Work Integrated Learning –
A Conceptual Model

Nicolene Barkhuizen, and Nico Schutte

Abstract— The main object of this research was to develop a conceptual model for work integrated learning. Data was collected by means of focus group discussion with academics, students, employees and government officials (*N*=70) from Sub-Saharan Africa. The main themes that emerged included graduate skills and competencies, drivers of work integrated learning and stakeholder engagement and communication. The research concludes with an integrated model for work integrated learning by incorporating the above themes.

Keywords— Graduate Employability, Graduate skills and competencies, Stakeholders, Work integrated learning

I. INTRODUCTION

WORK Integrated Learning (WIL) is increasingly on the mind of academics and managers as a means to enhance the employability of graduates. Higher Education institutions are responsible and accountable for building theoretical knowledge and skills required for professional practice within a chosen field [2] [6] [14] [18]. Research evidence however suggests that higher education institutions deliver students who do not have the necessary skills or experience to fill job requirements [7] [12] [26]. This is concerning as employers are requiring new skills levels from graduates in a knowledge-intensive economy [23]. Higher Education should therefore, as part of their mission, include work integrated learning practices in their curricula to produce workplace ready graduates.

Although the practice of work-integrated learning programmes are quite common globally [14] very few traditional South African Higher Education Institutions have implemented it as part of their curricula. A recent study by Ntsizwane, Swanepoel and Barkhuizen [22] re-emphasised the importance of work integrated learning for students, alumni and academics in the enhancement of graduate skills for Commerce students.

Despite the acknowledgement of the importance of WIL there is still a great deal of uncertainty as to what WIL entails, graduate skills requirements as well as the key stakeholders involved in the work integrated learning process [7] [23]. The main objective of this research is to propose an integrated

framework for the effective implementation of work integrated learning programmes in the sub-saharan African context. More specifically our research aimed at addressing the following research questions:

- What are the graduate skills requirements for market entrees?
- Who are the key stakeholders/ drivers in the work integrated learning process?
- What are the underlying interactive processes that define the work integrated learning process?

This paper is structured as follows. First a literature review is provided highlighting work integrated learning, its benefits and the key stakeholders involved in the work integrated learning process. This is followed by a discussion of the research method employed for this study. Flowing from the method, the empirical results of the research are reported. The research concludes with a discussion of the key results and recommendations for both practice and future research.

II. LITERATURE REVIEW

A. Defining Work Integrated Learning

Work integrated learning has been defined in various ways and is often also referred to as experiential learning, in-service training or cooperative education. Despite some divergence of scholar opinions work integrated learning is viewed as a component of undergraduate curricula which includes a practicum placement [14]. Du Plessis [10] refers to Mbango [19] who described describes work integrated learning as a defining element of a holistic educational strategy that is known as co-operative education, which advocates the formal integration of structured real-life experiences (work-place or community service) into the overall programme curriculum. According to Heerde and Murphy [14] the inclusion of work-integrated learning practices into course curricula is based on the premise that practical placements provide an opportunity for students to integrate theoretical knowledge gained through formal teaching curriculum, with the informal knowledge gained through immersion in a professional context.

B. Benefits of Work Integrated Learning

The benefits of work integrated learning have been widely documented. Studies in particular has shown that work integrated learning programmes enhance the soft skills and technical skills of graduates [5] [9] [12] [24] [26]. Some of the most prominent graduate skills identified by these authors include amongst others: interpersonal skills, motivation, good inter-personal communication skills, business skills and

Nicolene Barkhuizen is an Associate Professor at the Department of Industrial Psychology, North-West University, Mafikeng Campus, South Africa. (+27 18 389 2652 ; e-mail: nicolene.barkhuizen@nwu.ac.za).

Nico Schutte is an Associate Professor at the Department of Public Administration, North-West University, Mafikeng Campus, South Africa. (e-mail: nico.schutte@nwu.ac.za).

etiquette, team spirit and cohesiveness and showing interest. Moreover research has also shown work integrated learning programmes contributed to the employment and retention of gradautes well in organisations [3] [11] [20] [27].

C. Stakeholders in Work Integrated Learning

Work Integrated Learning Programmes should be designed with the active participation of industry, to provide the best possible programme directed at the world of work [16] [26]. Therefore, it is important to create a system for cooperative education which provides a framework for the integration of effective learning between higher education institutions and the workplace [13]. According to Adams [1] it is generally recognised that academic learning at the institution is planned, resourced and structured to ensure an environment that supports the student experience of learning. Moreover the obligation rests on HEIs to implement processes for tracking successful student workplace learning and development and transition from the HEI into the workplace, until their return to the institution at the end of the experiential period as the workplace is not a learning institution [7] [12]. To this end a system of cooperative education complements and supplements the academic learning to produce employment ready graduates [13] [17].

III.   RESEARCH APPROACH

A. Research Method

This research followed a qualitative approach. Qualitative research is concerned with understanding the social and cultural contexts which form the basis of various behavioural patterns and methods of data generation and analysis [21]. The research also followed the interpretivist paradigm which allows the researchers to establish frames of meaning when searching of the participants' point of view, perceptions and interpretation [8]. Data was collected by means of interactive focus group sessions. The focus group sessions allowed the respondents to engage in a guided discussion which enabled the researches to question systematically and simultaneously on a defined area of interest [8].

B. Sampling

A purposive convenience sample was used to obtain the data. The respondents were representative of academics, employers, government and students (N=70) from Sub-Saharan Africa.

C. Data Analyses

Content (theme) analysis was used to identify the underlying themes. These themes were recorded by the researchers against each question and allocated a unique code. According to Cooper and Schindler [4] content analysis is useful as a guard against selective perception and enables the researcher to apply reliability and validity criteria in qualitative research.

IV.   FINDINGS

The main themes of the research were clustered around the three research questions. The themes in the ensuing section.

A. Theme 1: Graduate Skills and Competencies

Graduate skills and competencies were the themes that were mentioned mostly during the focus group discussions. The themes that occurred mostly were graduate skills and competencies. The participants were of the opinion that higher education institutions do not prepare students adequate for the workplace. As mentioned by one of the participants: *"We talk a lot about skills and we want to know are the universities preparing the right kind of skills for the industry. Is it possible for the university to instil the right kind of skills? In engineering curriculum of 4-5 years can you really prepare a student for the industry? You can't, but you can teach them the principals and the attitude and the ways you need to understand and approach problems."*

Other participants also highlighted the specific skills that are needed for graduates: *"We have to educate them for problem solving, technology and processes that they do not know today."*

In addition participants also added the importance of creating global citizenship for students: "*How do you define a global citizen? We came up with a lot of skills, but amongst others we said open-mindedness stand out for us as well as cultural intelligence. Team members suggested to be credible, and that also comes in with cultural intelligence, and awareness of who you are as a person."* and *"Universities must make the curriculum more approachable for the students to know what is going on in the Global world. A Student wants to know what is going on in the outside world."*

B. Theme 2: Drivers (Stakeholders) of Work Integrated Learning Programmes

The respondents had mixed opinions of who should be the driver of work integrated learning. The mentioned at least ten possible drivers of WIL: Global Environment, Professional Bodies, Communities/ Society, Industries, Higher Education Institutions, Centers for Cooperative Education, Government Students and Parents of students. As mentioned by some of the respondents: *"We want to know who is the driver – is it the industry or the university or should we make the student the driver? Maybe the parents who are financing the students are the driver. We looked at these factors and we collaborate about this.*

From the discussion it was evident that the respondents felt that the communities/ society are the most important drivers of WIL. As mentioned by some of the participants: *We came to the conclusion that the society is the real driver. They drive it via a policy document setup- what is the priorities for the country, where it wants to go, who their competitors are, their weaknesses and strengths and how we going to address this. "*

Other participants felt that universities should play the leading role in developing work integrated learning programs: *Industry is looking at the academic for guidance. Industry needs feedback forms; they need a template for mentorship. They need information on how to mentor the student coming to us as we know we are winning but we don't have the skills. Industry needs training in internship management. The role of the industry in prescribes textbooks and how do we engage them and that the English teacher be part of not just the*

curriculum development but also the textbook admin. Are the channels that we use right, appropriate and are they speaking to the industry in real time, because that is very important.

C. Theme 3: Stakeholder Engagement and Communication

The participants identified multiple stakeholder relationships between the identified stakeholders. From the discussion it was evident that the industry plays a central role in all these relationships. Some of the participants mentioned: *"There is indeed a gap between what our industries and communities are asking for. It takes some time to analyze the skills and competencies that's been requested. There is need for a formal engagement between industries."*

As regards industry – student liaison the participants mentioned: *"Relationships that are build on trust because there are a lot of students that shared about their emotional experience and fear for industries. You cannot expect someone who starts at an industry to perform the same as someone who is working there for 3-4 years and who is already in line with your expectation. There need to create an independent board that need to consult the expectation to amend the skills in the corporation."* and *"Students must actually be exposed to an organization from their very first year when they come to university. Students should be making aware of an organization and that life does not only start and end to get education in South Africa."*

The communication between the different stakeholders was also highlighted as an important part the WIL process. The participants were of opinion that in general there is lack of communication and cooperation between the university and industry. As mentioned by one of the focus group respondents: *"We also want to know what this handicaps that are in our way of university and industry integration. The universities have got this idea that we going to do this research and benefits in the industry but the industry go to university and what do they see – handicap, obstacle, problems, papers need to be filled and all kind of things. Remove those obstacles and make it easy for industry to access their capacity and credibility of the university. That will enable them to work together. The industry wants to work with the university so create a chair with a chairperson that you appoint together with university and so you will have direct access."*

Other participants also indicated that higher education are relative slow to respond to industry needs: *A lot of the feedback that the industry give or those institutions get, is not acted on in real time and they are also not given in real time. We feel that if the academic can be more in touch by using modern technology e.g. internet and have access to all the information that is out there and immediately incorporating it into their lecture for the day".*

The participants also mentioned the role that the government can play in bringing higher education, students and the industry together: *The initiation of the Government regulation turmoil that enforces the integration of these students into the curriculum and also make sure that we can have a company to ways of motivation make it available in management to come into academia and share a part of their daily delivery to the curriculum so that some of the students*

*can start to come to the classes…*and *The Government can set up a policy direction in collaboration with industry. This is what happens in most of the countries. What happens is the document's been set up and it then formulates into society, into industries and into universities and people can than see what role they can play?*

Finally the participants also made reference to the relationship between the government and centres for cooperative education: *"The work integrated learning centre driven by the government and the university together. This centre is specifically set up to foster co operations. Lastly what we found is that a lot of the problems between the two here is an attitudinal one."*

V. TOWARDS AND INTEGRATED FRAMEWORK FOR WORK INTEGRATED LEARNING

The finding and themes of the study resulted in the development of the following integrated model for work integrated learning. As can be seen from Figure 1 there are six connected links of stakeholders in the work integrated learning process:

Link 1 - Global Environment: The economic revolution and the movement of nations towards knowledge-based economies have presented new challenges to universities and business to provide students who are locally based have a global awareness and a syllabus which is internationally bench-marked to produce students for a global market**.** Furthermore, the identified need to create a more skilled workforce in response to recent globalizing impacts has led to the convergence of higher education and new economic needs being treated with greater urgency in the previous decade.

Link 2 – Government/ Professional Bodies: A fine balance is needed between meeting the demands of government and professional bodies and meeting the universities' requirements for high quality learning. Faculties could have a portion of practice plus mini-project that could assist in the professionalization process.

Link 3 – Industry: The industries in which vocations are practised becoming more innovative, creative and flexible in their work methods rather than following empirical, rule-of-thumb procedures handed down by tradition. Industry and universities should re-enforce partnerships and linkages for the purpose of WIL.
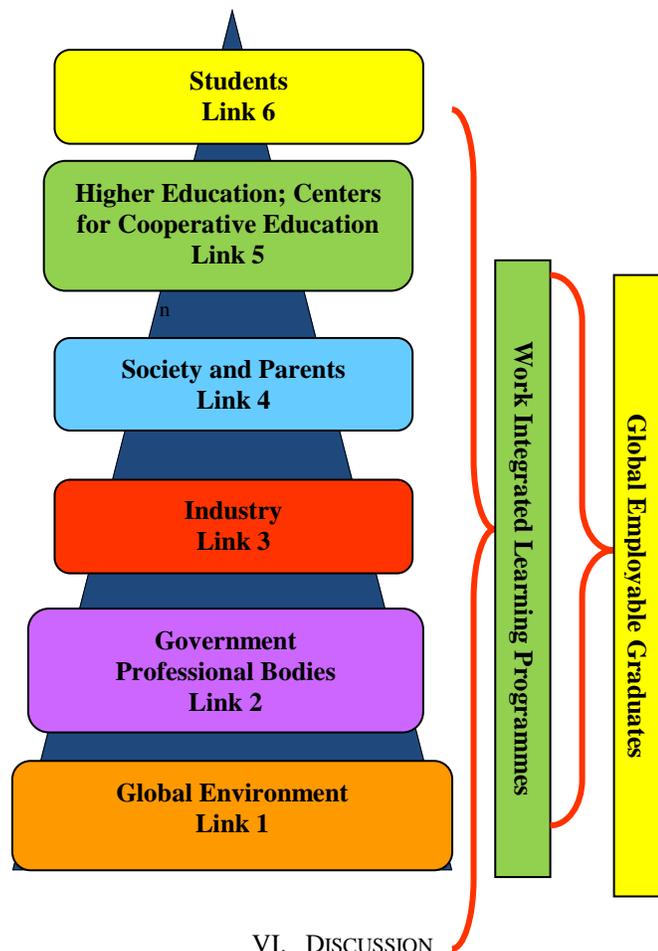
Link 4 - Society and Parents: Careful thought and interaction is necessary in planning entry and exit from any university between the society and parents towards effectively integrate the students'**.** Parent and society are looking into the aspect whether, institutions are contribute to the knowledge economy about different jobs, different industries, specific occupations and to apply what they learn in the classroom to an actual real-world work experience. This is to better place and prepares students in order to place students appropriately.

Link 5 - Higher Education Institutions and Centres for Cooperative Education: Try to improve a student's self-confidence and self-concept, develop student`s social skills, improve practical knowledge and skills and improve employment opportunities. These centres becomes an important aspect in the development of students, and it plays a

very important role in the country especially as it is informed by Kolb experiential learning theory that furthers the connotation of practical and experiential learning.

Link 6 – Students: Students now have the opportunity to learn about different jobs, different industries, and specific occupations resulting in the application of learnt theories in the classroom to an actual real-world work experience. Therefore, university becomes an agent for change. Create cooperative programs where there is links between tacit and explicit knowledge, to draw upon knowledge of students at work.

These six links are in continuous interaction, integration and communication with each other to develop comprehensive work integrated learning programmes which will equip students with the necessary vocational acquired skills and competencies which in turn will result in them being global employable graduates.

enquires market entrants be able to apply the necessary global business skills with a diverse workforce and acumen in 21st century workplaces [23].

Our results highlighted a significant number of stakeholders in the work integrated learning process and the importance of continuous interaction, integration and communication between the different parties. In line with Groenewald [13], it is important to create a system for cooperative education which provides a framework for the integration of effective learning between higher education institutions and the workplace.

The research makes important theoretical and practical contribution. From a theoretical point of view this research adds to the limited body of knowledge and empirical research that currently exist on work integrated learning and cooperative education in the sub-Saharan African context. This research further presents a practical framework that can be used as a guideline in setting up effective and efficient work integrated learning programmes. The framework highlights important stakeholders as well as interactive processes between them that in turn will inform the development of work integrated learning programmes which in turn will lead to graduates that are both locally and globally employable. Moreover, does this research additionally also highlighted the importance of supplementary graduate skills such as cultural intelligence and global citizenship that can be taught as part of work integrated learning programs.

The current research also lends itself to the exploration of future research. The findings of this research can be transformed into a diagnostic tool to test the application of work integrated learning in other contexts. This research can also lead to intervention research to test the effectiveness of skills training of graduates.

VII. CONCLUSION

In conclusion, our research highlighted the importance of work integrated learning programmes in the employability of graduates. Moreover our research also showed that work integrated learning programmes cannot be executed in isolation but should be an interactive process between various stakeholders.

VI. DISCUSSION

The main objective of this research was to develop an integrated model for Work Integrated Learning (WIL). Our results showed in line with previous research that work integrated learning is important to prepare students for their future occupation with the needed competency and skills (see [5] [9] [12] [22] [26]. Furthermore, our results showed additional skill requirements for graduates such as cultural intelligence and global citizenship. This is an important finding as globalisation and the saturation of world markets

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