

DU PLESSIS, E.C. 2010. STUDENTS' EXPERIENCES OF WORK-INTEGRATED LEARNING IN TEACHER EDUCATION. *PROGRESSIO: SOUTH AFRICAN JOURNAL FOR OPEN AND DISTANCE LEARNING PRACTICE*. AUGUST. VOLUME 32(1):206-214.

STUDENTS' EXPERIENCES OF WORK-INTEGRATED LEARNING IN TEACHER EDUCATION

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ABSTRACT

Work-integrated learning (WIL) is a defining element of a holistic educational strategy known as cooperative education, which advocates the formal integration of structured real-life experiences (workplace or community service) into the overall programme curriculum. To investigate the current model of teaching practice at a distance learning institution, data were collected by means of a literature review (including constructivist learning as theoretical framework), semi-structured and open-ended questions in interviews. The research highlights the need for more training in lesson planning, specifically training in specific learning areas, learning outcomes and assessment. It is also clear that South African WIL will need to be supervised in all stages of implementation to ensure that the set objectives are realised. The study highlighted the importance of practical teaching, as well as specific problems experienced by students during practical teaching.

KEYWORDS

Work-integrated learning (WIL), teaching practice, distance education, teacher training programmes, constructivist perspective

INTRODUCTION

Currently there are various models of teaching practice at different institutions. For example at the University of Pretoria, Postgraduate Certificate in Education (PGCE) students do 10 weeks' practical teaching, while the North-West University prescribes at least two weeks practical teaching. The University of Johannesburg states a practical teaching period of between eight and 10 weeks. At the Nelson Mandela Metropolitan University and the University of the Free State the practical teaching period is prescribed by senate at will.

Several studies in distance education (teacher education) reveal that the organisation of practice teaching for teacher trainees presents both logistical and educational difficulties (Aldridge, Fraser and Ntuli 2009: 147). The main idea that one has to understand about open distance learning (ODL) is that all systems have to be integrated to support the academic enterprise and the student. One of the biggest problems for distance education, particularly in our context as a developing country, is overcoming transactional distance. There is a transactional gap between students and the institution, between students and lecturers/tutors, between students and courseware and between student and student. It is the cognitive space between learning peers, teachers and content in a distance education setting (Moore 1993). The University of South Africa (Unisa with its nearly 300 000 students, for example, is faced with unique and formidable challenges – including student teaching practice – in the training of teachers. Lecturers at Unisa were urged by the Higher Education Quality Committee (HEQC) to improve the students' teaching practice experience. According to the HEQC (2008) requirements, selection of schools, placement of students, training of mentors and mentoring during the teaching practice period and assessment of students' competence and feedback to the university needed improvement.

Although Unisa consulted various models from other institutions and the Norms and Standards document for Educators (Department of Education 2000), the only guidelines regarding teaching practice were found in the latest Government Gazette (Department of Education 2007: 13-15) which stated that the practical teaching for the 480 credit B.Ed. qualification should be equivalent to a year (120 credits). Furthermore, no requirements for practical teaching were given for the PGCE qualification. This leaves a distance learning institution in a dilemma about how to structure the students' practical teaching experience.

This article focuses on the trends and challenges associated with the work-integrated learning (WIL) of students enrolled for education programmes at a distance learning institution. The

specific aims are to evaluate the current model of teaching practice in view of the South Africa's Higher Education Qualification Council's (HEQC) feedback on the teaching practice of distance learning students and to investigate changes in the existing teaching practice model for distance learning students to encompass work-integrated learning. Feedback received from the HEQC (2008) review gave Unisa lecturers and programme managers much to think about in terms of improving students' experiences of teaching practice or losing accreditation for the B.Ed. and PGCE programmes. According to Cushen (2005: 14), the professional development of an undergraduate student is important, but has often been done informally in the past. This is changing and the focus is now on how to assess personal attributes.

Teaching practice is a form of WIL, which is an extinct form of learning experience. All components of students' teaching practice must be based on the key features of WIL, which are alluded to later on. The following challenges are part of WIL during teaching training: the selection of schools, the placement of students, mentoring during the WIL period, the assessment of students' competence and feedback to the university. Universities also need advice on insurance (Unisa 2010) and the safety of students, for example. Another issue that cannot be ignored is that of disadvantaged students who may have less access to work placements. WIL programmes must continue to cater for these groups since they derive significant benefit from participation.

The teaching and learning structures of many South African schools do not reflect the rapid changes being experienced in society. For example, because of high levels of teacher and learner absenteeism, not all schools have a serious culture of learning. This means, therefore, that not all schools are suitable for practical teaching and WIL.

The following matters were raised during personal interviews with Unisa students and teachers during school visits:

1. The majority of school principals welcome Unisa students because of their maturity and training.
2. Some students have had bad experiences at certain schools, because they were unprepared for practical teaching.
3. Most students need more guidance with regard to WIL and practical teaching.

The findings of this study are intended as guidelines for improving the practical teaching component at distance learning institutions.

In the next section, the background to the problem and relevant theory are given. Thereafter the research design and data-analysis are presented, followed by a discussion of the findings and key recommendations on the teaching practice component of distance learning students.

PROBLEM STATEMENT

WIL usually falls into three primary categories, namely, industry internships, fieldwork and project-based placements (Bennet 2005: 3). This article will emphasise the first category in an attempt to reach a better understanding of the relationship between open and distance learning (ODL) and WIL processes. It is a challenge in distance education to be able to provide hundreds of thousands of students from South Africa and beyond with access to higher education and to supervise students while they are busy with their teaching practice (HEQC 2008). The following questions thus need to be answered:

What are the students' views on teaching practice and problems they experience while doing their teaching practice and to what extent can teaching practice challenges in a distance learning context be overcome by adhering to the features of WIL? In other words, how can student teachers acquire the necessary knowledge and skills to perform by engaging and interacting in

the school “situation” under the guidance of expert teachers, thus empowering themselves and making the abstract knowledge they acquired through their studies meaningful for application in real-life situations (schools)?

To address these challenges the constructivist theory on teaching and learning was used as theoretical orientation. WIL and ODL will also be discussed as part of the theoretical orientation.

THEORETICAL ORIENTATION

Constructivist perspective on teaching and learning

The constructivist perspective was used in research by Piaget (1955), John Dewey (1966), Vygotsky (1978) and the gestalt psychologist, Bruner (1973). This approach favours student-centred teaching and learning and putting the students’ own understanding at the centre of educational events (Woolfolk 2007: 481). Constructivists argue that students should deal with complex situations rather than merely simplified problems and basic skills drills.

Most constructivists share two main ideas: (1) that learners are active in constructing their own knowledge, and (2) that social interactions are an important part of knowledge construction (Bruning, Schraw, Norby and Ronning 2004: 195). Constructivist learning does not focus on individual learning, but rather on working together to negotiate or construct meaning. To accomplish this, students need to talk and listen to one another.

Constructionists are also concerned with how common-sense ideas, everyday beliefs and commonly held understandings about people and the world are communicated to new members of a socio-cultural group (Gergen 1997). Relationships between and among teachers, students,

families and the community are the central issues. Windschitl (2002) suggests that the following activities encourage meaningful learning

- Students' ideas and experiences relating to key topics such as lesson plans, teaching media and assessment criteria are elicited, followed by the fashioning of learning situations which help students to elaborate on or restructure their current knowledge.
- Students are given ample opportunity to engage in complex, meaningful, problem-based activities, such as designing lesson plans during the teaching practice periods at schools.
- Students receive external support in the form of coaching from supervisor teachers/mentors, as well as hints, feedback, models and reminders.
- Students work collaboratively. They are encouraged to participate in task-oriented dialogue with one another.
- When planning and presenting lessons, students are asked to apply knowledge in diverse and authentic contexts to explain ideas, interpret texts, predict phenomena and construct arguments based on evidence, rather than to focus on the acquisition of predetermined "right answers".
- Supervisor teachers/mentors employ a variety of assessment strategies to understand how students' ideas are evolving and to give feedback on the processes and the products of their thinking.

According to Collins, Brown and Holum (1991), students should reflect on their progress and compare their teaching to their earlier performances and to the performance of the supervisor teacher.

These guidelines taken from the constructivist perspective on teaching and learning should be applied to teaching practice. This will help students to put plan into practice and to learn from experience, which bring us to WIL.

Work-integrated-learning (WIL)

WIL is a defining element of a holistic educational strategy known as cooperative education, which advocates the formal integration of structured real-life experiences (workplace or community service) into the overall programme curriculum. It is a departure point for applied learning that focuses on work experience under supervision and/or mentorship of the workplace. It is a learning programme that focuses on the application of theory in an authentic, work-based context (Mbango 2009).

WIL is thus a distinct form of learning experience, which incorporates the workplace setting as a component of learning (Bennet 2005: 3). Students learn from authentic work experiences and are required to produce evidence of such learning in the form of portfolios, projects, reports, logbooks, applied assignments and/or presentations to panels for evaluation purposes. Some of the fundamental features of WIL (for the purpose of this article) are as follows:

- The appropriate vocational community is a key role player in the curriculum decision-making process.
- The learning outcomes determined during the curriculum development process are translated into WIL guidelines for the student and the workplace mentor. The learning materials include assessment tasks, criteria, and so on.
- The university actively engages in marketing cooperative education in order to secure sufficient and suitable WIL placement opportunities. Learner support staff further facilitates the placement of unemployed students.
- The university mentors individual students and plans and enters into contracts with institutions.

- The university manages the regular and systematic *in situ* monitoring and assessment of WIL, and remains responsible for verifying the attainment of the predetermined WIL outcomes by individual students.

For learning to come from the experience of participating in WIL activities, these activities, according to Bennet (2005: 5), must provide a meaningful experience that is intended and accredited by the institution.

The aims of WIL are:

- to expose students to the real world of the workplace while studying;
- to assist students to gain general work experience in a professional work environment;
- to help students develop a range of valuable generic skills; and
- to make the transition from student to employee easier (Mbango 2009).

WIL seems to be the ideal way for the student to become an effective teacher because, according to Milne (2005: 5), the student interacts with the organisation, staff and other role players during practical teaching. Students learn by observing and participating and by intervening and influencing what is taking place. The problem still remains, however, that most of these features are not currently being implemented in teaching practice. The organisation of teaching practice in an open distance learning environment has huge challenges.

Open distance learning (ODL)

According to the Open University in the United Kingdom, ‘distance learning’ is studying on one’s own, at home or wherever is suitable and ‘open learning’ entails studying in one’s own time. You read course material, work on course activities, and write assignments (The Open

University 2009). Open distance learning is a multi-dimensional system, which aims to bridge the time, as well as the geographical and transactional distance between student and institution, student and lecturer/tutor, student and courseware, and student and peers. Ideally students should be in the position to gain the prerequisite experience within their own environment.

Internationally, the trend in most countries is to use distance education to increase accessibility and participation rates. Central to this endeavour is a sensitivity related to accessibility, retention, throughput and relevance. An important distinction can, however, be made between distance education which begins with a method (a way of teaching) and open learning which begins with a purpose (i.e. developing education delivery strategies).

The introduction and integration of computer technology into society has dramatically increased the opportunities for social interaction; it is also transforming the learning environment.

Whereas collaboration and peer instruction were once only possible in shared physical space, learning relationships can now be formed over distances through cyberspace. Computer technology is a tool that learners can use in the changing contexts to mediate and internalise their cultural learning. Recent research suggests that the means to change learning contexts through technology is a powerful learning resource (Crawford 1996). Unisa is now in the process of re-engineering its business to become a modern open distance learning institution and is used in the case study which is discussed next.

CASE STUDY

Practical teaching at Unisa

One of the biggest problems facing distance education, particularly in our context as a developing country, is overcoming transactional distance. Print study packages, the internet

(digital study material) and technology can bridge the transactional distance if designed and applied by competent lecturers and tutors. Tutors and face-to-face tuition, such as practical teaching in the classroom situation, are beginning to play a more prominent role.

A point of criticism in the report of the review panel for the Higher Education Quality Committee (HEQC), who did an auditing of the University of South Africa (Unisa) during 2007, relates to the practical teaching component in Unisa's B.Ed. and PGCE programmes. The question that has to be answered is how can Unisa improve its practical teaching programme? Is WIL a possible solution to this problem and what are the implications? Unisa uses WIL as an umbrella term. It includes teaching strategies such as clinical training, teaching, internships, professional practice, experimental training/learning and work-based learning.

Unisa is concentrating on bridging the transactional distance between student, institution and teacher. This entails developing courseware for modules or programmes from scratch and integrating student profiles, stakeholder needs, orientation and counselling needs, tutoring, mentoring, supervision, multimedia, assessment, and so on. The aim would be to ensure that students develop a truly integrated approach to learning through a combination of academic and work-related activities. The coherent integration of various learning resources into a flexible pattern that enables effective learning to take place is the hallmark of best ODL practice because it underwrites a concept of teaching that transcends the categories of "contact" and "distance".

To reach the ODL ideal towards which the university is working, a few issues need serious attention.

- The three B.Ed. and three PGCE programmes presented by Unisa have a total of 12 000 registered students, all of whom need to do at least 10 weeks of practical teaching. Other options, such as a one-year practical teaching (bearing 120 credits) period, are under scrutiny.

- The problem is, however, not so much the time frame of the teaching period as the placement and assessment of the students. One must also bear in mind that, while Unisa has been training teachers (including teaching practice) for many decades and has much relevant expertise, it has not kept abreast of new challenges such as technology, the teaching profession, community needs and HEQC imperatives.
- Problems facing practical teaching via distance (ODL) include the placing of students at approved schools, mentoring and supervising them during school visits, building relationships with all stakeholders, assessment and feedback.
- The relevant academic departments provide monitoring guidelines and assessment criteria, and remain ultimately responsible for summative assessment and for ensuring that students have acquired the required competence. The problem is, however, the lack of appropriate resources and support systems to accomplish this.

Research method

The researcher used a qualitative research approach which, according to McMillan and Schumacher (2001: 393), extends the understanding of a phenomenon and contributes to educational practice, policy making and social consciousness. One of the single-system design research methods, namely case study (Strydom, Fouché and Delport 2002: 153) was used.

Some of the advantages of the single-system design are the following:

- A model of evaluative accountability is provided to therapists, clients and stakeholders.
- It is basically a do-it-yourself procedure which keeps costs down.
- The single-system design is a direct form of research and results are immediately available.
- The problem of external evaluators is eliminated, because individual workers do their own research.

- It provides good feedback for practice intervention methods, especially for those who are primarily task centred.
- The single-system design is practice based and therapist oriented (Strydom et al 2002: 161-162).

Purposive sampling was used to select 40 students enrolled for teaching practice modules in the B.Ed. and PGCE programmes at Unisa. The students selected for the research were from different schools, namely from multicultural, single-culture, parallel-medium, dual-medium and single-language schools. Some students were from suburbs, some from rural areas and some from city centres. Data were gathered using qualitative research interviews. Twenty-three (23) of the selected students were enrolled for the B.Ed. programme and 17 selected students were enrolled for the PGCE programme. The intention was to elicit the students' views on teaching practice and problems they experience while doing their teaching practice. The students were asked three semi-structured (biographical information) and 12 open-ended questions. The questions were geared to elicit views on the study material as part of their preparation and the school context (including mentorship and assessment) as it affected teaching practice.

Participants were asked how they experienced the role of the school context where teaching practice takes place, the role of the teacher (as mentor) and the way assessment is done. For each of the above they were asked: What worked well? What did not work well? What can be recommended?

Trustworthiness

Various measures were taken to ensure that the results are a function solely of the participants and not of possible biases and motivations of the researcher. A lengthy data collection period was used to conduct the research. The 40 participants drawn from schools with poor human resources as well as from schools with rich human resources represented a meaningful variety of

cultural groups and contributed through personal interviews. After every interview the data were transcribed. This gave the opportunity for continual data analysis and comparison to refine ideas. With regard to the participants' language, the interview questions were phrased in accordance with the participants' language competence and were therefore less abstract. Observations and interviews were conducted in schools where teaching practice reflects the reality of life experience. Furthermore, by a process of continuous self-monitoring and submission of all phases of the research process to rigorous questioning and re-evaluation, the researcher took care to guard against being biased. Transcriptions and field notes were used to record verbatim accounts. Descriptions were almost literal and any important terms were those used and understood by the participants. Verbal data were captured by using tape recorders during the interviews.

FINDINGS

The data rendered useful information on the role of Unisa, the school and the student. The biographical information of the students was as follows:

From the 40 students, 37.5% were male and 62.5% were female students.

Figure 1

Purposeful sampling was used to select the 40 information-rich participants whose ages ranged from 20 to 40+. The participants were also representative of different cultural groups.

Figure 2

The data-analyses highlighted two aspects of teaching practice, namely study material and school context.

Study material for teaching practice

The data collected indicated that students complimented Unisa for clear study material and tutorial letters and well-prepared documents based on a syllabus, which was in line with the National Curriculum Statements documents. The well-structured lesson plans with their clear guidelines and practical examples and ideas to use in classroom settings, all of which made lesson preparation easy, were also commended. The clear layout of study material served as a broadly based framework for teaching practice. A 43-year-old female student from a rural single-medium high school knew what “is expected of me as student” and she also admitted that this meant she was expected to read more. A 35-year-old female student at a well-resourced private school felt that the Unisa’s material supplemented existing knowledge. A 25-year-old male student from a well-resourced school felt that the theoretical foundation provided good preparation for most practical situations. He knew exactly what was expected from him for practical teaching: “This translated the theory into practice very nicely for me”. According to the participants, the study material also taught them how to do assessment and they found the learning outcomes essential tools.

In addition, they felt that Unisa gave them the freedom to do teaching practice when it suited them because they had to arrange their own teaching practical at a school, which is an advantage of ODL since it is not semester bound.

On the other hand, some of the students indicated that guidelines were not sufficient. One student felt that the academic introduction to practical teaching was poor. More information regarding learning outcomes and assessment standards was required. A 23-year-old male student from a parallel-medium school remarked that he experienced a discrepancy between the guidelines of the Department of Education and Unisa's guidelines regarding the content of a lesson plan. According to the Department of Education, an activity can be considered to be a lesson on its own, while Unisa requires both theoretical content and activities for one lesson. This confused the student. Another student stated that she was uncertain about how to complete the Learning Area Didactics section of the workbook and requested more information regarding terminology. There was a lack of in-service training to inform students about what was expected of them in each of the following: Learning Area Didactics and Subject Didactics.

Furthermore, the sequence of the academic programme was criticised: one student bemoaned the fact that she only completed the assessment module in her second year. She felt she should have done it prior to the teaching practice period. Another said it was difficult to do proper assessment "due to lack of information beforehand". According to one student, since the material did not explain well enough how to improve lessons, he had been compelled to ask other teachers for clarification of terminology used in the course and for assistance with understanding materials/concepts. The students would prefer to do lesson plans electronically as it is time-consuming to write out lessons by hand.

The following recommendations were given by students: students requested information about learning outcomes and assessment standards; they needed examples, specific guidelines giving the lecturer's expectations, lists of recommended books to use for school subjects and more teacher involvement. Students need more guidelines on assessment and assessment strategies, as well as guidelines on preparing lessons.

In terms of whether their studies prepared them for teaching, most students believed that they were prepared in most respects.

Figure 3

The school context

Regarding the schools in which students were placed and their mentors, the following responses were given by students:

Students were welcomed by school principals and received all the necessary support. One student in a rural well-resourced single-medium high school said that she felt totally involved in the school – “just like part of the school”. One student in a well-resourced model C high school said: “Practical experience (standing in front of a class) gives you an understanding of the reality of teaching”. One student placed in a well-resourced private school, commented on an excellent, well-established team that gave him support through the beginning stages as well as material for lesson plans. Most of the students found the schools very supportive: they felt part of the school and it was great for them to be involved in practical teaching. Another student, a 34-year-old male from a private well-resourced school testified that the teaching practice in schools worked well: “I can fill a notepad because there was exciting things that happen, or different things that happen, different situations come up which is really what is fascinating about the whole teaching environment which is so dynamic, like it changes all the time and you never know what is going to come round the corner next.”

Teachers were found to be accommodating and helpful in general, although some students felt that they had been thrown into the deep end. Some students had a range of teachers and were exposed to various teaching approaches. Most of the students were exposed to the full spectrum of teaching activities and were treated as true colleagues. Students felt that most schools were professional, with good resources like computers, whiteboards and access to the internet, science laboratories, and textbooks for teachers and learners. All the same, a minority of students felt unwelcome and sensed that teachers at schools felt threatened by them as students. One student indicated that schools need to spell out their expectations of students.

Before individual students can go to specific schools, they must find out whether their subject is offered at the school. Most of the rural and townships schools have internet facilities, but lack other resources, such as books in their libraries. Schools are willing to accept Unisa students for their teaching practice. It is very difficult to do teaching practice in a number of schools, as required by the HEQC, because lesson themes, for example, differ from school to school. Moving from one school to another, one would have to start all over again with lesson planning. Not all the schools have trained mentors to supervise students. Mentors or heads of department who do the assessment during teaching practice do not always follow specific guidelines. The assessment differs for Subject Didactics and Learning Area Didactics.

The findings reflect a triad of interdependent role players in the teaching practice arena: Unisa, the school and the trends and challenges associated with the reality of teaching practice for distance education students enrolled for the B.Ed. and PGCE programmes at the university. Linking the above-mentioned findings and discussion with the aims of investigating, namely to evaluate the current model of teaching practice, to consider the views of the South Africa's Higher Education Qualification Committee's (HEQC) feedback on the teaching practice of distance learning students and to investigate changes in the existing teaching practice model for

distance learning students to encompass work-integrated learning, the following conclusions can be made:

- Reduce student numbers. One way of doing this will be to introduce admission examinations, limit registrations and restructure the B.Ed. and PGCE programmes.
- Pay more attention to partnerships between the university and individual schools. An effective partnership should deliver a range of outcomes that provides benefits for all parties (Smith et al. 2000, in Cushen 2005: 16).
- Set up a mentoring support system in every school and extend the capacity of the existing training and mentoring programme.
- Mentors should be given specific guidelines and assessment criteria for assisting and evaluating students.
- Implement a placement scheme, which will provide relevant and adequate student support as well as sufficient resources to make the programme successful. More funding and academic and administrative staff is needed.
- Students should be given more time to do observation before they start presenting lessons.
- Establish a support department to deal with travel arrangements and the placing of students at various schools.
- Improve study material to prepare students more effectively for WIL. The study material should include specific guidelines and examples.
- Pay more attention to the sequence in which students take modules. They must, for example, do modules on programme development and assessment before they do modules on subject didactics, learning area didactics and teaching practice.
- Implement a standardised system for a number of lessons in Learning Area Didactics and Subject Didactics.

- Standardise the forms that students and mentors need to complete as part of their assessment while doing their teaching practice.
- Support students by observing classroom interactions, improving communication between lecturers and students, and assisting them with problem-solving skills.
- More research should be done to develop a WIL model to ensure that all stakeholders are involved in the design process. More time should be allowed for preparation, interpretation, supervising and assessment.

HEQC requirements have indicated that the organisation of Unisa teaching practice needs to be improved in many ways relating to placement of students, mentoring and assessment of students in particular. Regarding Unisa's preparation of students, it is clear that the main issues that need to be addressed relate to greater clarity on what would be expected of them (learning outcomes, assessment criteria, guidelines on how to develop lesson plans – including practical examples, and lesson content).

RECOMMENDATIONS

The following recommendations serve as overall recommendations for ODL institutions involved in teaching practice of students:

- Meet industry needs.
- Make sure that WIL is intentional, organised and accredited.
- Oversee the placement, including orientation and coaching of the student.
- Provide a safe working environment.
- Communicate with the WIL co-ordinator for any work-related issues involving the student.
- Complete work assessment forms on the student's performance.

- Discuss the student's progress and meet with the WIL co-ordinator should a site visit be arranged.
- Make sure that students develop a truly integrated approach to learning through a combination of academic and work-related activities.

CONCLUSION

The findings of this research and the discussions regarding the reality of teaching practice and WIL have given insight into the students' experience in the school context. WIL as an attitude or paradigm that seeks to make use of and explain a number of theories (Calway 2006: 9) has been addressed. WIL should enable students to move freely within an active learning environment. "WIL should be expressed through the imperatives of work readiness; life-long learning; human and social potential; internationalised thinking; knowledge transfer and a career development focus" (Calway 2006: 9). This is in line with the theoretical framework of constructivism where students should deal with complex situations and where students learn through social interactions.

The research, based on comments from students, highlights the need for more training in lesson planning, specifically training in specific learning areas, learning outcomes and assessment. It is also clear that South African WIL will need to be checked in all stages of implementation to ensure that the set objectives are realised.

The question is thus not whether ODL Institutions are going to be responsive, but rather *how* they should respond "in a manner that retains and promotes our prime role and responsibility as educators... Higher Education cannot but be conscious of its links to industry. This involves practical placements of students and transfers of knowledge and development" (Pityana 2006: 5). The coherent integration of various learning resources into a flexible pattern that enables

effective learning is the hallmark of best ODL practice, and it underwrites a concept of teaching that transcends the categories of “contact” and “distance”. WIL seems to be the ideal way for the student to become an effective teacher.

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