







Rhodes University Research Chair Partnership Initiative for

M&E in a SETA Environment

Project 4 Developing a Cost Benefit Analysis Tool for evaluating work-based learning

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Executive Summary

As part of the Banking Sector Education and Training Authority (BankSETA) meta research project to support monitoring and evaluation in a SETA environment, Project 4 was aimed at supporting the evaluation of skills development through the development of a cost benefit evaluation tool. Initially proposed as a cost benefit analysis tool, informed by economic analysis, a systems approach to developing the tool led to it being reframed as a cost benefit evaluation tool.

This systems approach informing the development of the tool recognises the role of skills training and development in equipping learners with the potential to participate actively in the economy, and equally important, make a contribution to society as defined in the policy framework for post school education and training in South Africa, more broadly and work-based learning, more specifically. This systems approach resulted in an expansion of perspectives on costs and benefits beyond the scope of direct and financial costs and benefits determined in rand values. The tool also includes a focus on indirect, longer-term and non-financial costs and benefits. As a result the tool reflects both absolute monetary values associated with costs and benefits, in some cases the use of proxy values and in some cases where a rand value is not possible to determine, by either absolute or proxy value, qualitative descriptions are offered for benefits.

The tool was developed in the context of work-based learning, although it is also applicable for other skills development initiatives. Its development drew on the perspectives and experiences of researchers, monitoring and evaluation specialists and senior staff in SETAs, who through two iterations, made inputs into the role-players, activities and associated costs of facilitating work-based learning.

The tool is available at www.cbe-tool.co.za and generates useful insights into the costs and benefits associated with learning programmes that can be used in planning for improved efficiency, implementing for improved quality and reporting on learning programmes, comparatively from one financial year to another.

1. Introduction

Questions of costs and benefits of learning programmes often arise where the skills base is widely regarded as inadequate, despite a significant portion of fiscal budgets being allocated to skills training and development. Are we spending enough to make a real difference? Or are we spending too much, for less? To assist in answering these questions, the Banking Sector Education and Training Authority (BankSETA) commissioned the development of an evaluation resource for analysing costs and benefits associated with skills development programmes in 2018. Through interactions with researchers in various SETAs the online Cost Benefit Evaluation (CBE) tool was developed and released on 01 June 2020 at www.cbe-tool.co.za. Even though the tool was developed in the context of work-based learning, it can however be used for other skills development initiatives that SETAs convene, such as bursary awards or career guidance.

Our first instinct in developing the tool was to turn to economic theory of cost benefit analysis. However, as we considered the South African development context and the vision for post school education and training more broadly and work-based learning more specifically, we realised that this approach might be limiting, particularly when it comes to the benefits of learning beyond the skills training intervention. Through a systems approach we decided to move beyond the typical economic analysis of direct and financial costs and benefits to consider also those indirect and non-financial costs and benefits. This allowed us to develop a broader perspective on the costs and benefits of learning programmes.

Firstly, we recognised that four different stakeholder groups make a variable contribution directly or indirectly to the costs of work-based learning, including SETAs, Industry Associations, Host Employers and Training Providers. A further finding was that costs are incurred at different levels, some very directly like those associated with learner placement, mentoring and training, for example, and others less directly, like co-ordinating and managing programmes and developing induction programmes, learning programmes and materials. We further realised also that when one considers benefits beyond the training intervention, these accrue to the individual through his or her participation in the economy and the social benefits derived from employment. Benefits however also start to accrue directly within the economy as a result of increased spending and saving, for example by an employed individual. Through aggregation of these benefits we also realised that benefits also accrue at a higher level of contributing to society more broadly, for example, as employed individuals pay personal tax, national fiscal budgets increase and so do allocations to welfare services, which promotes increased human wellbeing.

These expanding perspectives on costs and benefits guided the development of the tool in three sections. The first section guides the user in developing a contextual profile within which to

understand the costs and benefits. The second part of the tool allows the user to think through and input the costs associated with the learning programme. Based on inputs into part one and two, part three generates reports on the contextual profile, the cost profile and the benefits associated with the skills development initiative, for the individual, the economy and society.

2. Background to the tool

At its 2019 National Skills Summit, the National Skills Authority (NSA) and the Department of Higher Education, Science and Technology (DHEST, formerly the Department of Higher Education and Training, DHET), shared the evaluation results of the third iteration of the National Skills Development Strategy from 2011 to 2016 (NSA, 2019). This was offered as a precursor to launching the new National Skills Development Plan (DHET, 2019). The then Minister of DHET, Naledi Pandor, noted that South Africa has a significant budget for post school education and training (PSET), compared to other countries in the region and the world, but seemingly, has less to show for it. The then Minister of Monitoring and Evaluation in The Presidency, Nkosasana Dlamini-Zuma, asked PSET roleplayers to undertake evaluations to show whether we are doing the right thing (referencing relevance and impact), and whether we are doing it right (speaking to effectiveness and efficiency). Perhaps in anticipation of these questions, a year prior, the Bank SETA meta project for strengthening monitoring and evaluation in a PSET environment was launched, involving DHEST and all 21 SETAs. One of the nine projects in this initiative was to develop a cost benefit analysis resource for evaluating SETA skills development initiatives.

The meta research project was managed by the Environmental Learning Research Centre at Rhodes University who contracted the World Wide Fund for Nature, South Africa (WWF-SA) in to lead Project 4 and the development of the cost benefit evaluation tool. WWF-SA has a 10 year history of convening work-based learning through internships. The scale of the programme is relatively small compared with work-based learning programmes in the SETA environment, with an initial 20 placements per year and increasing to 50 interns biennially since 2017 with funding from the National Skills Fund.

The smaller scale of this programme allows for a greater focus on what is generally argued as key quality inputs to work-based learning programmes, including: (i) relevant and appropriate placement in line with the career vision and academic training of interns; (ii) quality mentoring with one dedicated and trained mentor for each intern, each having the background and experience aligned with the interns placement, vision and background; (iii) strategic networking enabling the interns' access to key communities of practice through which their continued career development is supported and through they might access notice of and job placements in future; (iv) purposeful career planning and development, that focuses the intern on skills training and development needed now to realise the

career they envision; and (v) training in workplace skills, such as ethics, communications and relationships in the workplace and some practical skills like managing time and reporting for example, commonly cited by employers as lacking amongst new graduates. The programme further offers specific guidance on looking for a job, such as where to find notice of opportunities, preparing a curriculum vitae and cover letter, preparing for and guidelines for interviews and negotiating employment contracts (WWF-SA, 2019).

This relative smaller scale of this programme supports a high level of success in the programme in supporting new graduates into the workplace. Through an annual tracer study conducted in April 2020, employment amongst past interns stands at 87% (including 3 self-employed interns), 15% pursuing further studies, more than half at doctoral level and the balance at Masters level and only 3 of the respondent group of 70% of 128 past interns was unemployed at this time. Insights from this programme were drawn on in leading and developing the tool, recognising the smaller scale of the programme and the ability to focus on quality inputs in supporting learners to improve their skills for employability and ultimate employment.

3. A systems perspective

The South African policy framework sets an ambitious agenda for PSET and work-based learning with an explicit social agenda for collective action to improve the wellbeing of all South Africans. Policies in further and higher education (Department of Higher Education and Training, DHET, 2013; *ibid*, 2019) and economics (Economic Development Department, EDD, 2011a; 2011b) as well as the overarching National Development Plan (National Planning Commission, 2011) identify work-based learning as a strategy for improving the quality of education and training and developing active citizens, responsible for their own and collective wellbeing through participating in and contributing to the overall development of the country.

The National Planning Commission's National Development Plan (NDP) provides a 20 year vision for an inclusive, equal and sustainable South Africa by 2030 (NPC, 2011). As its highest priority the plan seeks to address high levels of poverty, unemployment and inequality. It calls on all social actors to contribute to writing a 'new story [in which] every citizen is concerned about the wellbeing of all other citizens, and the development of South Africa means the development of each and every one of us that lives here' (NPC, 2011 p4). The NDP sees education and training as central to long term development and establishing the foundations for an equal, inclusive and sustainable South Africa for all its people. It calls for increased linkages between education, training and workplaces to enable participation in the economy *and* contributions to society more broadly. This is echoed by the Minister of Higher Education and Training in the White Paper on Post School Education and Training: "The education and training system should not only provide knowledge and skills required by the economy.

It should also contribute to developing thinking citizens, who can function effectively, creatively and ethically as part of a democratic society. They should have an understanding of their society, and be able to participate fully in its political, social and cultural life" (DHET, 2013: viii).

In this broader vision of social, economic and cultural development, many other policies frame workbased learning. The Skills Development Act (South African Qualifications Authority, 1998), the White Paper for Post School Education and Training (DHET, 2013), the National Skills Development Strategy III (National Skills Authority, 2011) and its successor the National Skills Development Plan (DHET, 2019) provide the framework for quality provisioning of post school education and training that will prepare learners to participate in the development of the economy and to contribute to the improved social wellbeing of all South Africans. The White Paper for Post School Education and Training (DHET, 2013: xvii), talks of '... a transformed ... expanded and more diverse post school system ... integral to develop[ing] our country and improve[ing] the economic, social and cultural life of its people ...'. It similarly defines a key role for employers in providing opportunities for education and training (ibid: xviii). This emphasis on engaging employers in quality work-based learning for participation in sustainable economic growth and contributing to an equal and inclusive society is picked up also in economic policy such as the New Growth Path (EDD, 2011a) for restructuring the South African economy and expanding job creation, reducing poverty and eradicating inequality and its supporting National Skills Accord (EDD, 2011b) that outlines commitments from various social actors, such as businesses committing to increase internship and placement opportunities. The key theme of active economic and civic participation and contribution through work-based learning is reiterated in social policies like the Youth Employment Accord (Department of Economic Development, 2013) that defines targets for work placements to enable access to work and the development of '... young people who are able to realise their full potential and understand their role in making a meaningful contribution to the development of South Africa ...' envisioned in the National Youth Policy (National Youth Development Agency, 2015:5).

This policy framing of PSET and work-based learning was a key consideration in our conceptualisation of the CBE tool. Rather than limit our perspectives on the costs and benefits of work-based learning, we chose to consider also indirect costs. More importantly though, this context prompted us to consider the benefits of work-based learning beyond the immediate benefits of employment, and also consider the longer term and indirect benefits to the economy and society more broadly, aggregated as new entrants enter into the workplace.

4. From analysis to evaluation

As before, our first instinct was to turn to the economic evaluation method of cost benefit analysis (CBA). CBA gained popularity in the early 1900s and is still widely used to inform budgetary

allocations and decisions particularly in public service contexts like health, welfare and education programmes (Anderson and Hardwick, 2016; Persky, 2001; Posner & Adler, 1999).

As an economic evaluation tool, CBA is focused on quantifying costs and benefits in economic values (Rogers *et al*, 2009; Griffin, 2016) and comparing these as a ratio or percentage (Naess, 2006). However, we found the pure CBA approach to be limiting in that it does not allow a consideration of qualitative inputs and outcomes of work-based learning and wouldn't allow us to fully explore the tool with a systems view of participating in the economy and contributing to society, both immediately and also in the intermediate and longer term. Without wanting to lose the economic analysis that might be of interest to some programme planners and managers we developed the tool to retain a focus on economic value, but integrated also the use of proxy values and qualitative descriptions where the former two were not relevant and appropriate. With this approach we were able to do much more with the *evaluation* of costs and benefits, both in relation to each other and separately. We therefore came to describe the tool as a cost benefit evaluation (CBE) tool as an extension, rather than a complete abandonment of CBA. The CBE tool we believed provided the flexibility to deal with those costs and benefits which were less easily economically quantifiable.

We applied this expansion in our thinking about the tool from analysis (CBA tool) to evaluation (CBE tool) at three levels. Firstly, we used the classic CBA for those costs and benefits that can be determined in absolute economic terms, such as staff costs, advertising costs, learner administration costs, health care contributions, leave, remuneration benefits and increased spending of disposable income. These can easily be derived from remuneration data within different economic sectors and tax data available in the public domain and could generate a ratio or percentage as in classic CBAs. Secondly, we proposed the use of proxy values in the evaluation of costs and benefits that cannot be easily assigned an absolute economic value for example, the cost of time away from work due to attending a training programme and increased GDP as a multiplier of savings and investments. As in the first case, these too can be used to generate a classic CBA ratio or percentage but would be based on proxy rather than absolute values. Thirdly, we proposed the use of qualitative descriptors in the evaluation of particularly benefits that cannot be defined in absolutely economic or proxy values. For these we drew on a literature review to support the development of a legitimate argument of how these benefits could be linked to employment as an outcome of work-based learning (Griffin, 2016). Through this threefold framing of cost and benefits, we expanded the focus in the tool, from a purely quantitative economic analysis to qualitative evaluations, which can be argued to sit on the other side of the evaluation spectrum, with the use of proxy values in between, from cost benefit analysis to cost benefit evaluations, and a CBA tool to a CBE tool.

5. Methodology in developing the tool

We approached the development of the tool through collaboration with the SETAs through the Collaborative Research Working Group, to draw on existing experience and practices, together with our own experiences in the WWF-SA Environmental Leaders Internship Programme. In this way we could also ensure that the needs and requirements of SETAs in using the tool and undertaking these evaluations would be addressed. The tool was developed over a period of fourteen months, starting in March 2019 with the final release on 01 June 2020. The development process drew on SETA inputs, at different times, through different processes and to inform different aspects of the tool.

5.1 Scoping work-based learning programmes in SETAs

The project was first introduced to SETAs at a CRWG meeting in June 2019. At this meeting, an overview of the project was provided with an outline of the time frames and the plans for engaging SETAs. SETAs were requested at this meeting to make the first round of inputs through a scoping questionnaire. The questionnaire aimed to provide insights into the nature and scope of work-based learning.

A questionnaire focusing on (i) the nature of work-based learning (ie. internships, learnerships, apprenticeships, skills training programmes); (ii) the nature of learners (ie. unemployed, preemployed, matric, graduate, in-service), (iii) host employers; (iv) the size of programmes in terms of number of learners; (v) costs associated with programmes broadly; (vi) intended outcomes of work-based learning; (vii) evaluation of work-based learning; and (viii) the impact of these initiatives relative to the intended outcome. The questionnaire is attached as Annexure A.

Nine SETAs responded to the questionnaire, circulated through the convenors of the CRWG, including, Bank SETA, CHIETA, EW SETA, F,P&M SETA, H&W SETA, LG SETA, PSETA, Services SETA and TETA, and reflect that:

- Most SETAs work across the spectrum of types of work-based learning programmes including internships (for qualification, registration and otherwise), learnerships and apprenticeships.
- Learners participating in work based learning programmes include unemployed, pre-employed and employed individuals, at both graduate and matric level. Internships appear to focus mainly on students requiring work integrated learning for qualification. Some reference is made to pre-employed learners assumed to be those who require placement for professional registration. Learnerships typically appear to focus on matriculants and learners with a lower qualification.
- Programmes vary in length from three months up to three years, with internships and learnerships being mostly 12 months.

- Internships appear to mostly provide work-based experience for professional registration of already qualified individuals and qualification. Most internships focus on technical skills related to the SETAs economic sector, but in some cases also include generic corporate skills like human resource management, information technology in a processing and manufacturing context. Learnerships focus mainly on occupationally directed qualifications of the SETA, predominantly between levels 2 and 5 on the National Qualifications Framework (NQF).
- Internships vary in the number of participating learners, mostly between 250 and 300. Others
 include a significant variance in the size of cohorts ranging from 150, 900 and 3000 learners in
 one case. Learnerships appear to include higher numbers than internships, with numbers
 varying from close to and over 1000 and up to over 3000, 4000 and 12000 in one case.
- The purpose of work based learning is to increase employability, employment and skills development for increased productivity. Work-based learning for qualifications was a lesser focus. Only one respondent references broader socio-economic wellbeing facilitated through increased employment.
- Most evaluations of work-based learning in the SETAs focus on the employment of learners.
 Few respondents make reference to increased and strengthened skills and consequent productivity, beyond placements, perhaps indicating the challenge of defining longer term benefits.
- Employment and retention of learners placed with employers varies quite significantly both within and across sectors. One learnership stream in a SETA shows an employment rate of 85% and another of 29%. In learnerships, these achievements are expressed as a percentage of learners who had completed learning programmes, and does not account for those learners who had enrolled and not completed the programme.

These insights were used to further engage with SETAs and in defining varying fields within the tool, for example drop down menus for the kinds of learning programmes and the period of learning programmes, amongst others.

5.2 SETA case studies of work-based learning

Within a limited time frame and budget for this project, we were unable to undertake an in-depth engagement across all 21 SETAs. A second purpose of the questionnaire-based scoping exercise, as in 5.1, was to identify case studies for more in depth exploration of approaches to work-based learning, to identify related activities and associated costs and also get some insight into what benefits are anticipated as outcomes.

Based on responses to the questionnaire, we selected five case studies (in addition to the WWF-SA environmental sector case) that represented contextual diversity in (i) different economic and social

sectors, including banking, environmental, health and welfare, services and processing and manufacturing; (ii) different types of learning programmes, namely apprenticeships, learnerships, internships, studentships and in-service skills programmes; (iii) different learners, either employed or unemployed, with completed school leaving certificates, currently engaged in PSET and requiring work-based learning for qualification, as well as graduates, including those seeking professional registration. During engagement with the chosen cases, further variability emerged, such as the intentions of work-based learning, the facilitation of programmes and the geographic spread of placement, all of which have cost implications. To build this diversity into the development of the tool, we further investigated these cases of work-based learning through building up a contextual profile for each case through questionnaires and interviews with work-based learning practitioners.

Building on the initial scoping questionnaires, we explored work-based learning in more detail to help us better understand the activities associated with work-based learning, related costs and intended benefits as outcomes. These contextual profiles were built up around eight questions, including the kinds of learning programmes, the length of the programme, the profile of learners, the scope of the programme in terms of the number of learners who applied, enrolled and completed programmes and their throughput into employment, the costs of learning programmes and interactions that enable the placement and learning through these programmes.

At this point we had realised that context was important to understand the relevant scale, activities and associated costs of learning programmes. These profiles came to inform the first part of the tool, developing a contextual profile of the learning programme and its learners (see section 6.3) to better understand the associated costs and benefits.

Another key insight evolving at this time was the multiple stakeholders engaged in facilitating learning through work-based learning. This included (i) SETAs, (ii) formal and informal industry organisations who co-ordinate sector or subsector based programmes, for example in the case of Services SETAs Labour Recruitment skills development programme co-ordinated by the Confederation of Associations in the Private Employment Sector (C.A.P.E.S) and the WWF-SA cross sectoral internship programme, (iii) host employers with whom SETAs sometimes engage directly for the placement of learners, such as public sector employers registered with Health and Welfare SETA (H&W SETA) and private sector institutions registered with Fibre, Processing and Manufacturing SETA (F,P&M SETA); and (iv) training providers who offer the formal, theory based components of learning programmes like the University of the Witwatersrand as in the case of the Services SETA learning programme and a variety of Bank SETA skills development programmes and various Technical and Vocational Education and Training (T.V.E.T) Colleges involved in the F,P&M SETA's learning programmes. An additional insight emerging at this point in the process, was the different roles and activities

undertaken by these different stakeholder groups and the varied approaches through which workbased learning is facilitated.

These multiple stakeholders, multiple roles and activities became important considerations informing the development of the tool, and particularly the cost section of the tool (see 6.4) to accommodate the broad scope and diversity of work-based learning and other skills development programmes across the 21 SETAs similarly reflecting a broad scope of diversity in the type of economic sectors that they represent.

5.3 Mapping activities and outcomes

At this stage in the project we started to get some idea of the activities involved in facilitating work-based learning that would have certain cost implications. Feeling primed to start developing the tool, we felt we needed a bit more insight into SETA perspectives on the benefits of work-based learning. Up to this point the primary benefit cited was increased skills, increased employability and employment. Very few references were made to increased productivity in individual organisations or economic sectors and no reference made to the longer term benefits as envisaged through the policy framework as in section 3 above.

Drawing on the theoretical framing of realist evaluation (Pawson & Tilley, 1997; Rogers, 2008; Brousselle and Buregeya, 2018) we started mapping out the key activities from the WWF-SA programme that we believed added quality to the programme. These included quality placement (Smith et al, 2019; Billet, 2001), quality mentoring (*ibid*; Fleming, 2015), workplace skills training (Billet, 2001; Bates et al, 2018) and networking (Billet, 2001; Fleming, 2015). To this we added those activities cited by SETAs and their associates, such as CAPES, the Services SETAs partner in training labour consultants, in our interactions with them.

We represented these activities diagrammatically linking these to the immediate outcomes (such as increased skills, employability and employment) cited by the SETAs and also the broader outcomes that we were uncovering in literature, such as introduced in section 4 above and further expanded in section 6.4, as outcomes of training and development more broadly, applied within the work-based learning context that we were working with. What realist evaluators call an outcomes map (Coryn et al., 2011; Jones & Hearn, 2009), through this exercise we were trying to get better insight into the causal links between the activities (inputs) and their cost implications and the outcomes, immediate, intermediate and long-term to start exploring the potential benefits of work-based learning, with the policy vision outlined in section 3, above.

Using this outcomes map, we invited further inputs from some of the SETAs on the activities (inputs) and their associated costs and potential benefits of work-based learning. This discussion significantly expanded our perspectives on costs and benefits which we were able to integrate into the CBE tool.

5.4 The technicalities of developing the tool

Drawing on our collective experiences of work-based learning offered through SETA consultations individually and through the CRWG, all perspectives offered by SETAs through the case study consultations as in section 5 above and insights emerging from these interactions, we embarked on the development of the tool.

Not wanting to lose the economic and relational cost benefit dimension of the, we engaged with two Economists to guide the development of the tool. We found these engagements of particular value as we worked to bring together quantitative, economic values and the more qualitative perspectives on costs and benefits. These interactions were key to informing our three tiered approach to defining costs and benefits, using absolute economic values, proxy values together with qualitative descriptors. Having developed a framework for what we thought the tool might look like we presented our ideas at the CRWG meeting in July 2019, for comment and further inputs on the proposal. Confident and with a good sense of where we were going with the development of the tool, we started our consultations with the online tool developers to bring our ideas to fruition. What for us appeared to be a relatively easy task of translating our ideas into the online platform did however prove to be more challenging. As we worked through the different components of the tool, we realised the significant volume of back end data that would be needed to cost inputs into work-based learning, given the highly diverse economic sectors and costs related in this context. For example, to determine staff costs for their inputs into various activities related to work-based learning, required back end data on staff salaries across 21 SETAs, within the different and diverse chambers and sub-sectors and at different staff levels, such as senior and middle management and entry, junior or administrative level. mammoth task was undertaken over a six week period by P-Net Human Resources Consultants.

What was initially proposed as a six month development period for the tool, took a lot longer than anticipated. However, we were committed to develop a tool that was of value and useful for SETAs to undertake the kind of evaluation that it intended. The development of the tool took 3 months longer than initially planned, with the first full release to SETAs on 09th April 2020 at a formal online launch. SETAs were invited to provide feedback on the tool at the launch as well as through an open comment period until the end of April 2020. The first released received many accolades from SETAs, with a few comments on adding a user guide to the tool and expanding certain fields in the tool, for example, including bursaries in the drop down of learning programme types, expanding the periods in

the drop down to accommodate for programmes longer than 24 months, as some examples. These comments informed the finalisation of the tool for final release on 01 June 2020.

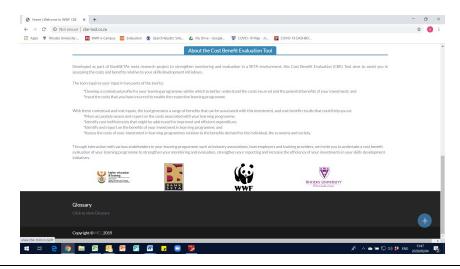
6. Overview of the tool

The tool was developed around three key sections. The first, with guiding questions allows the user to create a contextual profile for the learning programme. The second allows the user to input various costs related to the learning programme and the third section generates reports for the contextual profile, cost profile and the benefits profile of the learning programme. Various emerging insights through the development of the tool informed the scope and structure of the different sections. These three sections are preceded by a landing page, a log in function and dashboard that records details of multiple evaluations undertaken.

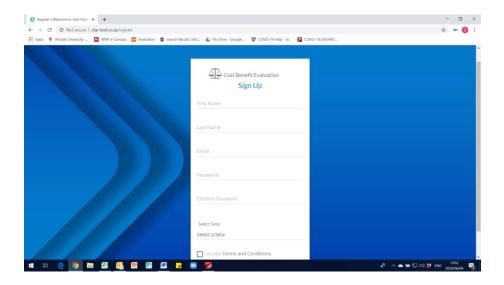
6.1 Landing page

The landing page provides a short background to the tool and overview of the different parts, as shown below.



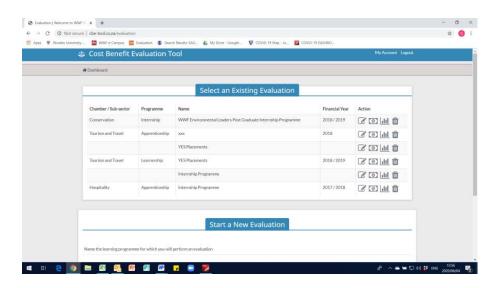


From this landing page, users create an account and user profile that includes a selection of their particular SETA. This is significant in that it then pulls through all relevant back end data related to the SETA with which the user registers.



6.2 Evaluation dashboard

Once the user registers they are prompted to *Perform a Cost Benefit Evaluation*, as on the landing page. A first time user would be taken straight to a window to *Start a New Evaluation*. A repeat user has the option to *Start a New Evaluation* or to go back to and continue working through or editing an existing evaluation, which appears on a dash board. The dashboard shows the chamber or sub sector for which the evaluation has been undertaken, the kind of learning programme, the name of the learning programme and the financial year in which the learning programme was undertaken. These details are captured when the user starts a new evaluation and develops the contextual profile for the learning programme. All evaluations undertaken by the user is listed in the dashboard, allowing also for a comparative analysis across different learning programmes.

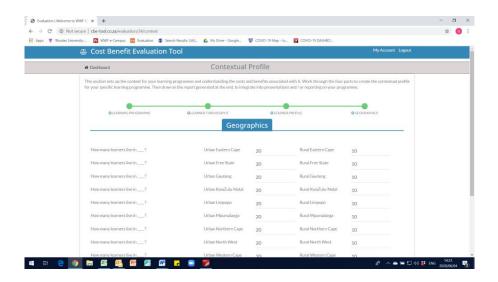


The icons on the far left of the dashboard under the heading Action, allows the user to go to a specific point of the tool, to make these further inputs or edits. The first reflecting pencil in the icon takes one to editing the contextual profile, the money note takes the user to editing the cost section and the graph takes one to the reports section. There is also an option for deleting an evaluation, as in the dustbin icon.

6.3 Contextual profile

Starting a New Evaluation starts to develop the contextual profile for the learning programme and generates the summary details for the dashboard as in 6.2 above. The contextual profile has 4 parts, namely:

- 6.3.1 Learning Programme, which includes details of (i) the chamber or sub sector in which the learning programme was undertaken, drawn from a drop down menu that pulls through from the SETA of registration as in the user profile, (ii) the type of learning programme selected from a drop down of different kinds of learning programmes like apprenticeships, learnerships, internships, amongst others; (iii) the year in which the learning programme was undertaken also selected from a drop down menu; and (iv) the length of the learning programme, similarly selected from a drop down.
- **6.3.2 Learner throughput,** indicating (i) how many learners applied for, started and completed the learning programme; and (ii) how many of these who had completed are employed, self-employed or engaged in another economic activity.
- **6.3.3 Learner Profile,** including (i) the employment status of learners as they came into the programme; (ii) the race and gender demography of learners; and (iii) the number of disabled learners, which are often useful profiles to have on hand for any reporting processes.
- 6.3.4 Learner geographic spread. SETA reporting processes often require an indication of the impact or footprint of skills programme across South African provinces and in urban and rural locations. This section of the tool allows the user to create this geographic profile of learners for each province, disaggregated by urban and rural centres, as below.

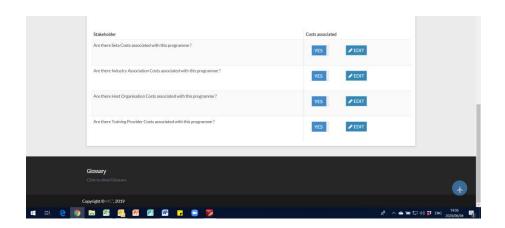


6.4 Costs of learning programmes

Costs of learning programmes are organised in the tool at four different levels that the user works through to input and calculate the costs of their learning programme. Not all cost fields will apply to a learning programme, and so the user chooses which of these costs have been incurred in their particular programme, and makes the inputs accordingly.

6.4.1 Level 1: Stakeholders

As in section 5.2 our interactions with SETAs reflected a number of stakeholders involved in facilitating work-based learning, including SETAs, industry associations, host employers and training providers. Not all stakeholders are involved in the same way in all learning programmes and so the user makes a choice at this level as to who is involved in their learning programme and the relative costs that they incur.



The tool opens up with the button on *No*, which the user then changes in the event that they have activity and cost contributions from this stakeholder. Changing the button to *Yes*, takes the user to the second level of categorising costs.

6.4.2 Level 2: Cost categories

Our interactions with SETAs showed a diverse range of activities involved in facilitating work-based learning. Initially we had identified only those activities that directly relate to the learning and development of learners like mentoring, networking, training costs for example, and overall management, co-ordination and administration of the learning programme. Our interactions revealed many more costs incurred in facilitating work-based learning, particularly in the SETA context where large numbers of learners (up to 3000 learners in some cases) are recruited and enrolled on programmes. Some of these costs include for example, calling for expressions of interests from employers to host learners and all administrative activities and costs related to this like contracting and managing payment disbursements and contracting in providers who provide learner support and support the administration of large volumes of data related to learners. This broad scope of diverse and different activities and costs required an organisation of costs into four categories, namely:

- Programme Infrastructure costs involve those associated with the overall management, coordination and administration of work-based learning, like managing learner recruitment across a
 sector wide programme, engaging with host employers to ensure clarity on the role that they will
 play in hosting learners amongst others. These specific costs are outlined below in section 6.4.2
- Training and Development costs are those associated with assessing training needs, planning and development of programmes in response to these needs and facilitating the actual training, including any induction of learners.
- Learning Interactions and associated costs are those incurred for mentoring and learning interactions like participating in conferences, learning exchanges, seminars and workshops for example.
- Direct Placement and associated costs are those directly related to the learners placements, such
 as stipends or salaries and direct capital and operational costs that enable the learners work, such
 as computers, tools, gear, consumables as some examples.

As with the stakeholder selections, users choose which of these cost categories are relevant to their own learning programme, in which they have incurred costs. The same principle as with stakeholders apply (see section 6.4.1), where the page opens with a *No* button relative to each cost category, and if

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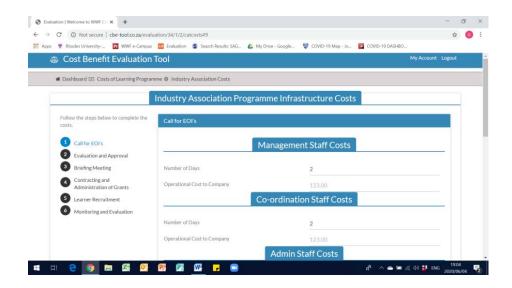
relevant to the learning programme being evaluated, the user chooses Yes, or otherwise passes over this category. Once the user selects Yes, future returns to this page provides an option for editing to add any additional costs or amend inputs previously made.

6.4.3 Level 3 and 4: Activities and associated costs

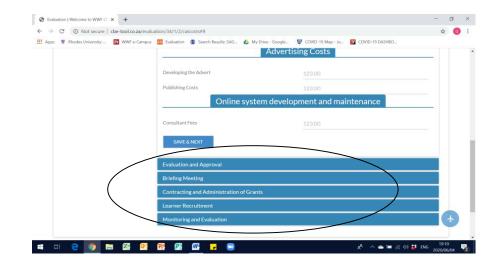
During consultations various activities were identified within these broad categories of costs, with associated costs. As before, the user chooses those activities relevant to their learning programme and is guided through making specific cost inputs relative to these activities, as they are relevant to the user's learning programme.

The following frame for Programme Infrastructure, the same across all stakeholder groups, shows the activities within this cost category on the left side, namely: (i) call for expressions of interest to either co-ordinate a larger work-based learning programme or to host learners with employer organisations; (ii) evaluation and approval of these calls for expressions of interest; (iii) briefing meetings typically convened to talk service providers and hosts through the details of programmes; (iv) contracting and administration between the SETA or industry association for example and service providers, training providers or host organisations who will co-ordinate or place learners; (v) learner recruitment for placement and (vi) monitoring and evaluation. Clicking on any one of these activities, opens up a set of related costs in the main frame, for example management staff costs, co-ordination staff costs and administrative staff costs, advertising costs lower down and online system development and maintenance. These are all possible costs associated with programme infrastructure. Again the user selects those activities and inputs the costs as they are relevant to their particular learning programme. For some users, some of these fields will remain blank if they don't apply to that particular learning programme.

A decision was made to disaggregate staff costs for management staff (also referring to senior level staff as in the user guide – see section 6.4.4), co-ordination staff (also referring to middle management level) and administrative staff costs (also linked to junior or entry level staff) given the salary differences across these levels, and recognising that activities might draw in these different levels of staff into different activities, in different ways. For example, in house legal counsel might spend a bit of time drafting contracts for service providers or host organisations. He or she might be supported with a significant amount of time spent by an administrator. A middle manager might be more involved in briefing meetings with administrative support and less input from management. This disaggregation allows for the variance in processes across and within all SETAs. Staff costs are also the dominant cost across all activities in the tool, and the same disaggregation is used throughout.



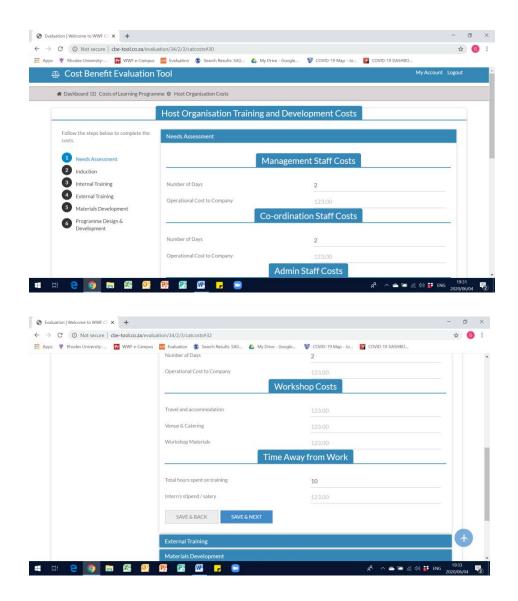
The bottom blue bars, as indicated in the frame above also allows for navigation across these different activities.



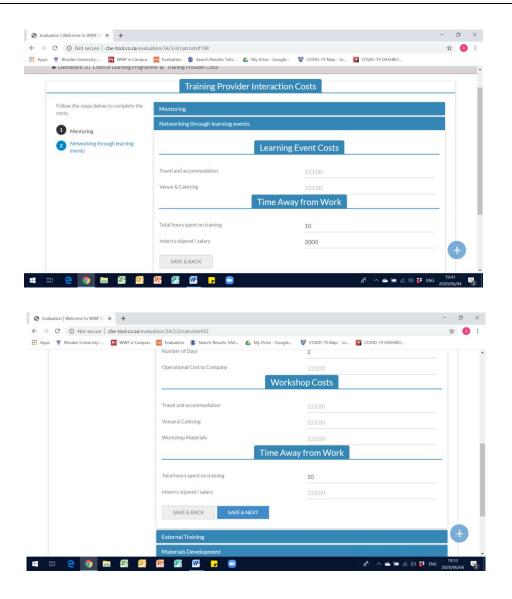
Each cost, as in the main frame is further disaggregated for inputs that enable the calculation of that cost. For example, all staff costs are made up of the total number of days spent by that level of staff member on the programme. The relevant salary level is drawn from the back end data of the tool, which computes the pro rata share of this these staff salaries apportioned to their inputs into this learning programme. In other cases, the user has to make direct cost inputs, as in the case of developing the advert and having it published in a newspaper for example.

This same principle in layout applies for activities associated with training and development, including (i) needs assessment; (ii) induction of learners; (iii) internal training; (iv) external training if an external

provider is used; (v) materials development; and (vi) programme design and development. For these costs the staff costs are again evident in the main frame, with additional costs for other activities, such as workshop costs for internal training and time away from work as an indirect cost as in the second frame below.

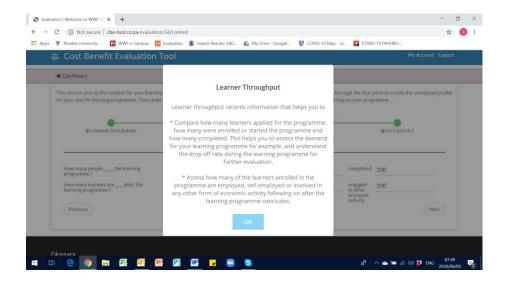


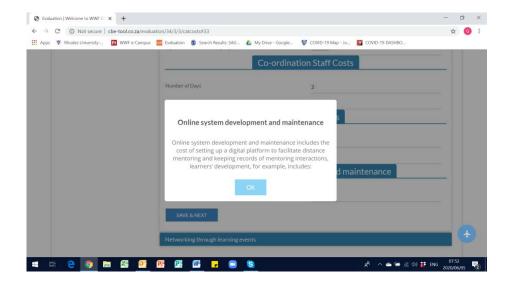
This disaggregation applies also for mentoring and networking as activities in the *Interactions* category of costs and learning administration, learner support and direct placement costs in the Placement category of costs, as reflected in the frame below.



6.5 Users' guide

The tool has a users' guide that explains various aspects of the tool throughout. This is perhaps most relevant in relation to the cost section, as it explains the various aspects of costs to assist the users inputs. The user guide is in the form of a pop up window, when clicking on any aspect for clarity. For example, a click on *Learner Throughput* in the *Contextual Profile* section of the tool brings up a pop up window which explains this aspect of the tool, as below. Similarly, clicking on *Online system development and maintenance* in the *Costs of Learning Programmes* section of the tool brings up a pop up window which explains this aspect of costs.





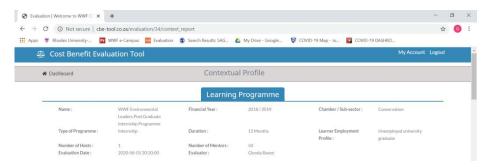
6.6 Reports generated by the tool

The benefits report is generated at the end of the tool, together with the contextual profile and cost reports. As such, it does not require any inputs from users, but draws on inputs from the contextual profile and costs to generate this benefits report. The user has the option to save these reports in a PDF format and save for future use. This final section of the tool, offers 3 reports:

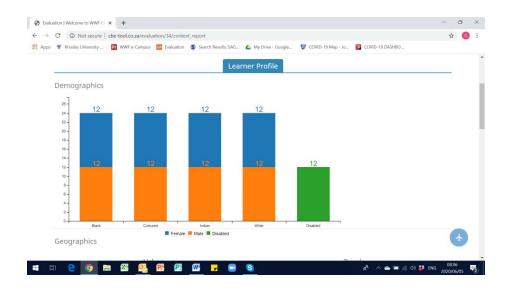
6.6.1 Contextual profile report

Various graphs are generated in this contextual profile report drawing on the information that the user has entered, including:

a short summary of the learning programme details;



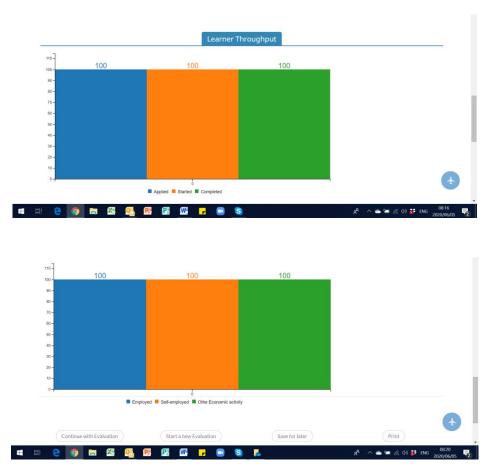
a bar graph showing the gender and race demography together with disabilities;



two pie graphs showing the % split of learners across the nine provinces, one reflecting the spread
of learners in urban centres and the other the spread of learners in rural centres across the
provinces – hovering over any one of the province segments reveals the actual numbers of
learners in either urban or rural centres in the province;



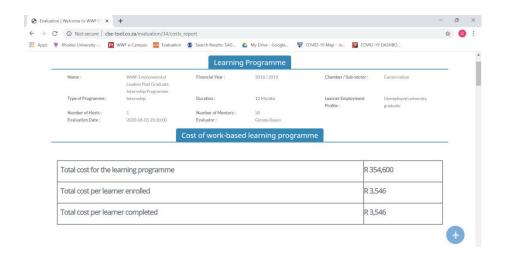
two bar graphs showing learner throughput, the first showing comparative bars of learners
who applied for the learning programme, enrolled for the programme and completed and
the second showing comparisons between the number of learners who are employed,
self-employed or participating in other economic activities after completing he learning
programme.



These are useful graphs to use in any reporting processes, even outside of reporting on costs and benefits.

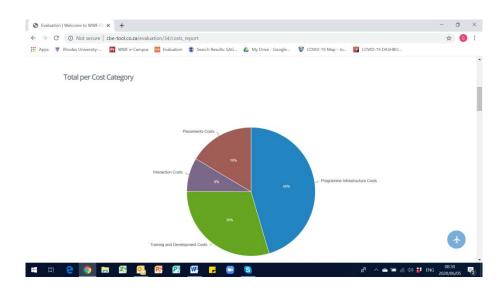
6.6.2 The cost report

The cost report starts with the same summary details of the learning programme as with the contextual profile report, and then offers a summary of costs, as a total cost, the cost per learner enrolled and the cost per learner who has completed the learning programme.

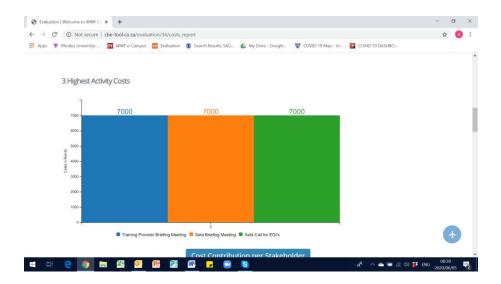


This summary is followed by various aspects of costs which we thought would be worthwhile considerations in evaluating the learning programme, including:

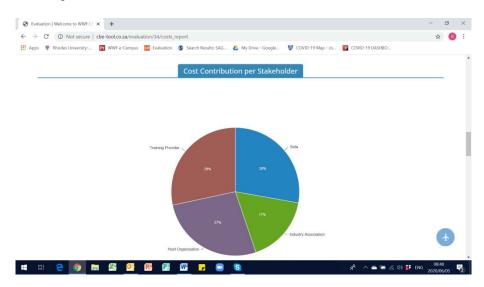
the total cost of the learning programme per category of cost, for programme infrastructure, training
and development, interactions and placements, as reflected in the graph below – as before,
hovering over the segment brings up the total amount in rand value;



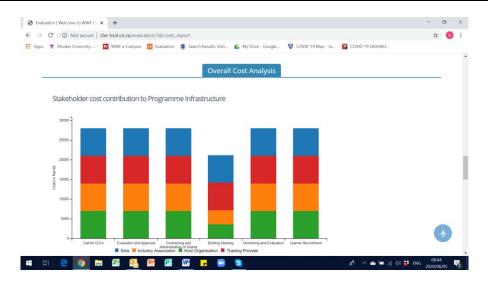
the three highest activities costs have been included in this report to assist SETAs in identifying
those areas where cost inefficiencies might occur – alerted by this graph, the user will have to
undertake a further investigation of why these costs are the highest, which could be a duplication
of activities across stakeholders, or costs of activities that could be internalised rather than
contracted out;



 a pie chart offers a basis for comparison of the cost contribution made by the four different stakeholders, that could also be used to assess possible cost inefficiencies, with a hover over the segment showing the actual rand value;



• this cost contribution is further disaggregated in four bar graphs that follow to show the cost contribution of each stakeholders to each of the activities within the four cost categories, as in the example below of the proportional cost shared by SETAs (the blue section of each bar), industry associations (the orange segment), host employers (the green segment) and training providers (the red segment of the bar graph) of each of the six activities in the category of programme infrastructure.



As with the contextual profile reports, these cost reports could also be used for purposes beyond evaluating learning programmes and can provide useful insights into cost efficiencies across activities related to learning and skills programmes.

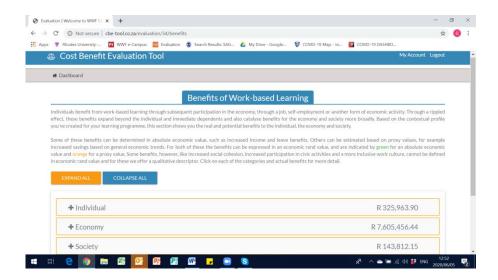
6.6.3 The benefits report

As in section 3, a systems view of post school education and training and work-based learning in the South African development context shaped our perspectives on costs and benefits. This broader perspective significantly shaped the benefits section of the tool, presented as a report, together with the contextual profile and cost reports. An introduction to the benefits report describes that:

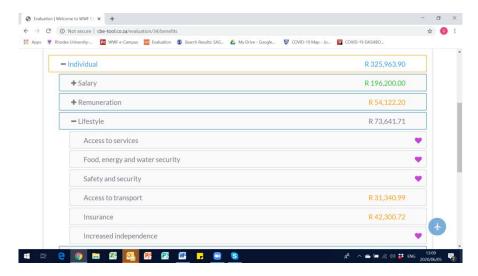
Individuals benefit from work-based learning through subsequent participation in the economy, through a job, self-employment or another form of economic activity. Through a rippled effect, these benefits expand beyond the individual and immediate dependents and also catalyse benefits for the economy and society more broadly.

The benefits report is structured around three sections, namely benefits to the individual, the economy and society. Each section expands to reveal the benefits at each of these three levels.

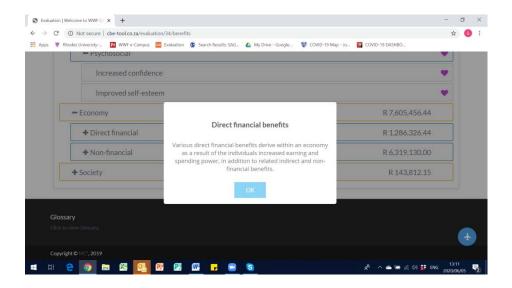
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Benefits are presented in either absolute economic value (indicated by a green rand value) or as a proxy value (indicated by an orange rand value). A purple heart indicates a qualitative benefit that can't be expressed in monetary terms.



Clicking on the benefit reveals the description, which is of particular relevance in the absence of a green or orange rand value.



• Individual benefits includes:

- salary benefits, based on income earned and that can be allocated to spending and savings;
 (ii) remuneration benefits which are those additional benefits that employers might offer, like medical aid, pension schemes, leave benefits;
- lifestyle benefits which derive from better access to goods and services and translates into a better quality of life and wellbeing;
- employment benefits which don't only accrue in the short term for example through employment, increased employability, increased skills for example, but also how these benefits establishes the individual for the future;
- social benefits such as establishing oneself as a positive role model within ones family or in society more broadly, lower risk of participation in anti-social behaviour such as theft, drug abuse, for example;
- psycho-social benefits derive from a greater sense of worth which the individual derives from working and making a contribution to the lives of their immediate family and tax contributions for example, that could manifest as increased confidence and a sense of self-worth;

- Benefits to the economy include direct financial benefits such as contributions to GDP through increased individual spending, which potentially stimulates economic growth and could lead to the increase in jobs and employment and increased investments for example through increased individual savings. It also includes non-financial benefits such as increased productivity which is reflected as a proxy value, and also more qualitative non-financial benefits, like for example, improved skills that could lead to increased mentoring and so stimulates a culture of learning in the organisation, leading to stronger organisations.
- Benefits to society are mostly qualitative in nature as these accrue through benefits to the individual and the economy and over a longer time. Some of the quantitative benefits to society, expressed as proxy values are for example and increase in state income due to increased personal income tax payments by those additionally employed following participation in learning programmes. This leads to qualitative benefits of increased welfare services as a result of increased fiscal budgets, for example. Other qualitative benefits are decreased unemployment and decreased poverty, not only for those who work as a result of participation in learning programmes, but also those employed as a result of growing and thriving economy, when more people work, earn salaries and are able to spend to increase GDP and the demand for more goods and services, indicating this rippled effect of benefits of learning programmes.

7. Use of the CBE tool

The CBE tool was developed to assist SETAs in evaluating their skills development programmes. In taking a systems view in thinking about costs and benefits and ultimately the design of the tool, a pure economic analysis of costs in direct relation to benefits is not possible. Because of the inclusion of indirect, non-financial and qualitative benefits, these are not directly comparable with absolute economic or proxy based rand values. This does however not compromise the value or usefulness of the tool in supporting evaluations of skills development initiatives. `

The CBE tool provides the user with a platform through which to develop a contextual profile for any learning programme undertaken within the SETA. It further takes the user through a guided process of thinking through and recording all costs associated with learning programmes. With these inputs, the tool generates a list of benefits that are derived from learners entering into and becoming active participants in the economy. As learners enter into the economy this catalyses a range of benefits beyond those experienced by the individual and his or her dependents, to benefits that also accrue to the economy and society more broadly.

Reports generated through the tool are useful beyond the evaluation of individual learning programmes. It also provides insights that:

- can be inform all reporting processes within the SETA, for example integrating the contextual profiles into organisational reporting;
- allows for a comparison between learning programme initiatives, for example, comparing profiles of learners in a learnership with those in an apprenticeship, which can also be used in reporting processes;
- allows for an assessment of costs incurred in learning programmes, and guide the user towards cost inefficiencies, which can be addressed going forward;
- offers a wide range of benefits on which to draw in reporting processes, about learning programmes, but also more generally in the SETA environment.

In addition, insights developed through using the tool, also prompts the user into thinking more carefully about the suite of activities that might best support learning programmes, generally and work-based learning more specifically.

Following an initial six months during which the tool will be hosted by the developer to address any issues experienced by users, the hosting and maintenance of the tool will transfer to the Department of Higher Education, Science and Technology. With significant inputs into the development of the tool, SETAs as the owners of this tool are encouraged to use it for the purposes of monitoring and evaluation to strengthen the outcomes of our skills development initiatives in relation to the investments we make to build skills that support the socio-economic development of South Africa and the wellbeing and prosperity of all her people.

Annexure A: Scoping questionnaire for work-based learning in SETAs

Project IV - Cost Benefit Analysis Tool for SETA Activities

Guided by WWF, South Africa

Questionnaire I

Background

Inadequate skills, both quantitatively and qualitatively, is cited as a significant constraint to social and economic development in South Africa. Despite a considerable portion of the fiscus, much effort and goodwill being invested in post school education and training, the outcomes are considered to remain inadequate. SETAs are important roleplayers in the post school education and training, and whereas many other factors play a role in insufficient jobs, high unemployment rates and compromised economic wellbeing, they share the responsibility for improving the effectiveness, efficiency and impact of skills development in South Africa.

Through a DHET, Bank SETA and Rhodes University collaboration, strengthened approaches to monitoring and evaluation is being explored to better understand the outcomes and impacts of SETA activities and investments in skills training and development at post school level.

One of these projects involve the collaborative development of a cost benefit analysis tool for SETA activities, to assess outcomes and consequent benefits of investments in work-based learning and other activities in the SETA environment. It aims to engage with SETA participants to develop a systems-oriented cost benefit analysis tool through which to evaluate financial and direct as well as non-financial and indirect costs and benefits associated with SETA activities towards the ultimate aim of shedding light on efficiency, effectiveness, outcomes and impacts of these activities.

Request

To facilitate an initial discussion towards the aims of this project, you are kindly requested to please complete the following questionnaire and return it to Rakal Govender, Deputy Director: Research (DHET) by return e-mail at govender.r@dhet.gov.za by **Friday**, 21st **September 2018**.

Hoping for your participation in what will be an exciting project and thanking you in advance.

Respondent	Name	and
Surname		
Your SETA		
Your designati	on	

DEVELOPING A COST BENEFIT EVALUATION TOOL FOR SETAS

#	Question	Your response				
1	Question What is the nature and scope of workbased learning and bursaries in your SETA for this current or past financial year?	What is the nature of work-based learning in your SETA – mark the appropriate block with an X. Briefly and generally describe the programme, who are the beneficiaries, where are they placed / studying, etc. How many learners do you support at	Your responded in the second s	Learnerships	Bursaries	
2	your investment	each level? What is the unit cost of your investment or total cost if unit cost is unknown? intended outcomes of in these programmes? ou evaluate these their outcomes?				
4	What do your e	valuations show? What g? Etc.				

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