Work-based learning as a means to foster lifelong learning: views of Education Stakeholders in Eswatini

Dlamini P. S., Mahlalela J. Rugube T.T, Mthethwa-Kunene K. E, Maphosa, C.

Institute of Distance Education, University of Eswatini

Abstract

One of UNESCO's advocacy messages states that ‘lifelong learning for all is the most appropriate philosophy, conceptual framework and organising principle for learning, education and training in the 21st century’. To ensure innovative and resilient employees, companies need to integrate lifelong learning into their operations. Investing in upskilling and reskilling employees across all gender has a potential to close the ever-increasing workforce skills gap in the complex business setting. Actively learning new skills and technologies by employees is mandatory to align with sustainable development goal No 4. Work-based learning is one approach that has increased access to higher education for working adults in many parts of the world. Though still not common in Sub-Saharan Africa, this approach resonates well with the 21st century demands for skilled workforce, innovation and educational resilience. This paper discusses views of Thirty-two (32) Education stakeholders who participated in the Survey on the importance of introducing a work-based learning approach using the distance education mode to upskill industry employees at the University of Eswatini. Survey questions were sent to stakeholders and document analysis on Work-based learning as a means to upskill the workforce in engineering was done. The findings showed that stakeholders embraced work-based learning as an approach to create a skilled workforce but policies have to be in place for effective implementation.

Keywords: work-based learning, lifelong learning, upskilling, reskilling

1. Introduction

Education has become an important factor in the development of an individual's livelihood in modern societies. That being the case, it has resumed the status of being a fundamental human right the world over. Investing in education therefore, is a critical aspect to ensure a well skilled workforce that would remain relevant in the competitive world. The main objective of investing
in education is that it has proven to be the foundation of human capital formation that has a positive impact on the economy. Moreover, knowledge, and skills acquired by individuals could be transferrable to others resulting in better socio-economic status (UNESCO, 2016). This has given rise to the concept of lifelong learning that underscores the value of continuously offering individuals flexible opportunities to improve their knowledge, skills and competencies over their lifetime (International Labour Organisation, 2018). Notably, lifelong learning is embedded in a complex ecosystem that requires collaborations among key stakeholders for it to thrive. This involves; governments, employers, workers and education institutions (ILO 2019, pp 31-32). This paper explores the views of Eswatini education stakeholders on work-based learning, as a means of upskilling the workforce in engineering and fostering lifelong learning in the industries for economic growth.

What is lifelong learning?

Before we get the potential of work-based learning as a means of ensuring a highly skilled workforce society, let us start by a brief description of what lifelong learning entails. Orlović Lovren and Popovic (2018) hold that the definition of lifelong learning depends on to the context and purpose to which it is used. This means that different people in their contexts can interpret lifelong learning differently. In general, lifelong learning refers to all kinds of education and training during a lifetime, which includes basic education and training and adult education that occurs after an individual has had initial training (ILO 2019). On the same note, Bélanger (2015) views lifelong learning as a “life-deep” concept that takes into account an ongoing, active acquisition, expansion and deployment of knowledge and skills over time. The fundamental principle for lifelong learning to thrive is flexibility, where restriction in terms of location, gender, age, race, socio-economic status and level of education is removed to increase equal opportunities for all (Dinevski & Dinevski, 2004).

2. What is work-based learning?

Work-based learning emphasises lifelong investment on people’s knowledge, skill and competencies for them to be effective in the world of work. This requires acquisition of new skills, reskilling and upskilling. With the rapid innovations in industries, continuous learning has been a norm for working adults to remain relevant in their practice. For the purpose of this paper, we will define work-based learning as “the term used to describe a class of university programmes that bring together universities and work organisations to create new learning opportunities in workplaces” (Boud, Rooney & Solomon, 2009). The University and industry work together to co-design, co-deliver and co-assess authentic learning experiences that address real problems in the workplace. The student simultaneously learns through work and at work. This kind of learning serves the purposes of improving knowledge, skills and competencies of the employees to benefit them as individuals and the work environment. In clarifying the concept of work-based learning,
Giffin, Neloms & Mitchell, (2018) explains that the work experience supplements instruction and activities that apply, reinforce, refine, or extend the learning that occurs during work, so that students develop attitudes, knowledge, skills, and habits that might not develop from work experience alone. From these definitions, the idea is that work-based learning is more applicable in adult learning where the learning helps to improve already acquired knowledge, skills and competencies that are critical in the individual’s livelihood (Hus 2011).

3. The interplay between work-based learning and lifelong learning?

The main objective of work-based learning is to keep up with the innovative changes that take place in the labour market and to improve socio-economic standards. As operations in organisations evolve, employees feel the pressure to continuously upskill themselves to remain relevant and employers also desire to remain competitive (Summerfield, 2022). This means that, as long as people are at work, they need to continuously improve their competencies, learn new ways of doing things and solve emerging problems. This brings personal gratification and productivity within the organisation (Summerfield, 2022; Ibidunni, 2020). The continuous upskilling and reskilling by employees falls neatly into the lifelong learning ecosystem. This is clearly articulated in the report of the ILO Global commission on the Future of work; it states that: “establishing an effective lifelong learning ecosystem is a joint responsibility, requiring the active engagement and support of governments, employers and workers as well as education institutions (ILO 2019, pp. 31-32). This statement in the ILO 2019 report underscores the importance of strong links and commitment among key stakeholders for work-based learning to be sustainable and yield the desired results. Policies that speak to skills development and knowledge acquisition must be in place in governments and employers in different organisations must align themselves with these policies over and above their own organisational training policies. Establishment of policies and strategies for the implementation of work-based learning in organisations has a potential to create a sustainable lifelong learning system in countries (Spaulding, Hecker, & Bramhall, 2020).

4. Theories and models for WBL

As already noted, work-based learning is learning that occurs in a work environment, through participation in work practice and process, and is part of vocational education and training (Billet, 2001). Work-based learning allows students to develop practical and conceptual skills related to their training and to apply them in real workplace settings (Nottingham, 2017). As further observed by Ibidunni (2020) learning in the workplace provides the workers with opportunities for continuous professional development meant to improve the workers’ knowledge, skills and attitudes for improved organisational performance. There are different models of work-based learning such as the individual model, the distance education model and others.
The individual model

In this model, the student enrolls on a work-based learning programme developed through the partnership of industry and a university (Major, Meakin & Perrin, 2011). The university department houses the programme as it is part of the university curriculum and facilitated by university academic staff members. In some instances, the student may take an introductory course on skills and approaches to WBL in an attempt to assist the student in understanding the concept of WBL as well as the programme expectations and roles of the student, industry and the university (Major, 2016). In this model, the programme comprises different courses offered in the university, with some theoretical aspects taught in the university and practical aspects taught at the workplace. Learners can look back on prior learning and anticipate new learning thereby practicing the concept of lifelong learning, which helps with the process of ongoing progress on a personal and professional level.

The distance education model

In the distance education model, the University works in partnership with the workplace and the workplace becomes the learning delivery site (Major, 2016). The university staff will visit the workplace to teach the students undertaking the work-based learning programme. Staff members at the workplace are also involved in teaching. It is important to note that the programme remains a university one and only the delivery site is an off campus one. The academic standards of the programme, quality assurance and certification will be the responsibility of the university. The Faculty of Science and Engineering at the University of Eswatini, envisages following the distance education model in delivering the work-based learning programme in the Engineering department. This will be in line with the aspect of flexibility that underpins work-based learning.

5. How to harness technology in WBL

Most workplaces today operate with technology and continues to demand technological advancements and innovations. The increased smart use of technology continues to be critical for the continuing economic growth of organisations (Lewis, 2020). These technological advances have become necessary to manage the huge amounts of data processed in organisations every day. It is adequately clear that technology has an impact in the workplace. More important, however, is how individuals in the workplace use physical technology. To reap benefits from technological investments, employers and other stakeholders need to plan and ensure that their technical infrastructure and resources had better support for learning. Organisations can harness technology for learning in the workplace with the use of Learning Management Systems (LMS), simulations, as well as emerging interactive technologies. The department of Engineering hopes to harness most of the benefits that come with technology in the co-design and co-delivery of the WBL programme at the University of Eswatini.
Blended learning management systems such as Moodle may be of good use to manage and deliver more staff training to keep a skilled workforce. A blended learning approach that is flexible, hybrid, distributed learning can also be also be of benefit in upskilling employees. Chandan, Kealey, Timpson, & Murphy, (2022) posit that blended learning is a learning combination between face-to-face and self-paced online learning.

Another effective way of harnessing technology for lesson delivery in a work-based learning programme is through simulations. It has shown to be a significant component of work-based learning solutions (Iipinge, Batholmeus, & Pop, 2020). In essence, they duplicate organisation-specific, problem solving situations, ensuring that learners are advanced and competent with equipment functionality. Furthermore, simulated work-based learning develops learners’ understanding of the industry and public context of their work, whilst also developing personal attributes and skill sets such as confidence and collaborative practices critical in creative industries (Iipinge, Batholmeus, & Pop, 2020). In addition, emerging interactive technologies, such as high-end video game technologies, have the ability to immerse students in realistic work situations (James, Kovanovic, Marshall, Joksimovic, & Pardo, 2018). These again will be utilised in the design. The opportunity exists for students and teachers to utilise this virtual work experience situation to practise and develop the specific skills required to achieve the desired learning outcomes.

**Stakeholder views on Work-based learning**

The work-based learning stakeholders views has been the subject of some research reported in the literature (Carty, 2021; Mayombe, 2021; Du Plessis, 2019. These studies covered various aspects of work-based learning such as assessing work-based learning from the viewpoints of industry, academics and students.
## Table 1: Stakeholder views on Work-based learning

<table>
<thead>
<tr>
<th>Title</th>
<th>Contents</th>
<th>Findings</th>
<th>Researcher (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessing work-based learning on tourism and hospitality programmes in Irish higher education—the view from three main stakeholders (students, industry, HEI staff)</td>
<td>This research investigated issues in an Irish context by assessing work-based learning from the viewpoint of three key stakeholders: students, industry and higher education institute staff.</td>
<td>The main finding of this research was the variety and inconsistencies that prevail within and across higher education institutes regarding work-based learning.</td>
<td>Carty (2021)</td>
</tr>
<tr>
<td>Partnership with stakeholders as innovative model of work-integrated learning for unemployed youths.</td>
<td>The purpose of the article is to examine the roles of partner stakeholders in the features of an innovative WIL model influencing the labour market entry of the disadvantaged youths.</td>
<td>The main findings revealed that local businesses and enterprises played important roles in participating in the design of the WIL curriculum, providing adequate mentorship for work experience and micro-placement to the trainees.</td>
<td>Mayombe (2021).</td>
</tr>
<tr>
<td>Stakeholders' viewpoints on work-integrated learning practices in radiography training in South Africa: Towards improvement of practice</td>
<td>The aim of this investigation was to suggest practices to improve the delivery of work-integrated learning (WIL) in radiography training in South Africa (SA). The main themes discussed relate to curriculum design for WIL, teaching/learning of WIL, assessment of WIL and management and coordination of WIL.</td>
<td>The results from this study may enable lecturers in radiography programmes in SA to improve the delivery of WIL in the training of high quality, employable graduates</td>
<td>Du Plessis (2019).</td>
</tr>
<tr>
<td>Work-based learning for enhancing the capacity of engagement: Lesson from stakeholders’ perspective literature.</td>
<td>This paper examines the literature of stakeholder perspective on WBL to enhance the capacity of engagement of WBL program.</td>
<td>This review revealed that it would not be sufficient to apply the theory of traditional stakeholder without modifications to take into account the three-way nature of the WBL partnership and the dynamics of the WBL program.</td>
<td>Aini, Kustono, Dardiri &amp; Kamdi, 2016 (2016).</td>
</tr>
</tbody>
</table>

The stakeholder views in Table 1 show that there are still gaps between the expectations of the three main stakeholder groups.

### 6. Quality assurance in work-based learning

Like in any higher education programmes, quality assurance is key in work-based learning to ensure that key stakeholders in work based learning: industry, higher education, and students are satisfied with WBL programmes. A stakeholder-integrated approach is necessary to improve
programme development and implementation (Aini, Kustono, Dardiri & Kamdi, 2016). The European Quality Assurance for VET (2012) and Gourdin, Wagenaar and Vasilevska (2019) underscored the importance of ensuring the quality of work based learning and the need for a well-described quality assurance process for an institution. This allows for evaluation/accreditation as well as clearly defining the type of WBL offered in that institution and indicators for learning outcomes. Gourdin et al. (2019) observed and lamented the absence of a reliable and widely accepted Quality Assurance/Evaluation and Accreditation model.

Koski (2016) and the European Quality Assurance for VET (2012) outline steps of processes of quality assuring work based learning programmes in Finland and across Europe, respectively. Generally, the quality assurance processes involves setting the core curriculum for each qualification including the objectives (learning outcomes) for each study module. It also involves collaboration of key stakeholders in defining programme modules directly based on real life work tasks; qualification requirements core curriculum include assessments of competences targets of assessment and assessment criteria. The WBL provider makes a written contract with each employer and workplace instructors receive training on how to organise and assess work based learning. WBL providers monitor the number of trained workplace instructors and act based on the data. Students, teachers, and workplace instructors jointly plan the work based learning; they look at which learning outcomes are achievable during the work based learning periods and ensure that they meet the outcomes in their personal study plan. Moreover, students receive coaching from their teachers before they begin working with employers. And during the work based learning period, skills acquired by the students are assessed in line with the agreed assessment plan and criteria. Joint assessment involves the student, the workplace instructor and the teacher/lecturer, assessments and the justifications are documented. WBL providers collect feedback from students and the workplace instructors on each period of work based learning; a summary of this feedback is analysed each year; the feedback system also enables comparisons with information as the same software and questionnaires across providers; and learning outcomes are collected and evaluated nationally.

7. Methodology
This descriptive mixed-methods study examined the views of Eswatini education stakeholders about work-based learning. The purposive sampling technique was employed to select the participants for the study. Academics, companies and government ministries related to engineering were the main targets, as they were considered information-rich owing to their experience in the field of engineering. An online structured questionnaire and a Focus Group Discussion (FGD) schedule were used to collect data from stakeholders. The participants voluntarily participated in the study. The questionnaire was administered online as a Google Form. The form required respondents to give informed consent by responding to a question on whether they wanted to
participate. The form allowed those who opted for a “No” to exit. For the FGDs verbal consent was obtained. The instruments sought stakeholders' views about work-based learning and its potential in ensuring a skilled workforce, its relevance to their industry, and prospects of partnerships with the university. They were further probed to indicate their willingness to collaborate with the university in designing and developing work based engineering programmes, and their willingness or that of their staff to enrol for work based programmes. Quantitative data from the questionnaire were analysed using descriptive statistics through the Statistical Package of Social Sciences. Content analysis was used to analyse qualitative data from the FGDs generating codes and themes.

8. Results, Discussion of Finding and Recommendations

Thirty-two (32) stakeholders participated in the FGD. The stakeholders represented different sectors such as relevant government ministries, regulators, engineering registration council, construction industry council and relevant industries and university academic staff. Large- and small-scale industries, as well as start-ups companies had representatives. The representatives held different positions in their places of work including managerial positions.

The stakeholders were of the view that work-based learning had a potential to open access to higher education for the working class in Eswatini, as companies always sent their employees to universities outside Eswatini in an effort to upskill them. The views of the stakeholders were collaborated by Mahlalela, et al., 2021 who stated that the engineering industries in Eswatini have more employees in need of upskilling in higher education.

The results also showed that stakeholders believed that introducing work-based learning programmes in Eswatini would save industries a lot of money. They stated enrolling employees in international universities was costly for companies, as they needed to pay foreign levy over and above the required university fees. This led to a smaller number of employees who gained training, depriving industries of the much-needed skills for growth.

Industry employees who are also potential students of the WBL programme expressed their appreciation on the proposed introduction of the WBL programme. They stated that having a WBL programme within a local university could save them from leaving their families and other responsibilities when they went for training. The stakeholders favoured the distance education model as it was flexible and they further suggested that a blended learning approach be followed in offering the programme. Their views were corroborated by Major, 2016 who stated that in offering WBL programmes, the workplace becomes the learning delivery site.

Government ministries also liked the idea of a WBL programme in Eswatini but stated that quality assurance policies had to be in place to ensure that the programme was competitive internationally.
They echoed Gourdin et al. (2019) who observed and lamented the absence of a reliable and widely accepted Quality Assurance / Evaluation and Accreditation model.

Stakeholders were in support of WBL programme and viewed it as having a great potential in ensuring a skilled workforce in the kingdom of Eswatini. They recommended that both industry and academia collaborate in forming Policies that would guide the implementation of a sustainable WBL programme. These include relevant internal policies such the teaching and learning policy, blended learning policy and external policies like such as the Recognition of prior learning policy (RPL). This is also in line with the views of Mayombe (2021) who observed that local businesses and enterprises played important roles in participating in the design of the WIL curriculum, providing adequate mentorship for work experience and micro-placement to the trainees.

Figure 1 shows the participation of different stakeholders FGD.

**Conclusion**

This study showed that although work-based learning was not common in Sub-Saharan Africa, Eswatini stakeholders viewed it as one way to keep skilled employees within the industries. They stated that the principle of collaboration between industry and academia in the design, delivery and assessment of a WBL could close the gap that existed between what industry needed and the kind of graduate the university produced. In essence, the study showed that WBL is one way to foster lifelong learning within countries. Two industries indicated their willingness to collaborate with the University of Eswatini in designing a WBL programme.
References


Carty, J. (2021). Assessing work-based learning on tourism and hospitality programmes in Irish higher education–the view from three main stakeholders (students, industry, HEI staff) (Doctoral dissertation, Lancaster University).


Summerfield, R. (2022). Hybrid working can help recruit and retain talent, upskill leaders and boost team working, suggests a case study from an international professional services firm. *Strategic HR Review, 21*(1), 34-40.