



Exploring TVET lecturer perceptions about work-integrated learning in South Africa

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Abstract

This paper discusses the perceptions of Technical and Vocational Education and Training (TVET) lecturers' work-integrated learning (WIL) to determine how they understood their learning in a South African context. This study explored TVET lecturer perceptions about WIL, which is not reported as much in the literature. Eighteen lecturers from the civil, electrical and mechanical trades were involved in the study. A multiple case study design was adopted. The non-probability sampling design, specifically convenience and purposive sampling was used because participants were identified according to the researcher's judgment. Qualitative data were gathered from TVET lecturers learning through WIL in industry. A thematic analysis model was used to search for common themes and analyse the data. Bergami and Schuller's industry placement model (2009) underpinned the study. Using interviews and non-participant observation provided an opportunity for data triangulation, thereby addressing shortfalls that may be deep-rooted in a single method approach. This provided opportunities to test the trustworthiness and dependability of research findings. It emerged that TVET lecturers gained meaningful and current industry exposure. Lecturers described WIL as a positive and exciting initiative where they learnt from experts who shared valuable industry experiences. A few participants voiced their dissatisfaction over a lack of support from industry personnel. Further studies on challenges experienced by TVET lecturers during WIL are recommended. Overall, WIL complements theory with practice positively. The results may differ if future studies include other disciplines. WIL initiatives could influence different role players aligned to TVET provision.

Keywords: TVET, lecturer, perceptions, work-integrated learning, industry

Introduction

International Journal of Work-Integrated Learning (IJWIL) (2022) defines work-integrated learning (WIL) as an educational approach that uses relevant work-based experiences to integrate theory with meaningful workplace practice. WIL for TVET lecturers seeks to fill the industry practical skills gap and complement their theoretical knowledge (Olowoyo et al., 2020; Swiss-South African Cooperation Initiative, 2022). TVET is the study of technologies and related sciences, acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life (United Nations Educational Scientific Organization, 2016). Chavan and Carter (2018) add that the skills gap could be addressed through any WIL opportunity to bridge the theory-practice gap. This study explores the perceptions of Technical and Vocational Education and Training (TVET) lecturers learning in industry during WIL to determine how they understand their learning.

In this study, WIL includes different forms of work placement in industry. WIL is an initiative that is meant to show how theoretical principles are translated into practice (Mesuwini, 2022). The article attempts to answer the following question: What are the perceptions of TVET lecturers about WIL, and what do they understand about the concept of learning that they could use in their practice as teachers? To answer this question, Bergami and Schuller's industry placement model was employed to identify and clarify the experiences gained by the TVET lecturers during WIL in the industry. The process involved lecturers acquiring skills, reproducing and using knowledge for a deep understanding of industry skills. The study situates TVET lecturer WIL practices in a South African learning context.

Review of Literature

Jørgensen (2018) studied four Nordic countries, namely Sweden, Norway, Finland and Denmark, and showed the need to improve the links between the Vocational Education and Training (VET) system and the labour market due to a major difference between the high esteem-of VET and the actual skills demanded in the workplace. This challenge has been further exacerbated by significantly high dropout rates and other associated social problems (Virolainen & Tønder, 2018). Similarly, South Africa has a comparative situation where the esteem for vocational training is declining, even though VET remains a choice for many students (Mesuwini et al., 2020).

The WIL initiative has become increasingly popular as an industry-based learning initiative. WIL is called work-based learning in England, industry attachment in Zimbabwe, and workplace learning in Germany, France, Austria, and other Organisation for Economic Co-operation and Development (OECD) countries (Mabhandha, 2017; Organisation for Economic Co-operation and Development, 2010). In other countries such as South Africa, New Zealand, and South Korea, the term WIL is more ubiquitous (Rose, 2020; Van der Bijl, 2021). In general, WIL is an umbrella term capturing practical industry activities that aim to blend practical workplace skills with theory.

Batholmeus and Pop (2019) reiterate the importance and demand for relevant industry skills for TVET lecturers in South Africa. In this instance, the Department of Higher Education and Training (2013), South Africa, proposed a policy on the professional qualifications of TVET lecturers to ensure that they understood the industry skills demands and could produce TVET graduates who meet such requirements. Resourcing TVET colleges entails providing material and

human resources that are appropriately qualified to fulfil the mandate of workforce development. TVET lecturers need professional qualifications, which include industry experience. One study detected deficiencies in TVET lecturer qualifications and experience, particularly workplace experience and qualifications (Van der Bijl & Oosthuizen, 2019). This suggests that lecturers lack the requisite industry skills, which are paramount in performing their teaching roles. Hence, this study sought to elicit their views about industry experience through WIL. Industry placement theory by Bergami and Schuller (2009) was employed to identify and clarify the experiences gained by some TVET lecturers during WIL.

The South African TVET lecturers updated their skills and knowledge using new equipment and techniques, attending events and industry networks (George et al., 2019). WIL introduced TVET lecturers to unfamiliar technology, which helped them appreciate the world of work and practice the theoretical principles they learnt at college to transition to the industry. MacQueen and Aiken (2019) verified in a study in England that students reported high levels of anxiety, unhappiness, and frustration due to employers' low levels of support. The kind of support needed included sponsorship by their employers to provide suitable facilities, learning opportunities and workplace mentorship (MacQueen & Aiken, 2019). The discussion of findings clarifies if TVET lecturers learning during WIL experienced the same exposure as students.

The literature on the experience of TVET lecturers undertaking WIL in industry is relatively limited as only a few studies have focused on the South African context. Due to the scarcity of studies on TVET lecturers learning through WIL, studies including TVET students on industrial attachment were included. For example, in Australia, Bergami and Schuller (2009) studied the perceptions of business studies academics during industry placements. Many participants were interested in pursuing an industry placement, and the rest expressed no interest due to prior industry experience. Emanating from the research, Bergami and Schuller (2009) reported that lecturers perceived WIL as essential for growing their knowledge since they gained professional development, career growth, and up-to-date industry practices. Furthermore, lecturers were able to link theory to industry practice and develop networks and professional contacts. The findings align with the research by Govender and Wait (2017), which confirmed that WIL is useful in building teamwork, networks and contacts, and theory-practical linkages.

In another study, vocational education teachers showed that they gained self-esteem, confidence and pedagogical skills such as communicating, establishing good relationships and viewing their pedagogy as praxis (Kemmis et al., 2012). Martin and Rees (2018) explored the value of WIL with a focus on sports management and coaching student insights on WIL and their development of professional attributes. From the findings, students perceived that a successful practicum placement could significantly influence current, relevant, and useful skills and build students' confidence. In Papua New Guinea, students perceived that industry training provided practical experience in an industrial setting (Subbiah et al., 2017). The majority of participants indicated no problems during their industrial placement. A few participants experienced difficulties during WIL and stated that the industry personnel did not cooperate during their industry experience (Subbiah et al., 2017). The study identified some resistance from industry personnel whose core duties to ensure that company production was interrupted by attending to the initiation and induction of WIL lecturers. However, most participants reported success during their industry exposure.

In Ghana, Akudugu and Obeng (2015) studied the perceptions of Agricultural Engineering lecturers, who perceived that WIL improved their teaching standards. All lecturers acknowledged receiving adequate training in the competency-based training programme. Adequate training culminated in a well-trained lecturer with relevant skills according to TVET demands. A similar study in Finland showed that all vocational teachers interacted purposefully with the industry, which widened their expertise (Virkkula & Nissilä, 2014). The vocational teachers developed many new skills and substantial knowledge on the theory-practical continuum (Virkkula & Nissilä, 2014). They did different kinds of work during the placement period.

Govender and Wait (2017) investigated WIL benefits in a South African context and confirmed that most participants rated their WIL experience as highly rewarding. It was further established that «students were treated well, and the mentor was helpful and professional, assisted students, the staff was supportive, the industry was a better place to learn, excellent communication, the industry is insightful, meet different people, growth opportunity» (Govender & Wait, 2017, p. 61). Overall, participants indicated they had rewarding experiences and acquired enhanced knowledge and skills in their disciplines.

In another study, George et al. (2019) explored South African TVET College Science lecturers' perceptions of WIL and the fourth industrial revolution (4IR) skills like complex problem-solving and computer technology integration. The findings verified that most TVET lecturers believed that the WIL curriculum was outdated and did not address the current skills deficit (George et al., 2019). Similar research conducted in Nigeria found that industries criticised the existing curriculum, citing that it did not address the industry practical issues (Ayofe & Ajetola, 2009). Most TVET lecturers did not believe that TVET Colleges were adequately geared for the 4IR. Although this study did not focus on the 4IR, it appeared that the 4IR skills are similar to the latest skills sought by TVET lecturers during WIL.

WIL allows TVET lecturers to bridge the gap between theory and practice. Department of Higher Education and Training (2013), South Africa, proposed a policy on the professional qualifications of TVET lecturers so that they learn industry skills and work towards producing TVET graduates who meet such requirements. Even though some challenges were cited from the literature above, overall, WIL improved TVET lecturer industry knowledge. This paper commences with an introduction, which justifies the purpose of the study, and highlights a few studies conducted on WIL in different countries. Second, the methodology and the theoretical framework underpinning the study are highlighted. Third, the results and discussions follow, and the conclusion recommends further studies.

TVET Lecturer Experiential Learning

Experiential learning represents practices and techniques that are used to acquire practical knowledge. The learner is in direct contact and meets the realities of the work environment. Kolb and Kolb (2018) and Schön (1987) explain experiential learning as a process integrating knowledge, activity in industry and reflection. Through experiential learning, there is the possible formation of relationships and networks with industry personnel. Moore (2010) explains that there are different forms of experiential learning like internships, cooperative education, practicum, fieldwork and many more. Although different terminology explains different programmes

of workplace practice, all of them are based on a general understanding of the value of integrating theory with practice through an intense industry environment. Therefore, WIL is a broad term that involves various learning opportunities centred on integrating theory with practice in the industry (Peters et al., 2014; Rowe, 2017).

This paper explores the perceptions of TVET lecturers learning during WIL to determine how they understood their learning. The paper attempts to answer the following question: What are the perceptions of TVET lecturers learning during WIL? This paper provides the perceptions of lecturers' WIL experience from a South African perspective. There is a dire need for research in the South African TVET sector since there is limited evidence in the public domain on TVET lecturer experiences and perceptions of WIL (McGrath & Powell, 2016). This research contributes to the literature on WIL for TVET lecturers and influences curriculum design and policy on TVET lecturer training. The study further highlights the potential of industry-based WIL for TVET lecturers by clarifying what happens in industry to complement lecturers' practical work engagement.

Theoretical framework

The industry placement model by Bergami and Schuller (2009) underpinned the study and helped to identify and clarify perceptions of the TVET lecturer learning during WIL. Bergami and Schuller (2009) suggest that the engagement between TVET lecturers and industry should enable the formation of a community of practice with different interests, making diverse contributions, and having various ideas on the utility of WIL.

Bergami and Schuller (2011) developed a model framed within communities of practice model conceived by Lave and Wenger (1991). A community of practice is a group of people with a common concern in their activities, committed and behaving in a mutually respectful and trusting manner (Mittendorf et al., 2006). Bergami and Schuller (2011) argue that a VET teacher's industry placement involves the development of industry skills and forms an integral part of WIL exposure. Industry placements result in relationships among the teacher, the institution and the hosting industry. Industry placement develops a community of practice and networks, improving connections among stakeholders, especially teachers and industry. Shulman and Shulman (2009) argue that the development of communities of practice is one of the three levels of learning experienced by new teachers.

Experiential learning represents certain techniques that people can use to acquire knowledge. The learner is in direct contact with practical experiences and encounters the realities being studied. Kolb and Kolb (2018) and Schön (1987) explain experiential learning as a process that integrates knowledge, activity in real industry and reflection. Through experiential learning, there is the possible formation of relationships and networks with industry personnel. Moore (2010) explains that there are different forms of experiential learning like internships, co-operative education, practicum, fieldwork and many more.



Figure 1. Industry placement model (Bergami & Schuller, 2009: 201).

The figure shows Bergami and Schuller's six steps of the model, which include industry placement, industry placement experience, industry placement skills, theory development (from reflection on practice), classroom teaching and theory into practice. Steps applicable to the study were noted and used to explain the research findings.

Methodology

The study drew on the data gathered from face-to-face semi-structured interviews with eighteen TVET lecturers learning through WIL in South Africa. In the interpretive research paradigm, the number of participants is relatively small (Yin, 2003). Yin (2011) recommends that novice researchers use small samples because of the complexity of managing and analysing large volumes of data. In support, Eisenhardt (1989) submits that samples between four and ten cases often work well. Therefore, sampling entails selecting participants who wield rich data in research. Guest et al. (2006) found that about 12–16 interviews were adequate to achieve thematic saturation. Probing and prompting during an interview seems to matter more than the number of interviews because a small sample with extensive probing can generate the most salient ideas (Weller et al., 2018). Therefore, the sample size did not affect the findings and conclusion of this study. A non-probability sampling design was employed: convenience and purposive sampling because participants were identified according to the researcher's judgment. Purposive and convenience sampling were used to select lecturers and company personnel. Maree (2012) comments that purposive sampling entails choosing participants due to some important qualities that qualify them as potential rich holders of the data needed in a study. Similarly, Tongco (2007) concurs that purposive sampling is the deliberate choice of informants due to their qualities, knowledge, and skills. The reasoning behind this selection is grounded in the value of information-rich cases.

Non-participant observation and interviews were used as data generation tools to find answers to TVET lecturer perceptions about learning in the industry during WIL. The interpretive research focuses on analysing meaning-making practices and allowing the practices to emerge in industry through WIL. An understanding of the world characterises the interpretive research paradigm as it is from a subjective viewpoint and seeks an explanation from the participant (Yin,

2011). A multiple case study approach was used to elicit the views of TVET lecturers on WIL. These were chosen from three different TVET colleges. Non-probability sampling was applied to select the few lecturers on WIL.

The following procedure was used:

- Seeking permission from the university institutional research ethics committee (IREC) to conduct research - IREC 020/19.
- Seeking permission from gatekeepers to access their institutions.
- Preparing interview questions and piloting them to ensure they are correct and draw the required data. Feedback from the pilot helped clarify language ambiguity and improve the questions' sequence (Mesuwini, 2022).
- Contacting participants and making meeting arrangements.
- Preparing venue, recording gadgets and other equipment and refreshments to ensure the venue is conducive.
- Explaining the purpose of the research, the consent form, and the participant is free to withdraw at any stage.
- Transcribing the recorded data verbatim.
- Making non-participant observations while participants work in their different roles.
- Data analysis - Data was organised into categories after identifying patterns and relationships, interrogating those patterns and developing themes (Maree, 2012; McMillan & Schumacher, 2010). The thematic analysis model by Braun and Clarke (2006) was used to search for common themes. An inductive analysis approach was used to code the interview and observation data. An inductive approach means the themes identified are closely linked to the data (Patton, 2002).

The data were read continuously to understand it, and the correlated data were put together. The interviews were complemented by non-participant observation for triangulation, which addresses any possible shortfalls that may be deep-rooted in a single-method approach and provide opportunities to test the trustworthiness and dependability of research findings (Johnson & Onwuegbuzie, 2004). Non-participant observation enabled capturing social action and interaction as it occurred.

Findings and discussion

Both TVET lecturers' responses from interviews and non-participant observations were integrated and presented together as they were broadly similar. Contradictions were highlighted where they occurred. The table below displays the two themes that stood out from the data through coding. The sub-themes are discussed under each theme. Table 1 displays the two themes and five sub-themes. Even though industry personnel responses were noted, their discussion is spared for further studies.

Table 1. Themes and sub-themes

Theme	Sub-theme	
Industry placement experience	New skills and knowledge	In- dus- try
	Lecturer positive views about WIL	
	Constraints during WIL	
Personal development beliefs	Industry links	
	Knowledge enrichment	

placement experience

Under this theme, three sub-themes emerged: new skills and knowledge, lecturer positive views about WIL and constraints during WIL. The following section presents data relating to each of the sub-themes.

New skills and knowledge

During the lecturer WIL placement in industry, they gained new skills and knowledge. A civil lecturer at Company 1 said:

I learnt new ways of casting, bending steel bars, welding metal, building maintenance holes from brick and concrete. I learnt paving using brick, concrete and tar. Now I can build, draw plans, stick to a work schedule, follow municipal by-laws, design steel basic structures, timber, and masonry. I can do surveying, setting out levelling and square houses using the 3-4-5 method (Lecturer 1).

At Company 2, a mechanical lecturer added:

I learnt new things and sharing ideas, views about whatever is happening at that particular company. I got to know new things, tackle challenges and share knowledge through meetings (Lecturer 5).

Mechanical lecturers at Company 2 were observed assisting artisans on computer numerical control (CNC) of machines. The machines operated on a computer software programme.

Lecturer positive views about WIL

All 18 lecturers stated their views about learning through practice during WIL. During their industry exposure, lecturers gained related trade experience. Lecturer 9 at a mechanical Company 2 commented on perceptions about WIL:

WIL enriches lecturers in terms of knowledge because there are many current transformations in industry. Machines are changing through technology. We now have CNC, milling machines and centre lathe machines. It enriches the lecturer's knowledge (Lecturer 9).

Mechanical Lecturer 4 at Company 2 echoed: « I will recommend my colleagues to do attachment because I was exposed to many skills. They can learn many relevant trade-related skills.» (Lecturer 4).

Commenting on the relevance of WIL, electrical Lecturer 12 revealed that «industrial attachment is very important because it gives you that learning space to apply all the theory and see it being applied in industry». Through observation, lecturers showed interest in WIL by sharing their practical exposure experiences. In doing so, mechanical Lecturer 6 at Company 2 shared the same sentiments:

Yes, yes! I highly recommend my colleagues do the WIL there because there is a lot to learn, especially some of our colleagues who have not been exposed to industry as they come from varsity without a trade test like the one we do. I highly recommend it, but they must allocate us at least three months in industry to grasp many new things, maybe every three years or so (Lecturer 6).

Again, Lecturer 8 at civil engineering Company 1 raised the same views: « I recommend that my colleagues do WIL because most lecturers talk about things they have not experienced. They have seen only in the textbook. It is good to speak confidently about something you have touched.»

Constraints during WIL

In any initiative, the quality of support is critical for successful results. The success of TVET lecturer learning during WIL depends on support received from the industry while on experiential learning. The findings of limited support are consistent with the literature (Liyana et al., 2013), which recognises a major concern that WIL trainees did not have a workplace mentor. A mechanical lecturer at Company 2 reported:

Aaah, some supervisors are unwilling to help or feel that you might be wasting their time, and you will be disadvantaged there. Sometimes they do not give you the knowledge you want but give the knowledge at the surface because they will not have time to attend to you because of other company demands (Lecturer 5).

Lecturers raised concerns over the industry working hours: «What was bad always was the time and the noise as well. I am not used to working six to six, Saturday and Sunday.» (Lecturer 9). A refrigeration Lecturer 10 at Company 3 corroborated this view: «Not many bad things except that time issue where you start at 7:30 am to 4:30 pm.» The issue of time was a great concern, as Lecturer 6 complained:

You have to leave a job in the middle while others are busy working, and it portrays a wrong impression. The college did not provide transport, and if we were paid at least, we could finish work late with others than leave early (Lecturer 6).

Lecturers were observed leaving Company 1 and 2 earlier than other industry employees because they did not follow industry shifts. Lecturers worked the same working hours as they used to in TVET colleges. Such a practice forced lecturers to leave tasks incomplete due to extensive working hours, negatively impacting their learning during WIL.

Closing on a positive note, electrical Lecturer 2 at Company 3 commended TVET lecturer WIL and said:

The industry was a perfect environment for learning because supervisors have a solid support base. Colleagues from the training centre put forward their wealth of knowledge. We also presented our knowledge from the university and combined the expertise and shared good practices. We learnt what industries do, making it a conducive environment for learning.

Personal development beliefs

TVET lecturer learning through practice during WIL led to their personal development through knowledge enrichment. They developed contacts to get frequent updates on the latest industry developments. Discussed below are industry links and knowledge enrichment of lecturers.

Industry links

Industry connections facilitate information-sharing between TVET lecturers and artisans. Lecturer 9 disclosed industry links: «I meet with artisans and forepersons that I know to see what is happening in industry. I can share knowledge with my students.»

The mechanical lecturer had an opportunity to consult with company personnel contacts and get information on industry developments. Civil engineering Lecturer 8 at Company 1 reported: «We are in the fourth industrial revolution, and things have started changing, so we need to visit the industry and get updated on what is happening and not fall behind on developments.»

Knowledge enrichment

TVET lecturers confirmed gaining knowledge in their different disciplines during their WIL learning experience. All the eighteen TVET lecturers learning through WIL confirmed that their knowledge was enriched during industry practice. A mechanical lecturer reported the following views about the knowledge gained during WIL:

I learnt how to communicate appropriately, whether it is verbal or written. I also learnt report writing which I did not know. I gained communication skills to talk to my colleagues and superiors following the organogram protocols (Lecturer 4).

Lecturer 9 reported:

WIL means enriching lecturers with more knowledge because the things we teach are happening in industry. I have learnt to communicate with colleagues, you know. I learnt to respect as well. I have also learnt how to work in a multicultural environment.

Mechanical Lecturer 6 at Company 2 presented perceptions of learning during WIL:

My learning experiences were noteworthy because I could use that experience to link it with classroom lecturing lessons. I greatly benefited from using new machines and processes, which provided more options when giving class examples. I managed to eliminate old methods from my teaching examples.

Discussion of findings

Central to TVET lecturers' perceptions was gaining new trade skills during their experiential learning in industry. Bergami and Schuller's model explains new knowledge and skills acquisition as the subsequent results of WIL as expected by the TVET lecturer and the host company (Bergami & Schuller, 2009). From the literature (Bergami et al., 2011), the host company may also learn how to accommodate TVET lecturers for WIL, improve future lecturer placements, and share information with lecturers who could enhance existing systems and processes. The WIL experience could support the academic currency in TVET teaching and learning practices, ultimately enriching the students' learning experiences. Lecturer 9 compared obsolete machines

with the new CNC technology by saying that many changes were observed in the industry equipment and practices. Therefore, WIL aligned lecturer knowledge with current technology. Lecturers 4, 6 and 9 recommended TVET lecturers to engage in WIL in the same industries that they were placed. TVET lecturers wrote a trade test after WIL placement and gained a recognised trade qualification. It shows that WIL developed lecturer skills and qualifications.

All lecturers viewed WIL as a positive and helpful experience everyone needed to explore. The comments from Lecturer 8 align with literature from Mabhandha (2017, p. 159), who notes that *“Lecturers must undergo industrial training attachment to bridge knowledge gaps. The attachment of lecturers helps overcome lagging in new technology available in industry”*. From the views given by lecturers about WIL, it appeared that all lecturers applauded WIL. They were willing to refer their colleagues to receive the same training. Lecturers mentioned gaining confidence, experiencing current technology, exposure to the industry world and getting a wide range of skills, implying that lecturers valued WIL.

Lecturer 5 perceived that company supervisors failed to share information in-depth due to the demands of their production targets and other company responsibilities. The finding aligns with Subbiah et al. (2017), who established that some industry personnel offered resistance during TVET lecturer WIL. This finding further aligns with literature (Tshewang, 2021) which confirms that company technicians and supervisors were suspicious of the knowledge and skills of TVET lecturers and made them do irrelevant work in their field of study or work on menial jobs without doing the fundamental elements of the job. Sewell et al. (2015) also reported that some of the host companies surveyed were not familiar with the concept of WIL.

The response from TVET lecturers learning during WIL commended WIL as a good engagement worth repeating. These comments confirm the literature surveyed (Van der Bijl & Taylor, 2018) that some lecturers completed a second placement, reinforcing their practical skills and ability to explain concepts competently and confidently. Subject experts need to speak with authority and power of the content knowledge. Lecturers shared knowledge and industry practices with artisans by integrating their ideas and sharing acceptable industry practices.

Industry links refer to a network of professionals to which TVET lecturers connect during industry WIL. These links kept TVET lecturers in contact with industry personnel so that lecturers had a reference point for current engineering developments. Lecturers confirmed having developed industry links during WIL. Bergami and Schuller (2011) confirm that industry placements result in relationships among the lecturer, the institution and the host industry. When the lecturer returns from industry exposure, these skills could be transferred to students and colleagues. Mabhandha (2017) contends that WIL improves partnerships with industry, leading to college-industry workshops, seminars and conferences. Fostering synergies between TVET lecturers learning during WIL and company personnel could keep the TVET curriculum updated with the current industry demands.

The fourth industrial revolution focused on the dawn of a new universal technological revolution. Van der Bijl and Taylor (2018) note that some TVET lecturers learning during WIL started exploring future collaborations with industry personnel, like guest lecturing in TVET colleges. The comments are in tandem with industry networks suggested in Bergami and Schuller’s model on industry placement. Bergami and Schuller (2009, p. 70) explain industry networks:

The placement experience provides the academic with real opportunities for developing strong industry networks with colleagues in the host firm that, if nurtured and maintained, could be a

powerful resource in the classroom teaching and learning environment. Additionally, these networks may provide future collaborative opportunities on other projects, not only limited to the host firm, thereby possibly resulting in a 'widening' of the membership of the Community of Practice.

Bergami et al. (2011) noted that the TVET lecturer on WIL had an opportunity to develop continuing relations with the host company during and after the industry placement experience. TVET lecturers' interaction with industry personnel kept them updated with current engineering news and developments. Furthermore, the TVET lecturer on WIL had a chance to keep abreast with innovations and industry trends while exploring future collaboration possibilities with industry personnel, like guest lecturing in TVET colleges (Bergami et al., 2011; Van der Bijl & Taylor, 2018). Collaborating with others is important for lecturers to help students learn (Asghari & Andersén, 2022).

Van der Bijl and Taylor (2016) agree that the content sometimes contradicts industry practice because of obsolete curricula. In this study, WIL bridged the gap, as indicated by the lecturers learning during WIL. Responses from Lecturers 4 and 9 confirm learning from communication with colleagues and following protocol as indicated by Lecturer 4 that communication was done following the set communication channels. Generally, TVET lecturers enriched their knowledge by following proper communication channels during WIL. J Mesuwini et al. (2020) note that engineering trades require soft skills like communication and problem-solving. Further, Murgor (2017) and Ellis et al. (2014) confirm that collaboration was achieved using communication and teamwork skills to liaise with colleagues at a working site. Bergami and Schuller (2011) argue that industry placement involves the development of industry-related skills, which is an integral part of WIL exposure. In support, Mabhandha (2017) describe WIL as critical in unlocking better ways of preparing students to comprehend specific discipline competencies. Bukit (2012) also noted that TVET teachers learnt from colleagues, built relationships with them, and acquired supervisory and managerial skills through practice and observation. Literature confirmed that TVET lecturers' skills were enhanced, and they felt empowered by the industry experience and wanted to experience more. WIL encouraged interaction between TVET lecturers and company personnel to explain abstract theories in textbooks according to business practices (Bergami et al., 2011). Bergami and Schuller's model described community engagement which emerged among the TVET College, the TVET lecturer on placement and the host company.

Conclusion

Central to lecturers' perceptions was gaining new trade skills in industry during their experiential learning practice and attaining trade test qualifications from engaging in WIL. Bergami and Schuller's model explains new knowledge and skills acquisition as the subsequent WIL results expected by the TVET lecturer and the host company. The WIL experience could support the academic currency in TVET teaching and learning practices, ultimately enriching their learning experience. The lecturers on WIL developed ongoing relationships with the host company personnel during and beyond the industry placement experience. Through WIL, TVET lecturers kept abreast with innovations and industry trends. The findings suggest that some host employers were hostile to lecturers during WIL. Future research might consider focusing on the challenges

TVET lecturers face in industry during WIL practice. Further research could assist in understanding the knowledge gained during WIL and how it influences teaching and learning. More research is necessary to understand the placement of lecturers in industry and how they are supported during their placement.

Although this study did not focus on the 4IR, the 4IR skills (CNC technology and computer technology) are the same as the latest skills sought by TVET lecturers during WIL. Further research could focus on 4IR and its impact on TVET delivery. The contributions from TVET lecturer WIL experiences could benefit the Department of Higher Education and Training, Sector Education Training Authorities (SETAs), TVET college management and WIL officers, industry and other role players on ways to improve WIL provision, teacher development programmes and curriculum revision of the courses offered in TVET colleges. The study recommends considering the TVET lecturer placement process and host company preparedness to accommodate lecturers for WIL. Furthermore, the industry personnel (Training officer/manager or artisan) must be aware of the logbook that bears requisite practical skills that the TVET lecturer needs to learn during WIL.

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