FACTORS AFFECTING PROGRESS OF SOUTH AFRICAN PLANNING STUDENTS' IN PROBLEM-BASED LEARNING: A CONTEXTUAL APPROACH BASED ON WORK INTEGRATED LEARNING EXPERIENCE

Abstract.

Purpose of the Study- The purpose of this study is to investigate and compare the factors affecting the progress of planning student in an environment that they are assigned to one specific task as compared to where they are assigned into multiple tasks. The paper tends to suggest way to support work-integrated learning for knowledge work as this pose great challenge to future career progression and practice.

Design/Methodology/Approach- A work place scenario is used to compare the knowledge work and knowledge sources used in knowledge workers as it relates to planning students in the two cases selected. A structured questionnaire was used to determine the competences and performance of the student in both contexts. A formal cognitive approach as used in cognitive psychology is used to test competence performance and outcome. Other source of data based on literature review and personal interview was also used.

Findings- The competence performance approach show that students' with multiple task perform better and develop more leadership skill as compared to student on only one specific task throughout the duration of work-integrated learning. Based on this competency diagnosis and competency gap can be embedded into normal working tasks and learning interventions that can inform policy and programme.

Practical Implication- The use of competency performance approach within an organisation can be very useful in unpacking the factors affecting work-integrated learning exercise and the ability of knowledge worker to progress in chosen career.

Key Words: Work-Integrated learning, Competencies, Learning outcome, Workplace.

Introduction

Work-integrated learning programmes (practical) in University courses are not new (Orrell, 2004:1). It can be seen as a result of change from an elite to a mass model of higher education (Light & Cox, 2001), a shift towards more knowledge-based or innovative economies (Wince-Smith, 2006 cited in Heerde & Murphy, 2009:4) and as addressing an age of super complexity (Barbett, 2000, Tsoukas, 2005 cited in Ibid : 3).

This is occurring in the context of both an appreciation of South Africa's labour and skills challenges as well as a greater recognition of the workplace as a unique and valuable learning environment for students. Work-Integrated Learning (WIL) describes the range of educational programs that integrate formal learning and workplace experience. Examples of such programs are work-based projects, unpaid work, apprenticeships, practice firms and co-operative education programs (Atchison, Pollock, Reeders, & Rizzetti, 1999). Higher education Institutions are continually required to assess the employability of students post-graduation. Studies carried out at various levels have shown that higher education institutions have both a responsibility and accountability for building theoretical knowledge and skills required for professional practice within chosen field in students (e.g Bates, 2008, Costley, 2007; Crebert, Bates, Bell, Patrick; Cragnolini, 2004; D'Eon,2005; Lizzio & Wilson, 2004).

Analysis of Work Integrated Learning: International perspectives.

The current interest in WIL in higher education is closely linked to governments' and industries' concern with lifting workplace participation and productivity, address skill and labour shortages and keeping pace with increasing demand and intensifying international competition. A number of studies from the last decades have raised serious

concern about work-readiness of graduates not in terms of graduates lack of disciplinary knowledge but in terms of their generic employability skills.

Research into the benefits of WIL has been collated a number of times, including Dressler and Keeling.s (2004 cited in Heerde & Murphy, 2009) recent overview of outcomes attributed to co-operative education. Their literature review found mostly positive, but sometimes mixed results that have been obtained on the effectiveness of cooperative education in promoting student learning outcomes. These learning outcomes are broader than those generally found in a classroom based course. In their review they distinguish between:

• academic benefits (e.g. increased discipline thinking, increased motivation to learn, improved performance in the classroom),

• personal benefits (e.g. increased communication skills, increased initiative, increased team work and co-operation),

• career benefits (e.g. improved career identity and clarification, increased employment opportunities and increased salaries), and

• work skills development benefits (e.g. development of positive work values and ethics, increased competence and increased technical knowledge and skills).

It is almost a commonplace that people learn by doing. This is consistent with Dewey.s belief that .all genuine education comes through experience (Dewey, 1938, p. 25). Experience in a real life context readily provides the four conditions for effective learning: a knowledge base, a motivational context, learning activity and interaction (Biggs, 1999, pp. 73, 78). WIL provides an opportunity for students to gain experience in the workplace where they apply the problem-solving skills and discipline-based theory

learned in their formal education to an authentic context as a colleague and employee, with all the responsibilities and expectations such a role entails.

However, experience is a necessary, but not a sufficient condition for learning (Kolb, 1984). For learning to occur, learners need to observe and reflect on the experience, develop concepts to make sense of the experience and then apply and test out these concepts through new experiences. Reflection and reflective practice are crucial features in developing the effectiveness of WIL (Coll & Eames, 2004). As Van Gyn (1996) notes: People do not necessarily learn from experience, particularly if they do not think about it or do not take responsibility for its creation. If co-op is only a vehicle for experience to gain information about the work place and to link technical knowledge with work place application, then its effectiveness is not fully developed (Van Gyn, 1996, p. 125). Work-based learning generally has antecedents in varied aspects of university learning including curriculum interventions like co-operative education programs and practicums, negotiated and project curricula, the accreditation of prior learning and the recent emphasis on generic capabilities (Boud, Solomon & Symes,2001). Drawing from these antecedents and on the basis of the many case studies that emerge from them, Boud (2001, p. 48) has identified seven elements that must be included in the design of work-based curriculum to develop broader educational goals:

i. Establish work-based learning as a learning enterprise that, while commonly undertaken at work, is not identical to work.
ii. Address the diverse range of knowledge and skills possessed by students at the commencement of work-based learning.

iii. Locate the outcomes of work-based learning in a framework of levels and standards of achievement.

iv. Promote the development and negotiation of a program of activities.

v. Support the ongoing learning of students in situ.

vi. Encourage critical reflection throughout the programme.

vii. Document learning in a form which can be assessed in terms of the frameworks previously established.

In Australia according to (Orrel, 2004), graduate employability and employment levels are pivotal interests of government and students. Employability, it is argued, has consequent outcomes for university reputations, retention rates and course demand. For university to prosper in a competitive education market, it is essential to ensure that their students are equipped with relevant discipline knowledge and skills as well as generic, transferable skills. The increasing cost of gaining a higher education has reinforced the importance of developing students' 'graduate employability'. Internationally, higher education is called to account for success in the employment of its graduates (Eraut, 1994 cited in Orrell, 2004:1). These changing demands have created an expectation that the sector will respond in innovative ways to meet both learning needs and the career goals of all its students. Recent research in Australia, the United States and the United Kingdom illustrates those students who had undertaken a work-integrated learning experience or a skill development component during their course of study were more likely than others to have reflected positively on their university experience and to have achieved employment within their chosen field (Harvey, et al, 1997 cited in Orrell, 2004).

Aims and Objective of the research:

1. Explore the factors affecting progress of South African Planning Students in problem based learning based on Work Integrated Learning Experience.

2. To compare the competency of students working under multiple task with those on one single task throughout the duration of Work Integrated Learning period.

3. To recommend appropriate intervention strategies

Method: Study Design.

The study was part of a project to explore the perceived factors affecting the progress of South African Planning Students enrolled in the National Diploma programme Town and Regional Planning, University of Johannesburg. Qualitative methodology was used to capture information from participating students and City officials. Focus group discussions were used to fully explore commonalities and differences in experience. Participants were the second year students on WIL at various Departments at City of Johannesburg Metropolitan Municipality. First year were excluded as they are not yet eligible for WIL.

Town and Regional Planning WIL Programme Strategies

The Department of Town and Regional Planning is one of the planning schools out of the eleven planning schools in South Africa. They run programme for National Diploma and Bachelor Technology programme in Town and Regional Planning. Work Integrated Learning is part of the curriculum before students can graduate in the diploma programme. It is an eleven months training in the industry during the second year of study. Since 1987 the University of Johannesburg (then known as Rand African

University) has included a co-operative in the second year of the National Diploma, Town and Regional Planning after first year with students working in paid discipline-related employment for a year before returning to the university to complete the final year of their three-year diploma. The programme is being co-ordinated by an appointed Work Integrated Learning Co-ordinator who manages student database to identify eligible students and issues them letter to introduce them to the industry. The co-ordinator also keeps record of all the stakeholders that employ the student for WIL and also engage with them on constant basis. The students are properly guided on what to be expected at the workplace through training on how to prepare their Cvs, a logbook is also issued to them in which they record all that will be doing in the course of the training. This is very important because according to Orrell, 2004 'Reflection and debriefing on the work by all parties is required to achieve the standards, as well as systematic evaluation for monitoring the quality of learning outcomes'. The case situation for this study is the City of Johannesburg Municipality in Gauteng. The Department maintains very good and cordial relationship with this local authority. This local authority especially the Department of Development Planning and Land Use Management employs about 15-20 students annually. The system is structured in such a manner with well-coordinated interview as if the students are going for formal job. There are four sub units that make up the Department of Development Planning and Land Use Management. They are Geographic Information Systems; Registration, Land Use Management and Strategic Planning and Facilitations. From the period 2008 -2010 the system of appointing students to this local authority typified no preparation as students are left on their own to get employed by this local authority through self-effort with no induction and no close monitoring of what they are actually doing at the area of primary assignment. They were

just expected to bring to the Department their letter of employment after which they were issued a logbook to be filling all they will be doing. The selected students are not rotated among these Departments as they spend the 11 months period either in GIS, Land Use or Registration. Feedback from this exercise at this period indicates that students are not fully challenged in the assigned task. As from 2010, the system changes and students were debriefed and monitored with assistance on how to prepare their Cvs and most importantly the Department decided to rotate the student after every 3months among the 4 departments at City of Johannesburg. This new approach was more engaging fostering partnership and students having holistic training in all branches of Development Planning.

Results of the findings

The study highlights the importance of considering the circumstance students experienced within the work environment within which knowledge and learning results, to structure the course curricula. Most students stated that they would have appreciated support during the industry year, and found the link with the University poor while they were on their co-operative education year. The other highlighting feature from this research was that the best thing student gained from their co-operative education year was the friendships in the workplace. The research shows that formal learning takes place within tutorial activities and lecture series whereas informal learning takes place through interactions within workplace systems and include students understand the ways in which work systems operate, how employees manage their work within this work system, responsibility sharing, team work and reporting system as well as how to address issues of customer relations and protocols. Since the appointment of a WIL Coordinator

and implementation of the new strategy of rotating the students among the various units in the directorate, there was significant increase in the productivity of the student and confidence in the discharge of the assigned duties. There was astute improvement in critical thinking, leadership disposition and interpersonal and self-management of the student who were afforded this new opportunities. Student responses further indicates that their engagement in practical experiences ' processing of land use application' and ' being involved in tribunal hearings' exposes them to learn how to apply theoretical knowledge held, to work-based situation. The findings are in line with Dressler and Keeling.s (2004, ibid) research scenario on outcome of WIL:

• **Academic benefits** (e.g. There was an increased discipline thinking, increased motivation to learn, improved performance in the classroom of the students),. The pass rate rose from 68% to 75%.

• **Personal benefits** (e.g There was an improved. increased communication skills, increased initiative, increased team work and co-operation among the students when they returned to complete their studies),

• Career benefits (e.g. improved career identity and clarification)

• **Work skills development benefits** (e.g. development of positive work values and ethics, increased competence and increased technical knowledge and skills). This point was also supported by the mentors who affirm the astounding improvement in the students' work ethics and dispositions. Inspite of the above benefits there is need to look at potential challenge that confronts WIL. One fundamental challenge that WIL presents to universities relates to WIL as pedagogy. Embedding WIL in the curriculum in a way that produces good quality learning outcomes which address graduate attributes and employability skills is a significant challenge and requires a sophisticated understanding

of the field if further research can be undertaken in this area. There is also the challenge of students getting placement as most employers are complaining of lack of resources to maintain the students and even if a student want to volunteer, there is sceptism not to go against labour legislation in terms of paid labour.

CONCLUSION

In conclusion, it is suggested that university-based curricula, and in particular, practice-based curricula be based around specific values, which include building knowledge through action, and the inclusion of professional practice and research, in preparing students to be accountable and manage workplace experience. Students and employers at the local authority alike recognize the importance of integrating theoretical and practical knowledge through work-based experiences. There is need for higher education curricula to include work-based learning experiences, or higher education academics to evaluate the implementation of their curricula, and or curricula to be further developed based on assessing student university-based and work-based learning experiences and the evaluation of curricula implementation, to facilitate the achievement of set learning outcomes. There is need for academic institutions to constantly monitor the students involved in WIL and to take into serious considerations feedback from the students and employers to guide further strategies. Reshaping elements or our universities in order to better facilitate and manage WIL is a key challenge that many universities are beginning to undertake. There are many areas of the university that can potentially be involved in supporting WIL practice, including the academic/course coordinator, school/faculty, a central WIL unit, academic support, careers services, external engagement office.

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