

Preparing underprepared students for Higher Education and beyond: The Development and Implementation of an Integrated project

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Abstract

A current problem faced in South Africa, is that university graduates are weak and underprepared for the work environment. The purpose of this study was to assist students in bridging the aforementioned gap and to ease the transition from theory to practice. The aim of the study was to critically analyze the development and implementation of the integrated project. This study targeted the first-year National Diploma: Cost and Management Accounting (Extended Curriculum Programme) students, who had been identified as being underprepared for higher education. The factors that initiated the design and development of the integrated project were the South African Qualifications Authority, Critical Cross Field Outcomes and the University of Technology's National Diploma in Cost and Management Accounting exit level outcome, which promote lifelong learning. The integrated project was an authentic assessment which required students to transfer their theoretical knowledge obtained in the classroom, to assist small businesses within the community. Academics should be encouraged to use authentic problems, in the designing of assessments which will promote student centeredness and lifelong learning. With the continuous engagement of an integrated project, these first-year underprepared students will be better equipped to adjust and excel in the work environment.

KEY WORDS: Student under preparedness, student centeredness, Critical Cross Field Outcomes, integrated project, lifelong learning

Introduction

Worldwide, businesses are faced with immense challenges due to increased competition and technological developments (TalentLens, p. 6). To cope with these challenges in the work environment, higher education institutions have been mandated to impart transferable skills and attributes to graduates. This will ensure their effective transition to the world of work as well as their sustained employability in a world that is so rapidly changing (Coetzee, 2014, p. 1). Higher education is however not addressing this mandate and the current

problem faced is that many university graduates are weak and underprepared for the work environment and lack the ability to transform theoretical knowledge to workplace practice (Jansen, 2012, p. 1) . McPhun (2010, pp. 1-2) concurred with this finding by indicating that a gap exists between the requirements of a university qualification compared to what graduates are expected to accomplish in the real world. Bridging this gap is essential as higher education is required to contribute to the skills required by the economy (Griesel & Parker, 2009, p. 2). According to Mlambo Ngcuka the former deputy president of South Africa as cited by (Griesel & Parker, 2009, p. 2) although students qualify with a tertiary education, there are many unemployed graduates, who lack the knowledge to be self-employed. This is due to the fact that the current assessment practices in higher education does not prepare students with the necessary skills and competencies that is required in the work environment. The main factor for this is that numerous stand-alone formative assessments is the dominate assessment method which compartmentalise learning at the Universities of Technology (Vanderheide & Walkington, 2008, p. 351). Integrated assessments can make a significant contribution to bridge the gap that stand-alone formative assessments have in the transfer of knowledge and learning from the university domain into the world of work. Vanderheide and Walkington (2008, p. 351) concurred that integrated assessments can enhance the link between theory and practice. Developing an integrated project to assist in bridging this identified gap will be beneficial to accounting educators, who can use this integrated project in conjunction with their current assessment practices to provide students with the knowledge and skills to be self-employed. The integrated project was an assessment that was developed for and conducted with the first-year Extended Curriculum Programme (ECP) students in the Department of Management Accounting at a University of Technology (UoT) in South Africa. The purpose of the integrated project was to assist students' transition into higher education as well as prepare them for the world of work.

The main contribution of this paper is to encourage the use of similar interdisciplinary integrated projects as a method of assessment linking the theory of the modules covered within the programme to practices within the work environment. This practical application of knowledge will enhance lifelong learning and employability.

The rest of the paper has been structured in the following manner. The significance and purpose of the study has been addressed. The background to the study was provided. Thereafter assessment within higher education and bridging the gap between graduate employability and the requirements of the workplace, were discussed. The design and development of the integrated project, and the problems encountered in the design and development were elaborated on. Lastly, the conclusions and recommendations were derived, and the limitations as well as areas for further research were identified.

Significance and purpose of the study

Students come from a schooling system which promotes teacher-centeredness (Watkins, 2014). However, the higher education context supports student-centeredness, where there is an expectation of students to actively engage in learning. According to Musgrave (2014), the South African government labor skills report stated that the outcomes-based education system was producing matriculates who could not cope with the academic demands of higher education. This was due to the fact that, at school level, the complexity of subjects

has been diminishing and learners are engaged in rote learning. Consequently, first-year university students cannot cope with the quantity of the work and cannot learn independently (Musgrave, 2014). According to Thomas (2011, pp. 28-29), the gap in the students' under preparedness for university exists from schooling. The stand-alone formative assessment methods employed at a university level has perpetuated this gap.

The intention of this integrated project was to assist students in bridging the identified gap and to ease the transition from theory to practice.

The aim of the study is to critically analyze the development and implementation of the integrated project in the Department of Management Accounting at a University of Technology in South Africa.

This aim will be addressed by the following objectives:

- To investigate the need for authentic integrated projects at Higher Education Institutions;
- To ascertain whether an authentic integrated assessment bridges the gap between graduate employability and the requirements of prospective employers;
- To explore the implementation of the integrated project; and
- To inform and improve assessment practices in the Higher Education sector.

In order to achieve the aforementioned objectives, the article will address the design, development and implementation of the integrated project.

Literature review

Background to the study

Over the last ten years the higher education sector in South Africa underwent various changes, with regards to a series of merges. This has resulted in the formation of new institutional types namely:

- Traditional universities which offer formative and professional undergraduate degrees as well as a large scope of honors', masters and doctoral degrees at a post-graduate level e.g. Bachelor of Commerce in Accounting;
- Universities of technology which offer career-focused and vocationally based undergraduate diplomas and degrees as well as a fairly limited number of masters and doctoral degrees e.g. National Diploma: Cost and Management Accounting; and
- Comprehensive universities which offer a range of both formative and vocationally based qualifications, that is a combination of what could be attained at a traditional university or a university of technology e.g. National Diploma in Accounting or a Bachelor of Commerce (South Africa Department of Higher Education, 2012, p. 37).

At a UoT there is a considerable overlap in the curriculum which incorporates vocational, occupational and professional education. The purpose of a UoT is to produce technologists, technicians and other middle level skilled graduates to enter the job market for specific occupations. A UoT also focusses on equipping students with a foundation to lead to professional registration (South Africa Department of Higher Education, 2012, pp. 1,11).

In addition to the aforementioned, empirical evidence revealed that the South African government is putting pressure on universities to increase their enrolment targets, to align with the government's target of 1, 62 million enrolments by 2030 (South African Government Online, 2014) . However, the performance patterns in higher education, in South Africa indicated that a large number of students are underprepared for higher education, despite having met the entry criteria of the relevant programmes. Scott, Yeld, and Hendry (2007, p. 42) concurred that the under preparedness of students should not be misinterpreted as students lacking the potential to succeed but rather, as them coming from a disadvantaged educational background. Scott explained that this disadvantaged educational background has not engaged students with the key academic experiences and approaches required as a foundation in the higher education environment.

Consequently, the Department of Higher Education and Training in South Africa (DHET) has made foundational provision available to support these underprepared students in the form of an extended curriculum programmes. These programmes were designed to provide students with the academic support needed to make the transition into higher education and successfully complete their qualification (Scott et al., 2007, p. 43; South Africa Department of Higher Education and Training, 2012, p. 1). The students under preparedness for the demands of higher education initiated the development of the integrated project. The focus of the ECP's at the University of Technology is on integrating student academic development into the overall curriculum to achieve a coherent and meaningful learning experience for students.

Assessment within Higher Education

There are four forms of assessments applicable in the higher education context, namely formative, summative , integrated and diagnostic assessments (The South African Qualifications Authority, 2015, pp. 14-15). Boud and Falchikov (2006, p. 401), explained that formative assessments focus solely on improving student problem areas in module content in preparation for subsequent assessments. A combination of formative assessments makes up a student's year mark for that specific module, which enables them to write the final summative assessment of the module. Boud and Falchikov (2006) further explained that a summative assessment encapsulates the entire module content for the course and ultimately determines whether or not students can progress to subsequent levels of study. An Integrated assessment consists of a holistic set of theoretical and practical components where the student's conceptual understanding of the theory is applied in practical scenarios. Diagnostic assessments are baseline test used to determine strengths and weaknesses in the learning area before learning begins.

According to Osborne, Dunne, and Farrand (2013, pp. 1-2), assessment is the means of enhancing graduate employability and bridging the gap between university and the world of work. Assessment is the most important component of the teaching and learning process Boud and Associates (2010, p. 75). Consequently it has a major impact on how students' learn Ku (2009, p. 71). Shay (2008, p. 595), concurred with Boud and Associates (2010) that the most powerful form of student learning, is assessment. Students study subject content on the basis of how they are going to be assessed (Lombardi, 2008, p. 1). As mentioned earlier teacher-centeredness dominates the schooling system, where the educator provides the information and students are passive by merely absorbing the

information provided and recalling it at a later stage (Huba & Freed, 2000, p. 1). Student-centeredness is where students actively engage with the material and learn for themselves and the educator acts as a facilitator (Huba & Freed, 2000, p. 1). Active engagement provides the necessary trigger to recall required information for subsequent levels of study and lifelong learning. These triggers are there because they have engaged with the material and understood the concepts been taught to them on a whiteboard (Paul, 1992). The student-centred approach is linked to the constructivist approach. This approach supports participative teaching, lifelong learning as well as problem based learning, which has become an important component to the higher education system in South Africa (Lombard, 2008, p. 1029).

The UoT's assessment policy is aligned to the constructivist approach and requires academics to transform their assessment methods, to promote student-centeredness and lifelong learning. A challenge in higher education in South Africa is that academics are required to attain pass rates to meet the Department of Higher Education benchmarks. Consequently academics have become mere "slaves to the subsidy devil" (Jansen, 2012, p. 1). Generating a high throughput has become the main priority at universities, as opposed to providing quality assessment which engage students in transformative learning.

Since this study was conducted at a UoT, the UoT's assessment policy, of integrated assessment refers to "a holistic approach, in that the tasks combine the assessment of a variety of different skills at the same time; and/or assess a number of outcomes together; and/or assess a number of assessment criteria together; and/or use a combination of assessment methods and instruments; and/or acquire evidence from other sources, for example, portfolios, journals, logbooks, supervisor reports" (Durban University of Technology Centre for Excellence in Learning and Teaching, 2014, p 6). This policy promotes the use of integrated assessments across different levels and within modules (subjects) or in the capstone module (Durban University of Technology. Centre for Excellence in Learning and Teaching, 2014, p. 3). However, this form of assessment is not widely used at the University of Technology.

Authentic assessments mirror real life scenarios and enhance the link between theory and practice (Vanderheide & Walkington, 2008, p. 351). This method of assessment was chosen for this study as it was the researchers' intention to take a real life problem currently faced in South Africa and link it to the theory taught in class.

Bridging the gap between graduate employability and the requirements of the workplace

As mentioned earlier, the constructivist approach which has become an important part of higher education in SA, incorporates problem based learning, student-centeredness and continuous student engagement. The Critical Cross Field Outcomes (CCFO's) originated from the constructivist approach to learning and are required by the SA National Standards Body to be incorporated within all qualifications (South African Qualifications Authority, 2006, p. 2).

CCFO's assessed in the integrated project

The aim of South African universities of technology is to provide career-orientated education by developing student research, problem solving and creative thinking skills (Griesel & Parker, 2009, p. 2). These skills are essential in the work place to ensure that students can become lifelong learners. According to Kong and Seng (2006), students have the right to be prepared for the real world and it is the responsibility of academics within higher education context, to prepare them for the world of work.

The South African National Standards Body (NSB) regulations require all qualifications that are registered on the National Qualifications Framework to have both specific and Critical Cross Field Outcomes (CCFO's) which promote lifelong learning. According to the (South African Qualifications Authority, 2006, p. 2), the following Critical Cross Field Outcomes formed the basis for the development of the integrated project:

- 'Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made;
- Work effectively with others as a member of a team, group, organisation, community;
- Organising and managing activities responsibly and effectively;
- Collect, analyse, organise and critically evaluate information;
- Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written persuasion;
- Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation;
- Reflect on and explore a variety of strategies to learn more effectively; and
- Explore and develop entrepreneurial opportunities'.

With the integrated project students gained an understanding of the parts in relation to the whole, which is essential for lifelong learning (Paul, 1992, p. 20). The integrated project encouraged students to think and provide advice like management accountants. Hesketh (2011, p. 14) reinforced this by explaining that assessments which are based on students rendering advice even at a foundational level will develop students' competencies as well as their technical knowledge. The integrated assessment was aligned to the exit level outcome of the National Diploma: Cost and Management Accounting, which is graduates being capable of practising as accountants and rendering accounting services to commerce, industry and the public sector (Faculty of Accounting and Informatics, 2015). This outcome also formed the basis of the development of the integrated project. The design of the integrated project was based on achieving the CCFO's as well as the programme exit level outcome. Empirical evidence by McPhun (2010, p. 6) revealed that student perceptions after an integrated project was that they now had an ability to work towards meeting deadlines and could collaborate as a team. McPhun (2010, p. 6) also revealed that employers' perceptions of graduates after an integrated project were as follows:

- Enhanced job readiness;
- Increased ability to grasp concepts of the work place requirements, which focused on the practical application of real workplace processes;
- Increased ability to work on multi-faceted tasks; and
- An increased level of professional maturity which was not present in typical graduates.

From the literature, it is evident that an integrated project could assist in bridging the gap between the graduate employability and the workplace requirements.

The methodology will address, the design, development and assessment of the integrated project.

Methodology

The target population for this study was the first-year National Diploma: Cost and Management Accounting (Extended Curriculum Programme) students. The aforementioned students had been recognized as being underprepared for University based on the grades that they obtained for English and Mathematics in the grade 12 examination.

Design phase

The academic module structure that formed the basis for the development and design of the integrated project is outlined in table 1.

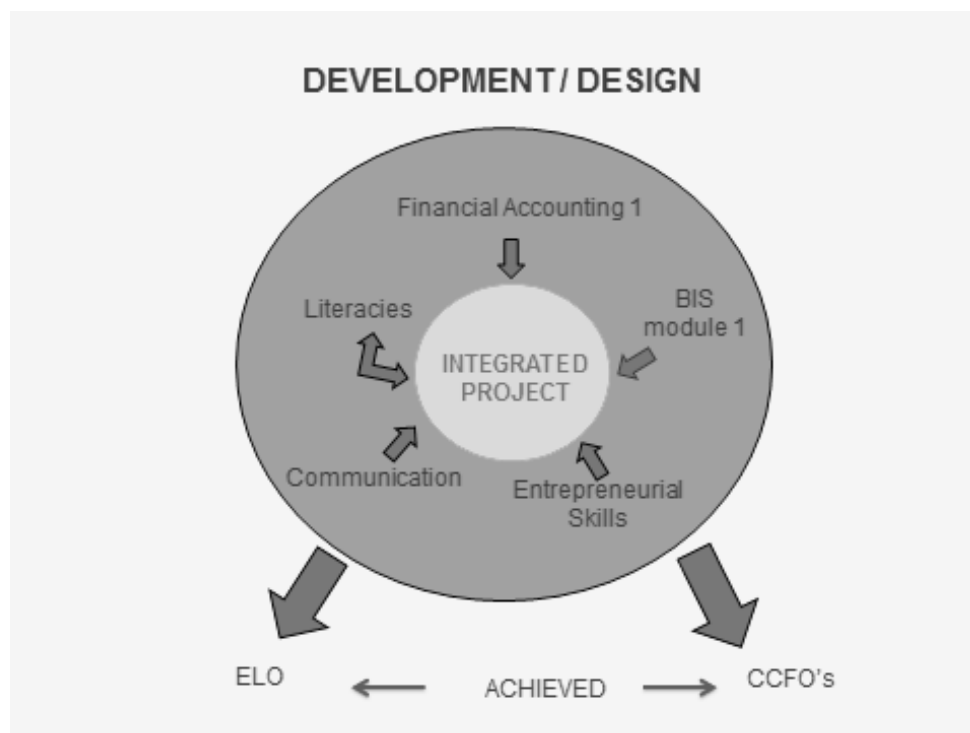
Table 1. The University of Technology's National Diploma: Cost and Management Accounting (ECP) and mainstream first-year academic module structure

Year	ND: CMA (ECP)	ND: CMA (Mainstream)
Year 1 Semester 1	Accounting Professional Practice * Quantitative Literacy * Financial Accounting 1 (Module 1) Communication 1 Business Information Systems 1 (Module 1)	Financial Accounting 1 (Module 1) Communication 1 Business Information Systems 1 (Module 1) Cost Accounting 1 Economics 1 (Module 1)
Year 1 Semester 2	Accounting Professional Practice Financial Accounting 1 (Module 2) Business Calculations Entrepreneurial Skills	Financial Accounting 1 (Module 2) Business Calculations Entrepreneurial Skills Economics 1 (Module 2) Commercial Law for Accountants 1

Table 1 outlined a comparison of the ECP and Mainstream module structure for the first year. The ECP structure mirrored that of the mainstream programme, with the exception of two additional literacy subjects, Accounting Professional Practice and Quantitative Literacy. These two additional modules were the foundational provision that were included in the programme and taught the students how to write and perform numerical calculations using the discipline specific knowledge. To ensure that the ECP students succeed on the mainstream programme, it was necessary to provide these students with the academic foundations through a learning experience which was structured and purposeful.

Figure 1 highlighted the structure used in the development and design of the integrated project.

Figure 1. Design and Development of the integrated project



Source: Self-generated

As figure 1 illustrates, the integrated project was designed for the first-year ECP students and incorporated all the modules covered within the first-year syllabus. The project was run from February through to September and, it was only assessed in the Accounting Professional Practice module. This is an annual module run throughout the year which is evaluated on a continuous assessment basis. This module provided development in the higher education literacies as well as information literacy. Some of the outcomes of this module were to identify and apply language practices appropriate to the Management Accounting discipline.

Within the Accounting Professional Practice module, the integrated project was structured using the scaffolding technique whereby each assignment provided the knowledge base required for the current assignment and also prepared students for the subsequent assignments. The framework of the integrated project was set up as a guide to enable students to achieve the National Diploma: Cost and Management Accounting programme exit level outcome. As mentioned before, this outcome is graduates being capable of practising as accountants and rendering accounting services to commerce, industry and the public sector. In keeping with the occupational and professional education the National Diploma: Cost and Management Accounting curriculum is aligned with that of CIMA.

The Integrated Project was assessed using the following weighting:

Assignment 1: 10%

Assignment 2: 20%

Assignment 3: 20%

Assignment 4: 50%

The above weightings were decided based on the requirements and complexity of each assignment. In addition, each assignment was designed and developed using the scaffolding approach, whereby students built on the knowledge and skills learnt in the previous assignment.

In compliance with the continuous assessment policy, after the first submission of each assignment, students are provided feedback on their work and are also allowed an opportunity to rectify errors and resubmit their assignment to obtain a better mark.

Structure of the Integrated Project

A Real life problem faced in South Africa, as indicated by the former Minister of Trade and Industry Trevor Manuel (Molelemane & Ressel, 2014).

“With millions of South Africans unemployed and underemployed, the government has no option but to give its full attention to the task of job creation, and generating sustainable and equitable growth. Small, medium and micro-enterprises represent an important vehicle to address the challenges of job creation, economic growth and equity in our country. We [the government] believe that the real engine of sustainable and equitable growth in this country is the private sector. We are committed to doing all we can to help create an environment in which businesses can get on with the job. We believe in the principles of working together with our partners in the private sector – big and small business – in realizing our hopes and aspirations for this economy. “

It has been 20 years since this statement was made and South Africa is still lagging behind other developing countries in promoting the growth and sustainability of small businesses. According to Molelemane and Ressel (2014), small businesses represent 98% of the total business population in South Africa. However, 87% of these small businesses are survivalists who do not make a contribution to the growth of the economy. The challenge is to provide these businesses in the informal economy with the necessary support to ensure that they are in existence in the foreseeable future so that they make a positive contribution to the growth of the South African economy.

The integrated project's overall requirements were as follows: As a management accounting student, each group would be required to provide the chosen small business with the necessary financial advice to ensure this transition from a survivalist to a profitability entity that will exist in the foreseeable future.

The assignment specifications were made explicit in the form of detailed rubrics. According to (Paul, 1992, p. 20), it is important to make the requirements of an assessment explicit in

order to enhance the understanding of the assignment specifications. With this enhanced understanding, students would be able to accomplish the assignment tasks and achieve the specified outcomes, thus enabling them to become lifelong learners.

The specifications of each part of the project together with the relevant due dates are stipulated below.

Assignment 1: Research the need for the development and sustainability of small businesses

Each group must write a report that highlights the need for the development and sustainability of small businesses. This report must include the most recent developments and at least 2 examples of small businesses that have made an impact on the economy and on community upliftment. The report must be structured as follows: introduction, body and conclusion.

The following rubric was used to assess Assignment 1:

Table 2. Rubric for Assignment 1

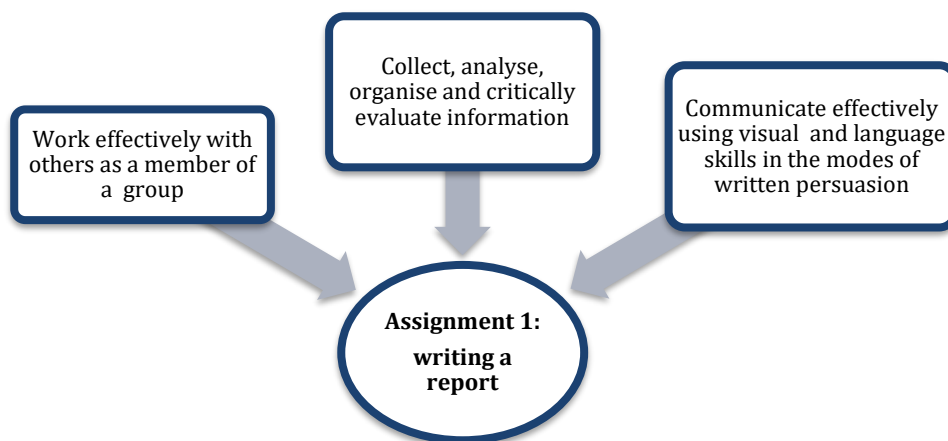
Rubric: Assignment 1	Exceptional	Very Good	Fairly good	Acceptable	Not acceptable
Presentation (5 marks)					
Professional in appearance: neat typing and spacing; hardly any typing errors. Pages have been numbered correctly.	5	4	3	2	0
Structure / Organization/ Language(20 marks)					
The introduction outlined what would be discussed in the assignment.	4	3	2	1	0
The body was divided into paragraphs & it was clear what the main theme of each paragraph was & all were appropriate to the question/s.	4	3	2	1	0
The conclusion connected all the ideas covered in the assignment.	4	3	2	1	0
The student linked ideas in a logical way. The links between paragraphs and ideas are clear and coherent.	4	3	2	1	0
The grammar & spelling were good.	4	3	2	1	0
Content (25 marks)					
It is evident that the student has understood the assignment questions.	8	6	5	3	0
The information included in the assignment was correct & relevant to the question. The arguments were all supported by specific examples. It is clear that the student has synthesized information in order to answer the question. Students have incorporated suggestions from the first draft.	17	14	12	7	0
Information retrieval and referencing (30 marks)					
The student has written in his/her own words & in the text, has correctly referenced information used from various sources.	20	15	12	8	0
The references at the end of the assignment were written in Harvard referencing technique.	10	8	6	4	0

Group work (20 marks) (As per contribution report)	
TOTAL/100	
General Comments:	

Since this assignment required students to research and draft a report the weighting allocation was only 10%.

This assignment should enable the students to achieve the following Critical Cross Field Outcomes, which are highlighted in figure 2.

Figure 2. Assignment 1 CCFO's assessed



Source: Adapted from (South African Qualifications Authority, 2006, p. 2)

Assignment 2: Negotiate a relationship with a small business

Each group was required to prepare a report that provided the details of the establishment of a relationship with a chosen small business. Each group was also expected to highlight the challenges faced in forming this relationship with a small business as well as the motivations used to successfully form the relationship. The chosen small business needed to be in the surrounding area of the DUT. The relationship entailed obtaining an agreement by the business owner to work with the group and assisting students with the necessary information in completing the subsequent assignments. A consent letter signed by the business owner was also required as proof of the permission granted to students to work with the business as part of their integrated project.

The following rubric was used to assess Assignment 2:

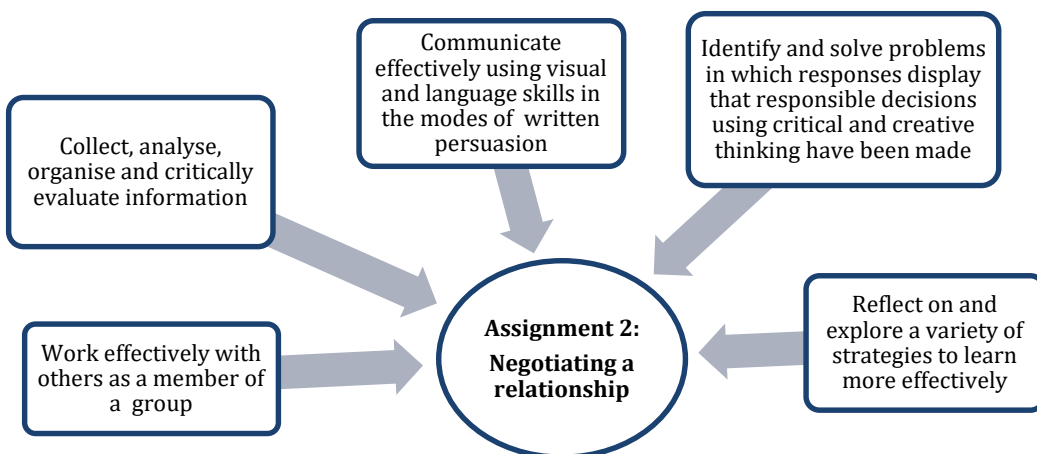
Table 3. Rubric for Assignment 2

Rubric: Assignment 2	Exceptional	Very Good	Fairly good	Acceptable	Not acceptable
Presentation (5 marks)					
Professional in appearance: neat typing and spacing; hardly any typing errors. Pages have been numbered correctly.	5	4	3	2	0
Structure / Organization/ Language (35 marks)					
The introduction outlined what would be discussed in the assignment.	7	6	5	3	0
The body was divided into paragraphs & it was clear what the main theme of each paragraph was & all were appropriate to the question/s.	7	6	5	3	0
The conclusion connected all the ideas covered in the assignment.	7	6	5	3	0
The student linked ideas in a logical way. The links between paragraphs and ideas are clear and coherent.	7	6	5	3	0
The grammar & spelling were good.	7	6	5	3	0
Content (40 marks)					
It is evident that the student has understood the assignment questions.	15	12	9	6	0
The information included in the assignment was correct & relevant to the question. The arguments were all supported by specific examples. It is clear that the student has synthesized information in order to answer the question. Students have incorporated suggestions from the first draft.	25	20	15	10	0
Group work (20 marks) (As per contribution report)					
TOTAL/100					
General Comments:					

Building on their knowledge regarding the development and sustainability of small businesses, this assignment required a more hands on approach where students had to interact with small businesses. Consequently, this assignment was weighted 20%.

This assignment should enable the students to achieve the following Critical Cross Field Outcomes, as identified in figure 3.

Figure 3. Assignment 2 CCFO's assessed



Source: Adapted from (South African Qualifications Authority, 2006, p. 2)

Assignment 3: The business operations of the macro business

Each group went on an arranged excursion to a macro business, within the production industry. Prior to the excursion, the groups were given a questionnaire, which elicited information about the business operations. Post excursion, each group was required to prepare a report on their observations made during the visit. The observations were based on good business practices identified; health and safety precautions, business layout, ethical considerations, staff morale, etc. These observations were used to advise the chosen small business accordingly. The groups were also required to develop a mission statement for their chosen small business.

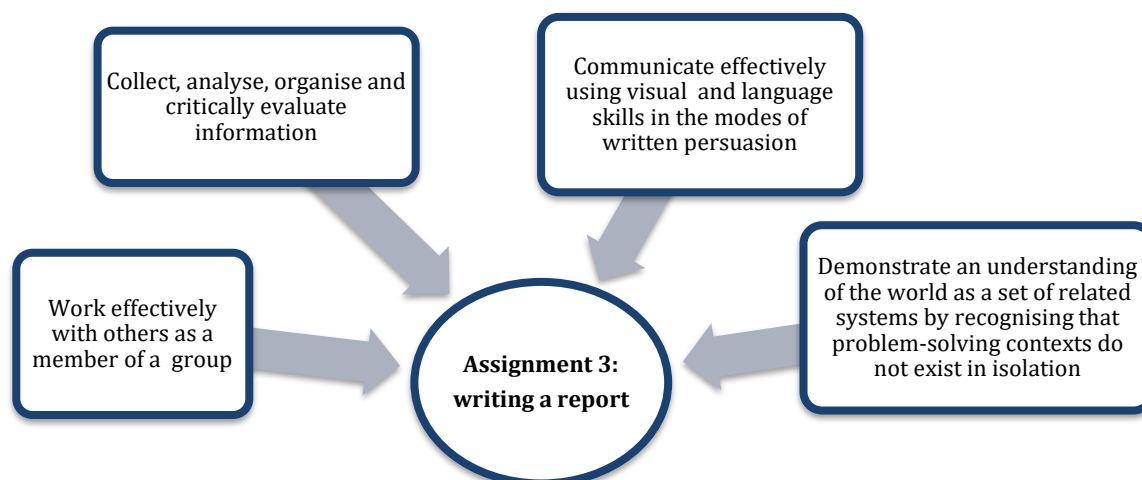
The following rubric was used to assess Assignment 3:

Table 4. Rubric for Assignment 3

Rubric: Assignment 3	Exceptional	Very Good	Fairly good	Acceptable	Not acceptable
Presentation (5 marks)					
Professional in appearance: neat typing and spacing; hardly any typing errors. Pages have been numbered correctly.	5	4	3	2	0
Structure / Organization/ Language(5 marks)					
The introduction outlined what would be discussed in the assignment. The body was divided into paragraphs & it was clear what the main theme of each paragraph was & all were appropriate to the question/s. The conclusion tied all the ideas introduced in the assignment together & finished with a general conclusion. The grammar & spelling were good.	5	4	3	2	0
Content (20 marks)					
It is evident that the student has understood the assignment questions. The information included in the assignment was correct & relevant to the question.	20	15	12	8	0
Group work (20 marks) (As per contribution report)					
TOTAL/50					
General Comment;					

After successfully negotiating a relationship with a small business, students were exposed to the operations of a successful macro business. This exposure provided an insight to the business operations which could be incorporated into their chosen small business. The weighting on this assignment was 20%.

This assignment should enable the students to achieve the following Critical Cross Field Outcomes, as identified in figure 4.

Figure 4. Assignment 3 CCFO's assessed

Source: Adapted from (South African Qualifications Authority, 2006, p. 2)

Assignment 4: Design a business plan

Each group was required to design a business plan with a follow-up report, which suggested possible ways in which the chosen small business could improve their day-to-day operations and, consequently, make the transition from survivalist to a profitable entity that will exist in the foreseeable future.

Assessment specifications: the students were required to critically observe business operations and engage the business owner in conversation to extract information about the day-to-day operation of the business. Groups had to collect and organize the accounting information in order to draft the financial statements for the small business.

The business plan included the following requirements and rubric as illustrated on table 5.

Table 5. Requirements and Rubric of the business plan

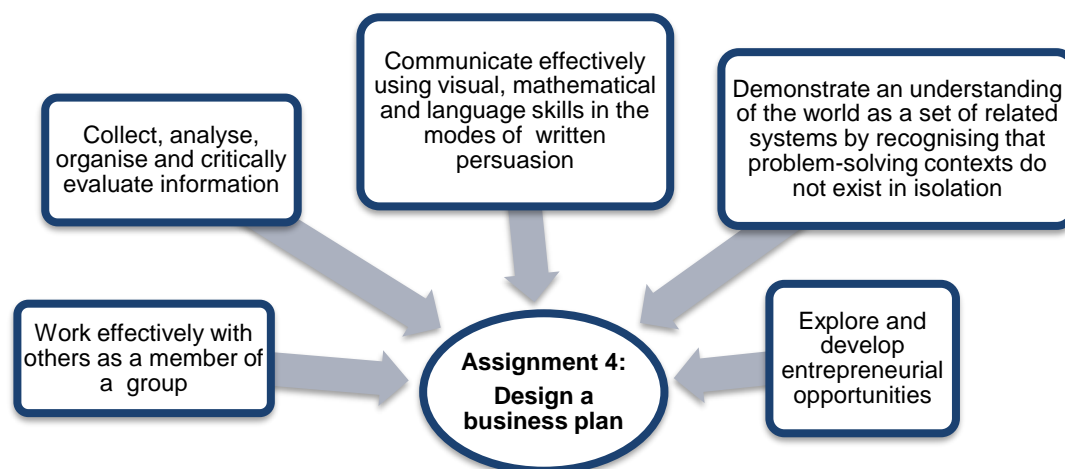
	Requirement	Requirements description	Detailed mark	Total mark
1	Cover page & Content page	<ul style="list-style-type: none"> • Name of the business • Entrepreneurs/s names • Date prepared • Address and telephone number • Must list contents and page numbers in numerical order 	1	1

2	Description of the business	<ul style="list-style-type: none"> • Nature of the business and its customers • SWOT analysis of the business • Why customers choose your products or services • Advertising methods, used to promote your products or services 	1 3 1,5 1,5	7
3	<u>Financial plan</u>	<ul style="list-style-type: none"> • Basic financial statements, for a three-month period. Following the normal accounting cycle starting with the: - • accounting equation, • general ledger, • trial balance, • Income statement • Balance sheet • An estimate of cash flows in form of a cash budget for a three-month period <p>Note these statements need to be prepared in Microsoft Excel and not in Microsoft Word.</p>	4 4 4 4 4 4	24
4	Operational plan	<ul style="list-style-type: none"> • Number of employees and Employees job descriptions/ duties and responsibilities • Training needs • Legal requirements for the form of ownership chosen • Control procedures for stock, cash and purchases 	3 1 2 2	8
5	Recommendations and Conclusion	<ul style="list-style-type: none"> • Analyse the above information and advise the business on how to improve their profitable. • General comments based on the business • Comments on financial statements produced 	5 5	10
TOTAL MARK				50

The first three assignments set the scene and built the students' knowledge of how small businesses operate, linking each individual assignment to adequately prepare students to tackle assignment 4. The core purpose of the Integrated Project and the exit level outcome of the program was to for students to act as management accountants by providing advice to the chosen small business, which was done in the form of a detailed business plan. The weighting of this assignment was 50%.

This assignment should enable the students to achieve the following Critical Cross Field Outcomes and exit level outcomes, as illustrated in figure 5.

Figure 5. Assignment 4 CCFO's assessed



Source: Adapted from (South African Qualifications Authority, 2006, p. 2)

Assignment 5: Presentation of Assignment 4

This presentation was designed to enable students to work effectively with others as a team and communicate effectively using visual skills and assisted in preparing them for the world of work. This filled the gap identified by (Griesel & Parker, 2009, p. 19), who stated that students lacked the ability to communicate effectively in the work place. The students can accurately perform calculations; however, they fail to understand the reasoning behind the calculations. The presentation compelled the group members to have a thorough understanding since their peers and lecturers could question them after the presentation.

Assignment 5 was presented using a Microsoft power point presentation. All group members were expected to take part in the presentation. Each group member presented for 5 minutes, with a total duration of 20 minutes per group. As well as 5 minutes at the end to address any questions.

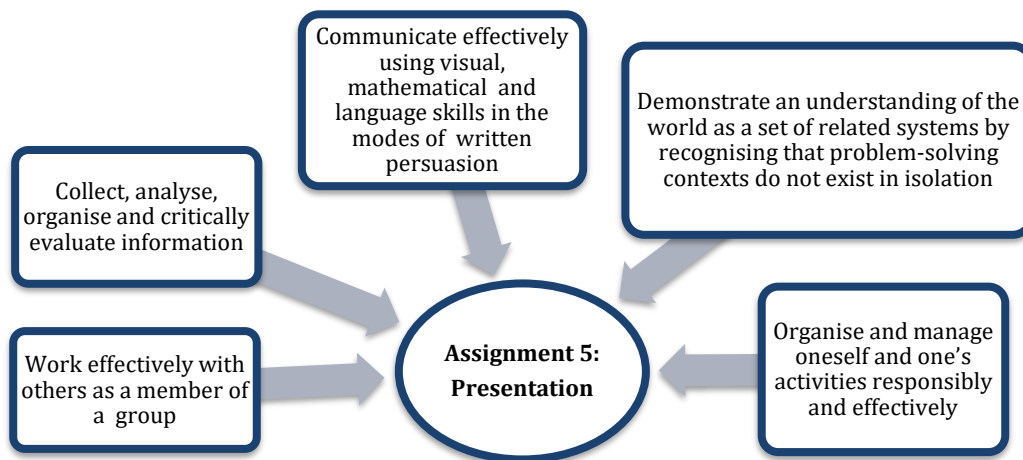
The following rubric was used to assess Assignment 5:

Table 6. Rubric for the presentation

NAME:	
PRESENTATION: (10)	
<ul style="list-style-type: none"> - Evidence of preparation (5) - Use of visual aids (5) 	
CLARITY/ AUDIBILITY (5)	
CONTENT: (20)	
1-5 Poor – not answered question	
6-10 Partly answered	
11-15 answered most of the assign.	
16-20 Exceptional work	
BODY LANGUAGE (5)	
TOTAL: 40	%
Comments:	

Assignment 5 was assessed separately in the module Accounting Professional Practice and carried 20% towards the year mark.

This assignment should enable the students to achieve the following Critical Cross Field Outcomes, as illustrated in figure 6.

Figure 6. Assignment 5 CCFO's assessed

Source: Adapted from (South African Qualifications Authority, 2006, p. 2)

Problems encountered in the design, development and assessment of the integrated project

The problems encountered in the design of the integrated project

The development of the project involved four members of staff including the subject librarian for the Faculty of Accounting and Informatics, a teaching and learning practitioner from the Centre for Excellence in Learning and Teaching. The development team met for two hours a week for nine months in order to successfully develop the integrated project. All the module lecturers were approached to participate in the development of the project. However, the lecturers were not willing to make the sacrifice for a nine-month period, due to their work commitments. If these subject specialists provided their expertise this could have added value in the development stage of the integrated project. According to Hesketh (2011, pp. 1,9), South African academics faces multiple challenges from both internal as well as from external stakeholders such as professional bodies as well as the DHET. These multiple challenges result in a strain on academics' workloads. Some of these challenges include the development of assessment techniques to equip students with the soft skills required in the work environment; increased research output and improved throughput and retention rates. The aforementioned problem was not unique to the South African context, as empirical evidence revealed in a study conducted at an Australian university that academics were not willing to participate in the development of an integrated project, due to work commitments and they requested an incentive before committing to any changes in their current workload (Vanderheide & Walkington, 2008, p. 354).

The problems encountered in the assessment of the integrated project

The integrated project was best suited to be assessed in the various modules that were incorporated into the integrated project, but the lecturers were not willing to change the assessment methods and the weighting for their respective modules. Therefore, the integrated project was only assessed in the module Accounting Professional Practice.

There was a challenge in assessing group work, as it was difficult to ascertain individual equal contributions made by the team members. This was overcome by requesting each student to submit an individual confidential contribution report based on each individual team members' contribution to each assignment. This contribution report provided insight on students input within the group.

Conclusion and recommendations

The integrated project has addressed the Critical Cross Field Outcomes and core practices embedded within the programme. This was done based on the modules covered in their first year of study. The project also provided a scaffold for interdisciplinary study because knowledge and information were acquired from various sources (Thomas, 2011, p. 29).

The scaffold for the interdisciplinary study was achieved by linking the first year modules as follows:

The knowledge obtained in their:

- Financial Accounting 1 module was used to draw up financial statements in Assignment 4;
- Communication 1 module was used throughout the Integrated Project in the form of report writing, negotiating a relationship with the small business, in the presentation and in working as a team;
- Entrepreneurial Skills module was used to build that fundamental knowledge of businesses. This was used in Assignment 4 to draft the business plan; and
- Business Information Systems 1 module provided students with Microsoft application knowledge that was used throughout the integrated project.

In 2014, the aforementioned integrated project was evaluated by Cloete (2015), using the WGCTA (Watson Glaser Critical Thinking Appraisal) to ascertain the impact of the Integrated project on the critical thinking skills of the first year ECP students. These first year students' who were underprepared for higher education, were challenged to engage with the programme exit level outcome which has given them greater insight into what could be expected of them when they enter the corporate world. Cloete (2015, p. 171) revealed that the integrated project conducted with these ECP students has enhanced the student's critical thinking skills. After engaging with this integrated project for the year, the critical thinking mean scores of these ECP students and two United States (US) norm groups were as follows:

Table 7. Comparison of critical thinking mean scores

	Experimental group		US high school grade 12 Norm group 1	US first year of 4-year college Norm group 2
	Pre-test	Post-test		
Mean scores	38.50	47.50	39.50	45.90

Source Adapted from Cloete (2015:170)

Table 7 above indicates that after students have engaged with this authentic integrated project, they achieved gains in their critical thinking skills. Cloete (2015, p. 187) concluded that the mean scores before the integrated project were aligned with the US high school grade 12 students, but were lower than the US first year of 4-year college students. However, Cloete (2015, p. 187) indicated that after the completion of the integrated project,

the mean scores of these underprepared students were higher than the US grade 12 students and were aligned to the US first year of 4 year colleges.

In line with the empirical evidence presented above, the integrated project has enhanced students' research, problem solving and creative thinking skills. This was also an effective way of assessing the programmes specific outcome's as well as the CCFO's which promote lifelong learning. The integrated project helped students integrate knowledge of the different learning areas covered in their first year. This also assisted students in seeing the link between theory and practice, by merging what they are taught in the classroom to what they are required to do in the real world. The integrated project also assisted students in breaking away from the traditional way of learning each discipline in isolation.

It would be expected that second and third-year lecturers follow on with this type of assessment to reinforce skills taught and build on the foundation that has been set with the first-year ECP students. Academics should also encourage a blend of student-centered and lifelong learning by integrating the assessment of modules taught in each academic year. Emphasis should be placed on achieving the CCFO's and exit level outcomes of specific programmes rather than doing what is convenient or follow on with the same assessments that have been done in the past. With the continuous engagement of an integrated project, students could be better equipped to adjust and excel in the work environment.

Limitations

The integrated project was limited to the ECP students as these students were classified as underprepared for higher education. The engagement of the integrated project was only done with the students registered for the National Diploma: Cost and Management Accounting, as the integrated project was designed to be discipline specific. Consequently, conclusions cannot be generalized to all ECP students at the UoT.

Although this Integrated Project assessed students at a UoT, it has relevance to all tertiary institutions who wish to ease the transition of students from university to the work environment.

Area's for further research:

After the development and assessment of the IP, areas for further research will include:

- Investigating academics perception of the IP;
- Investigating students' perception of the IP; and
- Developing and implementing an IP in the subsequent levels of study in the National Diploma: Cost and Management Accounting, as a follow up to the current IP conducted in the first year.

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