roodt & Odendaal, 2011).

Our research was concerned primarily with work-based values that are foregrounded when employers select workers who possess the values which fit the jobs that need to be done in their establishments. By 'work-based values' we mean the set of values that are relevant in a particular institutional environment, namely, the workplace. There, specific work-related behaviours, rules, expectations and relationships are emphasised – in other words, the values employers are looking for in work-seekers. Employers want to select individuals who bring certain behavioural and attitudinal values to their daily work and these may include, among other things, a work ethic, a positive attitude and adaptability (Loretto, 2015).

Work-based values programme

As alluded to earlier, TVET college graduates often struggle to find work in the constrained and consequently highly competitive local employment market. Given the significance of values in the workplace, it can be argued that as part of their preparation for the world of work, young people such as those in training at TVET colleges would benefit appreciably from opportunities to explore their own positions with respect to these values.

For some time now, the inclusion of values in a teaching and learning programme has attracted some controversy. Observers rightly pose questions such as: 'Why values?', 'Which values?', 'Whose values?' and 'How?' or 'Through which methodology are values dealt with in classrooms and lectures?' These issues are relevant in South Africa, given its history of colonial and apartheid racial indoctrination in schools. Paterson, Keevy and Boka (2017) have critically analysed teaching and learning values with reference to the South African experience. Furthermore, in the context of employment, legitimate concerns have been expressed that students at TVET colleges can be 'prepared' for work through inculcating in them values of subservience to workplace and employer expectations. In the view of critics, this intention can be part of utilitarian 'job readiness' programmes, some of which emphasise worker malleability to meet employers' expectations (Fugate, Kinicki & Ashforth, 2004) and may also be embedded in 'employability programmes'.

In this project, a work-based values programme involved providing young people with the opportunity to digest the issues, understand values they do not necessarily subscribe to and, upon reasonable reflection, internalise values that will guide their choices and behaviour as individuals and as work-seekers. In other words, the aim of the programme was to empower young people to be able to manage their relationships and engage with their employers, and also with colleagues. This is because the expression of values is much broader than the employer–worker axis: it also takes place between workers themselves, in relation to gender, for example. When developing our programme, we chose to focus on four values which we argue are fundamental to informing daily behaviour in the workplace, namely: (i) respect; (ii) accountability; (iii) self-improvement; and (iv) perseverance. These values are relevant in everyday environments, but were selected because they are also particularly appropriate to the working environment. Furthermore, they are relevant across occupational categories, which was preferred for the design of the initial programme. They could therefore also apply across a variety of study programmes. Certain values – for example, 'precision' – could well be considered more relevant in particular occupational settings, though.

To this end, the programme involved offering a four-day values clarification process which was first offered to a group of 17 second-year (National Certificate (Vocational) Level 3) Business Studies students at a South African TVET college. The aim of this experience was to engage the participants in developing their understanding of the four selected work-based values (respect, accountability, self-improvement and perseverance), after which they were placed in employment for five working days. During that period, they were required to

observe, record in their logbooks and make sense of their work relationships where values-related issues emerged.

Assessment of the programme

The research was therefore concerned with values that apply in a particular environment which has parameters and role expectations that are different from the family environment or an educational institution. This focus provided a defined institutional framework within which particular values relevant to the workplace were selected for exploration. We argue that this institutional framing and contextualised application of values provided the grounds for developing a viable and useful assessment approach, which we describe in this article.

Devising a means of assessing the impact of the programme was essential from an evidence-based perspective. There would always have been doubt about what the intervention had achieved. At the same time, as the discussion above has acknowledged, values are an elusive concept. In developing a means of assessing the impact of this programme, some options were considered. A large body of work has accumulated on 'work values', which have been defined broadly as qualities that people seek in their work, occupation, or career (Judge & Bretz, 1992; Zytowski, 2006:865; Kalleberg & Marsden, 2013). Examples of this work include assessment tools such as Donald Super's Work Values Inventory (WVI) (Super, 1995). This field is also associated with studies of career development, vocational behaviour, job choice and attitudes to different occupations. Generally, it is asserted that work values predict young people's choice of occupation according to the associated occupational benefits such as salary and work satisfaction (Super, 1995). The focus of this research has a different application from that of the 'work values' literature.

A further requirement considered in identifying a viable assessment approach was to choose a method that could identify any change and progression in participants' conceptual understanding of the underlying values and in their ability to apply this understanding by selecting an appropriate response to a scenario involving a work-based value. Whereas in the reported literature there are examples of studies which have sought to explore work-based values (see, e.g. Wong, 2013), none of the assessments used was deemed to be appropriate to our study. We therefore had to develop our own assessment instrument(s) that could be used both as a baseline and as a gap analysis (pre-test) measure. The instrument(s) also served as a multiple post-test measure to gauge the compounded effect of the four-day work-based values intervention, which was followed by accounts of the participants' experiences during their work placement.

Designing the work-based values assessments

The process of selecting the values to be assessed began with an internet search of the literature for sources on values generally and on work-based values in particular. This resulted in a set of 20 frequently referenced values, which were then considered in turn by a panel made up

of project and participating TVET college staff. First, it was important to engage in discussion with the participating college staff and forge a partnership between the research team (comprising the authors of this article together with experts from the field and the fieldwork manager) and staff from the college such as lecturers, career development officers, placement officers, industry liaison officers and campus managers. This multifunctional approach meant that the variety of elements which needed to be taken into consideration could be considered. The design approach followed a systematic process in which the key stakeholders collaborated from the outset in the selection of the work-based values to be included, the selection being based on what was considered to be most relevant to the TVET context in South Africa. As indicated above, the four values chosen were respect, accountability, self-improvement and perseverance.

The next stage in the process saw the development of construct maps for each of the four values and their corresponding assessments. As noted by the American Educational Research Association (AERA), the American Psychological Association (APA) and the National Council on Measurement in Education (NCME) (2014), the validity of the construct of an assessment begins with specifying the intended construct that the assessment is proposing to measure. This, in turn, depends on operationalising the value construct in order to create a theoretical definition (Cronbach & Meehl, 1955). To realise the goal of operationalising each value, four construct maps were developed in line with Figures 1 to 4 below.

Figure 1: Construct map for the value *respect* (own elaboration) *(Source: authors)*

Figure 2: Construct map for the value *accountability* (own elaboration) *(Source: authors)*

Figure 3: Construct map for the value *perseverance* (own elaboration) *(Source: authors)*

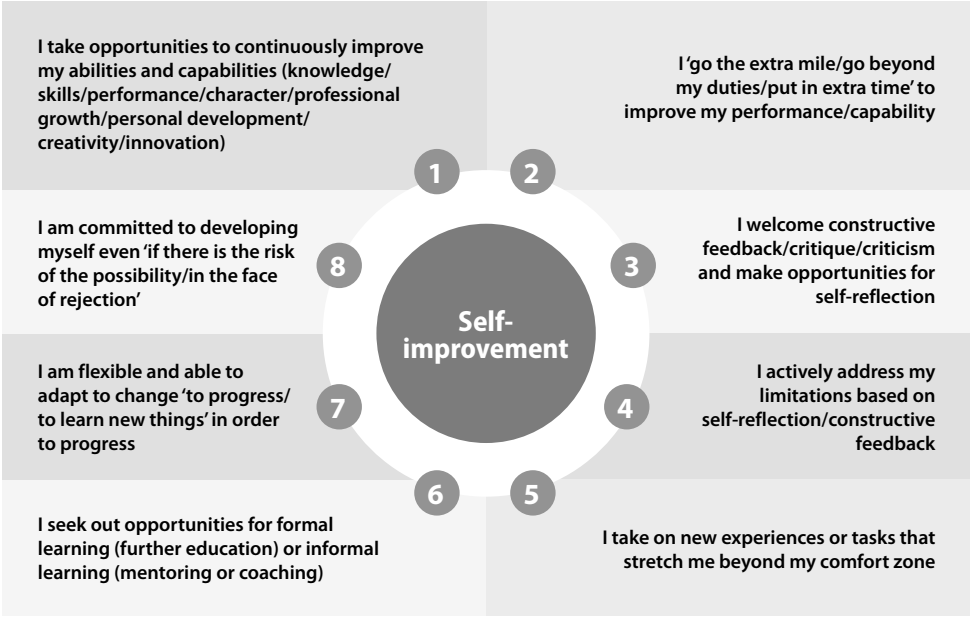

Figure 4: Construct map for the value *self-improvement* (own elaboration) *(Source: authors)*

This process involved desktop research and a document review to guide the identification of an initial set of dimensions that operationalised each value. Once draft sets of dimensions had been identified, these were refined through an internal workshop. This was followed by a theoretical saturation exercise (Saunders, Sim, Kingstone et al., 2018) using Google-based materials to determine whether any other dimensions of the value constructs could be identified. The saturation process contributed to domain coverage, which is a fundamental part of content validity (AERA et al., 2014). The last step in this process was an in-depth engagement session with the research team to finalise the value constructs. The in-depth discussions served a third purpose: to ensure that the process was replicable and therefore reliable across the development of the construct maps. Reliability is a prerequisite for validity (AERA et al., 2014) and was confirmed during our analysis of the pilot data using Cronbach's alpha (Sattler, 2008).

When designing the assessment instrument, the research team decided that the most appropriate structure and format for presenting the four values would be a set of scenarios that depicted typical situations which young people might find themselves facing in the workplace. The associated answer options would either demonstrate the value under consideration or not. With content validity defined as the extent to which a measure represents all facets of the construct (Lawshe, 1975), the research team worked through the various answer options to ensure that they covered all the dimensions of the value construct as defined in the construct map for each specific value. Whereas, initially, on average three scenarios per value were developed, in the final version of the instrument no more than two scenarios per value were required. Once the scenarios had been created with answer options,

the team came together to review and refine each scenario and answer option. This was an in-depth process of review, where the scenarios were adapted to the target audience (i.e. TVET college students) and where the answer options were checked to ensure that their lengths were balanced. The following scenario, which assesses the perseverance value, is an example:

> I am doing a part-time course because I know that it will be good for my future in the company. I spend lunchtime in the office on my course work and get to the office early to fit in an hour before work. My work colleagues keep criticising me and making me feel like I should give up because I cannot pass the one module and because I keep missing out on opportunities to get to know them, to have fun and to build better relationships with the managers. What do I do*?*
>
> **Tick *every option that you think shows perseverance*. There is more than one correct answer option.**
>
> - I believe that if I put my mind to it and stay dedicated, I can succeed in passing the module and the course.
> - I start to spend some lunchtimes with my colleagues to improve my relationship with them, even though I know it could affect my course work badly because I don't have any other time to study.
> - I decide to carry on spending my lunch times (sic) and time before work on my course work so that I can finish my course.
> - I make a plan with my colleagues that I join them twice a week over lunchtime, but that I will carry on studying over other lunchtimes and after work to catch up. I will not give up on my course work, even if they keep criticising me.
> - I keep studying during work hours so that I can take lunchtime with colleagues and managers, which could affect my work badly.
> - None of the above.
> - All of the above.

The last step in the development of the scenarios and the answer options was a plain language edit. This was done to ensure that the language used would be accessible to young people, particularly those for whom English is not their first or home language.

Piloting and field testing the assessment instruments

First pilot

In August 2018, the work-based values assessment instrument was piloted with 16 purposively selected young people who were not associated with the institution where the work-based values programme took place. Of the 16, one had a permanent job as a call-centre agent, nine had been employed only on a temporary basis on contracts varying in length from a few days

to up to seven months, and the remaining six had never been employed in any capacity. Three of the young people were currently studying at TVET colleges and two had completed TVET courses.

The young people were required to indicate which answer options represented most closely their responses to a particular value. Allowance was made for marking each scenario according to the number of options that the candidate correctly selected as representing the value in question. Each scenario was scored out of one, with partial marks allocated for each correct response. The total marks allocated per person were then calculated. After that, internal consistency reliability was calculated using Cronbach's alpha (Sattler, 2008): with a minimum of 0 and a maximum of 1, a reliability of 0,91 was achieved. Considering that only 16 respondents were involved in the pilot and only 13 scenarios were considered, this indicates good internal consistency in the assessment. The high reliability can then be interpreted as an indication that all the scenarios consistently measured the intended construct.

Using classical test theory (Champlain, 2009), the researchers then calculated the item-total correlation for each scenario. Item-total correlations can range from –1 to 1, with correlations between 0,2 and 0,8 indicating good discrimination between respondents achieving relatively high totals and those achieving relatively low totals on the assessment. In ten of the 13 scenarios, item-total correlations ranged from 0,48 to 0,80. Two scenarios had a high discrimination of 0,83 and 0,90 respectively, indicating that the scenario discriminated too well between relatively high and low performers. However, one scenario did not discriminate well between relatively high and low performers, with an item-total correlation of 0,17. This indicates that there was little difference between the scores achieved by relatively high and low performers in this scenario; alternatively, it could indicate that some high performers selected incorrect options and some low performers selected the correct options. This particular scenario involved an ethical dilemma where the respondents had to choose between accountability towards a friend or accountability for the business's money (see below) and they were required to decide based on their archetypal value system, that is, whether they value relationships more than workplace regulations.

Finally, the number of respondents choosing each answer option in a scenario was calculated. This gave an indication of how obviously a specific answer option represented a specific value or not. In the example below, assessing the value of respect, it can be seen that answer option e) was not chosen by any of the respondents. This indicates that this answer option was either too obvious or too obscure. It could also be that the answer option was not worded well. Such answer options were reworded before the second pilot:

> In a team meeting, my manager tells me to do something that I think is wrong for the project that I am involved in. What do I do?

Tick *every option that you think shows respect.* There is more than one correct answer option.

- Even though all the team members disagree with me, I carry on saying what I think and trying to convince the team that my solution is the best solution for the project. *4 respondents chose this option.*
- I value my own opinion enough to share my views and where I stand with my manager so that he/she knows what I think. *9 respondents chose this option.*
- I know my manager has his/her own views and I value my manager's ideas without insulting him/her. *10 respondents chose this option.*
- I agree to carry out my manager's solution, but I decide to also carry out my own solution to show my manager that I am right. *8 respondents chose this option.*
- I go against my manager in the meeting without thinking about his/her opinion. *0 respondents chose this option.*
- I treat my manager with dignity and explain that I understand his/her different views. *10 respondents chose this option.*
- None of the above. *0 respondents chose this option.*
- All of the above. *0 respondents chose this option.*

In addition, considering that none of the respondents chose options g) and h), these answer options were removed from the assessment for the subsequent trialling of the instrument.

After the first pilot, a focus-group interview was conducted with eight randomly selected participants. The purpose of the interview was to provide the participants with an opportunity to share their experiences of writing the assessment, to allow them to comment on the appropriateness (or otherwise) of the scenarios and the associated answer options, and to check that the materials had been written in language that was accessible and easy to understand. This would ensure that the assessment materials and the scenarios which they presented were easy to understand and that the majority of school-leavers and TVET students would be able to engage with them. The language levels of the assessment were also tested through this exercise.

All eight participants (four males, four females) were resident in the Johannesburg area; five were either currently enrolled at TVET colleges or had completed TVET courses, and one had dropped out of university. The remaining two were engaged in part-time work and had not yet studied further. Whereas all eight participants had some understanding of the differences between full-time and part-time employment, they did not display any understanding of, for example, the benefits associated with full-time employment versus a fixed-term contract. Only two of the eight students had ever been in full-time employment; one of them was employed full time at the time of the assessment. Overall, all eight found the scenarios relatable and had experienced some version of these scenarios in either a workplace or a personal context:

> Yes, I think they were pretty realistic. I've experienced two of them, [the IT one], the computer crashed, and I didn't back it up and the one where you had to finish a certain task and tell your friends that you can't go out, but yeah, they were very relatable on my part.
>
> There was a lot that was relatable because I help [the line manager of casual staff] a lot with the meeting stuff and I know how things happen with her; and also in my personal life there are a lot of things that I can relate to, not all to be honest but most of them were relatable.
>
> I think the one where you had to finish client work or where you had to meet a client deadline and then you have to call the whole team to come and help you … that was relatable for me; I know we have to work as a team to finish a client's work, even if it's not my work, but I had to help my colleague to make the company look good.

The participants felt that the language used in the instrument was accessible and they did not believe that presenting the instrument in English presented a problem; on the contrary, they found the examples easy to understand and phrased in simple language. They did, however, indicate that if they had been given more time, they might have given more detailed answers or slightly different answers if they had been able to mull over the scenarios a bit longer. They also indicated that they had given much more thought to answers and more detail in focus-group sessions because these involved speaking rather than writing. Of the ten scenarios discussed in the focus group, only one proved to be problematic in both the quantitative and the qualitative analysis. It was, however, decided it would be premature to exclude the scenario before the second pilot.

Second pilot

For the second pilot, a slightly different format was used. Whereas in the first pilot the young people were asked to identify the answer option that represented the value in question, in the second pilot they were asked what they were likely to do in a specific situation. This allowed for a more nuanced interpretation of the responses. A four-point rating scale was used to avoid a situation where the respondents indicated the most neutral option – for example, 3 in a 5-point scale. An example is given below.

The following question assesses the value of respect:

> I do not get on well with one of my co-workers. They have not been with the company for very long and have different religious and cultural beliefs. They have just asked me to help them carry ten boxes of files to the car. What do I do?

Table 1: Response table for respect (*Source: authors*)

Tick how likely you are to do the following:

	UNLIKELY TO DO	SOMEWHAT UNLIKELY TO DO	SOMEWHAT LIKELY TO DO	LIKELY TO DO
Instead of me helping them I ask a few people to help them with the boxes.				
I don't help them. I don't see why I should help them carry the ten boxes of files because it will not help me.				
Although we have different amounts of work experience and different cultural backgrounds, I still help them to carry the boxes.				
Although I really don't like being in the same room as them, I treat them in a kind way by helping them when they need me.				
Because I have a work task that I need to finish soon, I tell them that I must stay focused on my work and that I don't have the time to help them.				
I tell them that they are responsible for performing all the duties given to them, which includes carrying boxes.				

In September 2018, this format of the values assessment was piloted with a separate group of 16 young people who had not participated in the first pilot. Of the 16, five were in permanent employment. These included being a parking attendant, a telesales consultant, a hostess at a hotel, a swimming coach and a sound engineer. Two of the young people permanently employed at the time had had temporary jobs prior to being permanently employed. Ten had previously been employed only on a temporary basis. These temporary contracts varied from employment for a few days to five months. The remaining young person had never been employed in any capacity. This indicates that there was some prior exposure to workplace experience and learning in this group. Only three of the young people were studying at TVET colleges at the time of the assessment. The lack of access to tertiary education could be explained by (i) their attaining below the required marks in matric for access to post-matric studies; (ii) a lack of financial support for studying after matric; and/or (iii) limited motivation to study after matric. Other reasons, such as family obligations, also require young people to enter the workforce directly after matric.

The young people in our research study were required to indicate how likely they were to respond in a certain way to a particular scenario, according to the coding of the answer options as 1 to 4. Positive responses to each scenario were coded from 1 for 'unlikely to do' to 4 for 'likely to do'. For negative responses, reverse coding was used. Therefore, 'unlikely to do' was coded 4 and 'likely to do' was coded 1. This coding allowed for a total to be calculated, with higher totals reflecting more desirable responses to the scenarios. Then the internal consistency reliability was calculated using Cronbach's alpha (Sattler, 2008). With a minimum of 0 and a maximum of 1, a reliability of 0,84 was achieved. This indicates good internal consistency in the assessment. The high reliability could be interpreted as an indication that all the scenarios and the answer options consistently measured the same construct.

Using classical item theory, the item–total correlation for each answer option was then calculated. Item–total correlations can range from –1 to 1, with correlations between 0,2 and 0,8 indicating good discrimination between respondents achieving relatively high totals and those achieving relatively low totals on the assessment. On average, two to three answer options per scenario discriminated poorly between high and low performers, indicating that high and low performers either responded in more or less the same way or that high performers endorsed fewer desirable responses, whereas low performers endorsed more desirable responses. Answer options with low discrimination values should therefore be reworded or discarded. The table below indicates the overall results per scenario. Four of the 13 scenarios together with their answer options discriminated well between high performers and low performers. Interestingly, one of the four scenarios was less relatable to the responses of the first pilot's participants. Six of the scenarios had, on average, two answer options that needed to be reworded or discarded. Two scenarios and their answer options were then considered for deletion. The participants in the first pilot indicated that these scenarios were more difficult to relate to.

Table 2: Results per scenario for the second pilot (*Source: authors*)

SCENARIO	VALUE	NUMBER OF ANSWER OPTIONS	NUMBER OF ANSWER OPTIONS TO BE REWORDED OR DISCARDED	PRELIMINARY RECOMMENDATION
1	Respect	5	2	Keep scenario, but reword one answer option and discard one answer option.
2		5	1	Keep scenario, but discard one answer option.
3		5	2	Keep scenario, but reword one answer option and discard one answer option.
4	Perseverance	5	1	Keep scenario, but discard one answer option.
5		5	3	Keep scenario, but reword two answer options and discard one answer option.
6		5	3	Keep scenario, but reword two answer options and discard one answer option.
7	Accountability	5	0	Keep scenario and answer options as is.
8		6	3	Consider discarding the scenario.
9		6	2	Keep scenario, but reword two answer options.
10		6	4	Consider discarding the scenario.
11	Self-improvement	6	0	Keep scenario and answer options as is.
12		5	0	Keep scenario and answer options as is.
13		5	0	Keep scenario and answer options as is.

Owing to time and budgetary constraints, no focus group was conducted after the second pilot. However, the participants were engaged in a brief group discussion during which they were encouraged to provide feedback on the instrument in general and, more specifically, on the scenarios and the answer options. The participants indicated that they found it easy to relate to all the scenarios. This response differed from that of the participants in the focus group for the first pilot, who found some scenarios more difficult to relate to. This difference may be due to the diverse profiles of the participants in the two pilots. Unlike the focus-group participants in the first pilot, the participants in the second pilot suggested additional

answer options for two of the scenarios. For example, in the scenario which assessed the value of accountability, one participant suggested that the task could be completed during the two-hour commute on public transport and then submitted electronically prior to the deadline. This was a relatively sophisticated compromise between work and family responsibilities in the scenario.

Field testing

The revised work-based values assessment (from the second pilot) was then field tested in Kenya in October 2018. The testing took place as part of the Building Capabilities for Work and Life Programme. This programme aims to embed whole youth development (WYD) in the TVET system and to reach at least one million youths not in employment, education or training (NEET) in Kenya (Dalberg, 2019). Eleven respondents completed the values assessment. One of the respondents indicated that they had been employed before in a permanent capacity for a period of seven years; the remaining ten respondents were all employed in a temporary capacity at the time of the assessment. Internal consistency and reliability were calculated using Cronbach's alpha. With a minimum of 0 and a maximum of 1, a reliability of 0,8 was achieved. Once again, this indicates good internal consistency in the instrument. The high reliability could be interpreted as indicating that the scenarios and the answer options consistently measured the same construct. Using classical item theory, the item–total correlation for each answer option was calculated. Item–total correlations can range from –1 to 1, with correlations between 0,2 and 0,8 indicating good discrimination between respondents achieving relatively high totals and those achieving relatively low totals on the assessment. On average, two to three answer options per scenario discriminated poorly between high and low performers, indicating that high and low performers either responded in about the same way or that high performers endorsed fewer desirable responses, whereas low performers endorsed more desirable responses. Those answer options with low discrimination values should either be reworded or discarded.

The functionality of the answer options varied from the results found in South Africa. This could be because of the different types of sample being used, cultural differences or differences in language proficiency. At least one scenario per value functioned well, even with a very small sample of 11 respondents. It is, however, recommended that a large-scale pilot be conducted with TVET students to better assess the functionality of the instrument. Piloting the instrument with a larger sample and with TVET students would give an indication of its scalability and replicability in different environments.

Latest configuration of the assessment

After considering the findings from the second pilot, the revised values instrument can best be described as a rating scale based on four subtests, each dealing with one of the four values, namely, respect, perseverance, accountability and self-improvement. Each value subtest contains three scenarios followed by five or six items on which the respondents must rate

their own behaviour as 'unlikely to do', 'somewhat unlikely to do', 'somewhat likely to do' or 'likely to do'. As in the second pilot, positive responses to the scenario were coded from 1 for 'unlikely to do' to 4 for 'likely to do'. For negative responses, reverse coding was used; therefore, 'unlikely to do' was coded 4 and 'likely to do' was coded 1. This coding allowed for a total to be calculated, with higher totals reflecting more desirable responses to the scenarios. Table 3 below indicates the mark allocations per subtest. It should be noted that no overall score is calculated since we were interested in the relative performance of the students on each value.

Table 3: Structure and mark allocation for assessment after pilot 2 (*Source: authors*)

SCENARIO	VALUE	TOTAL NUMBER OF ANSWER OPTIONS PER SCENARIO	NUMBER OF ANSWER OPTIONS REWORDED AFTER PILOT 2	TOTAL MARKS PER SCENARIO
1	Respect	5	1	20
2		4	0	16
3		5	1	20
Total for respect				**56**
4	Perseverance	4	0	16
5		4	2	16
6		4	2	16
Total for perseverance				**48**
7	Accountability	5	0	20
8		5	2	20
9		6	2	24
10		0	0	Scenario discarded
Total for accountability				**64**
11	Self-improvement	6	0	24
12		5	0	20
13		5	0	20
Total for self-improvement				**64**

Conclusion

The functionality of the assessment has been tested using only two relatively small pilots in South Africa and one in Kenya. Therefore, only classical item theory could be applied (as opposed to Rasch analysis). Even though the assessment functioned well and qualitative feedback on the assessment was positive in all three pilots, to ensure the validity, replicability and scalability of the instrument a large-scale pilot involving a minimum of 200 TVET college student participants is needed. Since the instrument functioned well overall in the Kenyan environment, replicability in other African contexts may be viewed with some optimism. Furthermore, since the respondents in all three pilots were mainly non-English speaking and reported that the scenarios were relatable and the language used was easily understood, usage in this population may be viewed as successful. It should, however, be borne in mind that the work scenarios were developed to be applicable in a general business and administrative work environment. Despite the pilots showing that the development process and format of the values assessment functioned sufficiently well, in further use of the instrument contextual validity would need to be incorporated by developing work scenarios specific to the targeted population's context.

Most of the scenarios and the answer options functioned well, and the respondents could relate to the scenarios. Just under half of the scenarios would probably need some revisions of the answer options. Only two scenarios presented significant difficulties in both the quantitative and the qualitative analysis. However, as recommended, a large-scale pilot should be conducted before discarding any scenarios. Rasch analysis is also recommended. The problematic answer options could, however, be strengthened before another pilot is conducted in South Africa. Piloting the instrument in both South Africa and other African countries could yield data on the scalability of the instrument in South Africa and the replicability of its use in other African contexts.

We contend that this initiative to develop an assessment tool for a work-based values intervention makes two unique contributions: first, it applies a work-based values approach to improving student socio-emotional skills; and, second, it applies a rigorous process to developing an instrument that assesses impact. To elaborate: in the first instance, the research focused on supporting the development of work-based values of young people to improve their chances of finding employment, and values, being part of a set of socio-emotional skills (such as awareness of other people's feelings) which underpin a worker's ability to succeed in 21st-century labour markets (World Bank, 2021). Second, although socio-emotional skills are acknowledged to play a role in employers' judgements of worker 'employability', much more attention needs to be given to testing their impact empirically. On the African continent, as Betcherman and Kahn (2017:3) point out, there are 'important knowledge gaps where research could inform effective actions to improve economic opportunities for the region's youth'. Without research evidence, the relevance and efficacy of interventions cannot be established but the '… good news is that the evidence on what works and what does not in skills development, and for whom, is growing …' (World Bank, 2021). As a response, this

empirical study opens a door of opportunity to understanding the contribution of work-based values as part of skills development to TVET students intent on seeking and retaining successful workplace employment.

The conception and methodology described in this article offer further opportunities for application. Since work-based values are applicable in all areas of preparing students for employment, the ideas could be applied across both general and technical and vocational curriculum streams, including apprenticeships, and could even be incorporated through work-based values programmes offered to lecturers and teachers for continuing professional development.

In our view, the work-based values approach put forward in this article has the potential to equip young people with the personal capability to negotiate relationships in the workplace and, as a result, improve their employability. This is a missing link in current thinking that, in our view, can be meaningfully resolved through the use and further development of valid and reliable work-based values assessment instruments such as those presented in this article.

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