

CO-OPERATIVE EDUCATION: AN EFFECTIVE EDUCATIONAL STRATEGY

Monica Stanley

Abstract

Co-operative Education is an integrated learning model that consists of an academic and Experiential Learning component. The concept of Co-operative Education is based on the application of theory and knowledge obtained in the classroom, and the development of practical skills using current technology and techniques in a real workplace context. Co-operative Education is formally recognised as an educational strategy and academic program that is part of the integrated curriculum. The primary aim of Co-operative Education is to prepare a graduate for a particular vocation or profession and is based on a co-operative partnership between a learning institution, an employer and a student, with specified responsibilities for each stakeholder or partner.

Experiential Learning is a component of Co-operative Education and consists of interactions such as a formal training module, vocational learning and career experiences. Experiential Learning plays a crucial role in the development of attitudes such as responsible citizenship and professional ethics. The interdependence of the academic and Experiential Learning component of certain curriculum provide a learning experience adequate to meet the demands specified in learning outcomes of teaching programmes and qualifications. The purpose of this paper is to introduce the fundamental concept of Co-operative Education and to briefly explain and evaluate the current practices at the Central University of Technology, Free State.

1. DEFINITION OF CO-OPERATIVE EDUCATION

It is evident in literature that there have been a number of attempts to define the term Co-operative Education. In 1962, the National Commission for Co-operative Education (2002) was formed in the United States of America to promote Co-operative Education and to raise funds to sustain the practice (Carlson, 1999). The Commission defined Co-operative Education as:

"... a structured educational strategy integrating classroom studies with learning through productive work experiences in a field related to a student's academic or career goals. It provides progressive experiences in integrating theory and practice. Co-op is a partnership among students, educational institutions and employers, with specified responsibilities for each party."

Co-operative Education is formally recognised as an educational strategy which integrates a student's academic studies with work experience in participating employer organizations.

2. PHILOSOPHY AND ORIGIN OF CO-OPERATIVE EDUCATION

Co-operative Education has its origin in 1906 with Professor Herman Schneider, an engineering professor at the University of Cincinnati. His personal experiences and observations convinced him that many professional concepts and skills could not be learned effectively in the classroom, but required practical experience for their understanding and mastery (Sovilla & Varty, 2004). Professor Schneider developed his plan for hitching theory and practice together, the co-operative plan of education. This plan entails that a substantial component of the engineering curriculum should involve the coordinated alteration of on-campus study and off-campus, real-world, paid experiences.

It must be acknowledged that Schneider's plan to bridge the gap between theory and practice was an idea that was right for its time. The fact that Co-operative Education has been around for almost a century can be seen as a direct result of the accomplishments in efforts to improve and expand on the ideas of Herman Schneider and the early pioneers.

Sovilla & Varty (2004) stated clearly the importance and significance of the many forms of work-integrated learning programs that are in place throughout the world. This is a positive sign indicating that a significant percentage of educators are aware of the value of applied education. The Central University of Technology, Free State (CUT) is not excluded from this approach. A number of programmes provided by the CUT consist of periods of formal instruction and periods of Experiential Learning in the work situation. The system of Co-operative Education has been implemented and supported by the CUT since its inception in 1981.

3. COMPONENTS OF CO-OPERATIVE EDUCATION

Co-operative Education is an integrated model consisting of an academic learning component and an Experiential Learning component. The academic and Experiential Learning components are interdependent.

The academic component is offered by formal instructions (classroom teaching) in lecture rooms, and is supplemented by experimental work in laboratories. The Experiential Learning component is usually completed in its entirety in industry, commerce or the public sector.

The Experiential Learning component has to allow for career development as focussed on the present needs, the short term projected needs as well as the expected long-term needs of both the worker (student) and the employer.

Experiential Learning consists of a structured programme and it is planned according to "job descriptions" and career requirements and is integrated with the university's courses.

4. CO-OPERATIVE EDUCATION SUCCEEDS ON MANY DIFFERENT LEVELS

Co-operative Education has proven itself to be beneficial to all three parties concerned, namely, the student, employer and educational institution.

4.1 Benefits to the students

Characteristics that students seek in discipline-related positions are ones in which content reinforces coursework and new material and skills, input into design and execution, team exposure, flexibility, and variety in duties are available (Reeve,2003).

Everyone in society is directly impacted by education that supports workforce development and good citizenship. Co-operative Education has an important role to play in this process, if it can successfully contribute to the development of student learning outcomes and demonstrate this contribution to an interested and concerned public.

Further benefits indicated by the World Association for Co-operative Education (WACE) and the South African Society for Co-operative Education (SASCE) include the following:

- Students develop a greater interest in academic work when they experience the inter-relationship of their work with the principles and theory that they are studying.
- Co-operative Education enables students to realistically evaluate their career decisions and interests early in their years of studies.
- Students expand their critical-thinking skills, knowledge, enthusiasm, self-confidence and focus.
- Remuneration during the period of Experiential Learning places tertiary education within the reach of more young people as it helps to defray educational expenses.
- Students get exposed to and learn about the professional and work ethics connected to a specific career. Upon graduation, they have the experience and the skills to succeed in the workplace, along with valuable professional contacts and references.

4.2 Benefits to the Employers

Young (1997) developed and administered an international survey to assess how employers in six countries (Australia, the Netherlands, South Africa, the UK, and the USA) valued Co-operative Education students. The focus of the study was to determine if the employers from each of these countries identified and rated the various benefits and costs of hiring co-op students in the same way. Young (1997) pointed out that the benefits are similar across

countries. The short term benefits identified by the respondents included the ability to hire students to complete project work, having access to additional help or assistance and providing enthusiastic and motivated employees. The long-term benefits however included having the ability to prescreen future employees and to train better graduates who understood the company and were more committed long-term employees.

Further benefits indicated by the World Association for Co-operative Education (WACE) and the South African Society for Co-operative Education (SASCE) include the following:

- Many employers regard Co-operative Education as a significant component of their recruitment strategy as there is consistent evidence that participating in Co-operative Education leads to higher acceptance ratios and a better recruitment yield.
- Improved staff efficiency as students can be used to relieve higher paid permanent staff of routine tasks, to handle peak workloads and to carry out special projects.
- If a Co-operative Education graduate is recruited to a permanent position, significant less training time is needed.
- The employment of students can increase the motivation of permanent staff with whom they work.
- Co-operative Education strengthens the relationship between employers and educational institutions. Advantages include cross-pollination and improved career-orientated education as employers contribute to curriculum design and educational staff gain access to work experience.

4.3 Benefits to Educational Institutions

In a study involving 71 graduates, it was found that 72 per cent of non-co-operative graduates would have, with hindsight, chosen to undertake a co-op degree (Weisz, 2001).

Pauling (1996) suggested that as universities compete to become centers of excellence they would seek support from commerce, industry, and the professions so that they appear the most attractive to students by providing clear pathways to jobs and careers. He concluded that universities who couple their academic programs with co-op would have the edge in any competitive education marketplace.

Further benefits indicated by the World Association for Co-operative Education (WACE) and the South African Society for Co-operative Education (SASCE) include the following:

- Educational Institutions through liaison with industry, business, government and communities receives feedback on the quality and relevance of its educational programmes and service delivery.
- It enables the institutions to form research opportunities and innovative partnerships with industry, business, government and communities and in this way Co-operative Education contributes to the development of communities and the economy, regionally and nationally.
- By using the Experiential Learning as an extended classroom/laboratory, institutions have access to the latest and most sophisticated equipment.
- Co-operative Education creates opportunities for industry-based sabbatical opportunities for academic staff.

5. MANAGEMENT OF CO-OPERATIVE EDUCATION

Wilson (1997) proposed that three models could be identified for the management of Co-operative Education in academic institutions, namely: the centralized model, the decentralized model and the integrated model.

The **centralized model** places the full responsibility for the administration (both academic and non-academic), student placement, marketing and academic oversight within a single structure that operates independently of faculties.

The **decentralized model** on the other hand places full responsibility for the management, marketing, placement and academic control of Experiential Learning within the faculties with little or no central support structures.

The **integrated model** involves a multifaceted approach of coordination relative to serving students, employers and the institution. This is done by centralizing employer and marketing administration within the Co-operative Education department and decentralizing academic administration and instructional matters to faculties.

The CUT employs the integrated model, whereby placements are largely done by the Centre for Co-operative Education and the monitoring and evaluation of students are handled by the relevant academic departments. Although this model serves the CUT well, many intervening variables can have an impact on the ability of co-op programs to insure that all parties involved obtain the benefits they and we expect.

The CUT faces the following challenges:

- Due to the limited capacity of staff it is not possible to extend the services of Co-operative Education to all instructional programmes offered by the CUT.
- Too few visits by academic staff to industry for monitoring purposes due to time constraints placed on academic staff.

- Competition regarding the placement of students for Experiential Learning from other educational institutions. The Free State Province can only accommodate a limited number of students due to the limited economic activities and infrastructure. A lot of traveling and time away from the office is thus required to visit employers in other provinces and the necessity of establishing and maintaining good relationships with them.
- To ensure that students meet the requirements from industry in terms of skills and social conduct.
- To ensure that acceptable working conditions are created to eliminate the possibility of co-op students being exploited.

It is important to acknowledge that the above mentioned challenges are continuously addressed by the CUT to ensure the effective management of Co-operative Education. Deliberate interventions might be required from time to time to ensure that the objectives of Co-operative Education as set out in the vision of the Centre for Co-operative Education are met.

"In accordance with the all-embracing mission of the university, the Centre for Co-operative Education co-operates with employers to assist students in realising their full potential by utilising the principle of work integrated learning".

The essence of managing Co-operative Education lies in the fact that it is a dynamic educational model, consisting of three partners, namely, the educational institution, the student and the employer. Each of these partners plays a significant role in the process of training students for a career orientated occupation or profession.

5.1 Role of the educational institution

In collaboration with representatives from industry, the university compiles courses to meet the needs and work requirements of industrial practice.

In order to keep pace with recent developments in technology these courses are continually revised and members of the lecturing staff are expected to keep abreast of developments in their field of expertise.

Since the CUT offers career-orientated education, combined with laboratory work in appropriate subjects, staff members should not only have good academic qualifications, but, also, where applicable, the necessary industrial experience.

5.2 Role of the employer

The employer creates the opportunity and climate for the full development of the student, so that the capabilities of the person are utilized optimally for the mutual benefit of both employer and student.

The employer plans the Experiential Learning programme in conjunction with the University in order to achieve a systematic development of the knowledge, skills and intellect of the student, in accordance with the career requirements concerned. The employer exercises control over the execution of the programme and evaluates the work and progress of the student.

The student should also form part of and interact with the work team so that information is exchanged and a professional attitude is fostered. The self-confidence of each individual should be developed through the gaining of experience in all aspects of the job.

Employers contribute directly to the composition of courses and syllabuses, through representation on advisory committees of the University and the other forms of consultation.

5.3 Role of student

Students should ascertain that their chosen field of study and career correspond with their abilities and interest. Professional advisory services for this purpose are provided by some companies and by the University.

In consultation with the University it is also the responsibility of the student to ensure that he/she is receiving the prescribed Experiential Learning. Students are required to meet both the academic and Experiential Learning requirements for the obtaining of a qualification. They are also, from time to time, required to submit reports to their employer and the University as part of their evaluation.

6. ATTENDANCE PROGRAMMES

The ideal attendance programme, which integrates theory and practice most effectively, is achieved by alternating periods of University study with periods of Experiential Learning.

The Experiential Learning portion of the total duration of an instructional programme is not the same for every course, and varies according to course requirements.

Flexibility in attendance programmes can often be accommodated so that employers and students may adjust University attendance according to their own needs. The flexibility plays an important role in the success of the CUT's Experiential Learning program.

7. THE PLACEMENT PROCESS

The Centre for Co-operative Education at the CUT provides information for students regarding Experiential Learning positions at companies. University staff assists and advises bona fide students on placements for Experiential

Learning. Students are placed with employers who have the necessary training facilities and programmes.

The Centre for Co-operative Education at the CUT liaises, where necessary, with companies regarding the placing of students.

8. CONTROL OF EXPERIENTIAL LEARNING

Academic studies at the University are thoroughly evaluated by means of official examinations. Experiential Learning is evaluated by the company and the University. For the awarding of a qualification, it is necessary for the student to achieve the required standard in both the academic field and Experiential Learning.

Guidelines for Experiential Learning programmes for every field of study are drawn up jointly by the University and representatives from industry. As far as possible, employers devise their programmes according to their individual needs.

The following method of control is recommended:

- A record of Experiential Learning (logbook or other method of control) is used for each student. The student must complete the book or reports, and, where necessary, the employer is responsible for evaluation.
- The supervisor evaluates and signs off the record of training at prescribed frequencies.
- After each period of Experiential Learning, the student makes an appointment with a member of staff in the relevant department, at which time an interview is conducted with the student.

9. STUDENT REGISTRATION

The fundamental success of Experiential Learning lies in the control of the program. The registration of students for Experiential Learning forms a key element of this process.

Students must register with the University for each period of Experiential Learning as any other subject. This can be the result of the requirement of the instructional offering or for the mere fact to ensure that the applicable student information is available for quality assurance purposes.

10. VISITS TO COMPANIES BY UNIVERSITY STAFF

Effective work-site visits by staff are essential for successful Co-operative Education programmes. These visits go beyond “seeing how the student is doing” and accomplish short-and long-term objectives, which include: Assessment of the student’s development, facilitation of closer collaboration

between industry and the institution, and promotion of the educational objectives of the programme.

University lecturing staff visit companies to ensure that the Experiential Learning is proceeding as planned. Training is also discussed with students and the employer.

Some visits are routine while others result from problems reported by students or employers, but the most important are those made to determine progress.

The most crucial period of adjustment for student is the first five or six weeks, and this should be kept in mind when planning visits.

The number of visits to each company/student during Experiential Learning placement is determined by considerations such as:

- Duration of the Experiential Learning placement with the employer.
- Number of students placed with the same employer.
- Geographical location.
- Staff and time available.
- Budget constraints.

11. ACCREDITATION OF EXPERIENTIAL LEARNING PARTNERS

Accreditation should be seen as a strengthening of the partnership between the educational institution and employers. It is an expression of confidence in the training offered by an employer.

Accreditation should ideally be preceded by discussions with the employer and visits to the premises by University staff to ensure that the infrastructure is adequate for the prescribed Experiential Learning.

The University department must also be satisfied that students will be guided by suitable mentors. A "checklist" must be prepared before the accreditation visit to ensure that all aspects are addressed.

At the CUT it is standard procedure for the head of department concerned to notify the Centre for Co-operative Education as to the outcome of the accreditation visit and the period for which accreditation is recommended. The Centre issues a certificate of accreditation based on the recommendation of the head of department.

12. CONCLUSION

The competitive edge of universities of technology is founded largely in the practice of Co-operative Education and the CUT is synonymous with Co-operative Education. It is an educational model embraced by CUT since its inception in 1981.

Although co-op programs are diverse and the descriptions and terms to define them vary, they all share the goal of guiding students through the process of

integrating academics with learning in the workplace. Institutions of higher education exist to preserve fundamental knowledge and to develop new knowledge in each discipline they represent. The success of co-op education programmes depends largely upon close co-operation with commerce, industry, government and the community. The challenge of education and training providers, in collaboration with industry and commerce, is to strive towards the improvement and upliftment of the education and skills base. This will ensure that the economy is being driven by a workforce that meets the demands of a knowledge and technology driven society.

The challenge for the CUT is to facilitate appropriate interventions to ensure that as an institution we maintain the educational goals in Co-operative Education. This will ensure that that Co-operative Education brings education and industry together in a mutually beneficial and informing way.

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