



Lecturers Changing Andragogy during Implementation of Integrated Information and Communication Technology (IICT) in Accounting Education

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Abstract

In 2011 the University of Johannesburg embarked on a revolutionary method of teaching finance subjects within the diploma courses. This method of teaching integrates traditional teaching methodologies with the use of commercial accounting software. The traditional setting of teaching financial accounting takes place within an environment of a classroom or auditorium where theoretical work is discussed and practical work is done working from examples given by the lecturer, normally completed on paper and more recently on a spread-sheet package. In the new integrated setting, half of the classes still take place in the traditional setting but the balance of the teaching takes place in a computer laboratory/class as practical sessions. The computers are pre-loaded with industry-standard financial accounting software and these classes take place in a practical hands-on manner. This integration takes place over the full diploma course of three years. As this process starts on its' third academic year, cognisance must be taken of the innovative and ground-breaking methodologies used, discovered and adapted by the lecturers. The lecturers have undergone an andragogical paradigm shift in their teaching over the period to date and it is this personal andragogical change that is being investigated and chronicled. This investigation into the change management and the lecturers changing andragogy during the implementation of IICT is a PhD study undertaken in the Faculty of Education at the University of Johannesburg. The purpose of this investigation and chronicle is to record the change management that has taken place, the lecturers' andragogy before and after the change, and to report on the methodologies developed to cope with the change. This study does not argue the pedagogy of teaching actually taking place or being better or worse, it discusses the andragogy of the lecturers and how their teaching methods have adapted to the new challenges. In this paper the focus will be on the changes that have come about and the change management strategies as perceived by the management and also the change management as experienced by the lecturers. The relevant information gathered via interviews and focus groups (qualitative) from key lecturers and management will be used to report on how the successful change management was achieved within an academic environment.

1. Introduction

In 2011 the University of Johannesburg embarked on a revolutionary method of teaching finance subjects within the diploma courses. Traditional teaching, whether it takes place in a school or in higher education, takes place in a pedagogical style. The traditional teacher as tabulated by Shelly Frei [1] shows the following characteristics: 1) Presents information lecture-style; 2) demonstrates skills which students then mimic; 3) show students how to solve problems; 4) lead students to the "right" answer; 5) Favours having students work on their own; and evaluates students almost exclusively with paper-and-pencil. By the mid-nineties, chalkboards had evolved into whiteboards, posters had evolved into overhead projectors and teaching had evolved to Outcome Based Education. But the five characteristics above still remained. By 2010 whiteboards had evolved into document readers, overhead projectors had evolved into personal computers or laptop computers running power-point slides. But with all these advances in technology the five characteristics above still held true. The technology just assisted the traditional teacher to make the classes more colourful and interesting. I call this Electronic Aided Instruction (EAI). Electronic Aided Instruction is merely a medium to assist the teacher in the traditional teaching methods.



1.1 Identification of the initial problem

In 2006 Nadia Rhodes [2] identified a gap in the teaching of financial accounting. The findings of this gap-identification were presented at the Faculty of Economic and Financial Sciences of the University of Johannesburg's first international 'Value Added' conference. This 'gap' was shown not to be the theoretical knowledge of the student, but the practical application of that knowledge when the student enters the work-force [3]. According to Wessels [4] [5] the world of work is changing and the world of teaching and learning needs to change with the world of work. As Information and Communication Technology (ICT) changes the world of work needs graduates with different skills. They need graduates that are well versed in ICT and that do not require re-training from manual systems to ICT Systems. Globalization and ICT have put new demands on Higher Education Institutions, with far reaching implications for their teaching and Research functions [6]. The students need "Authentic learning", which is learning that can be applied directly in a commercial setting.

Traditional teaching did not teach the student to apply their knowledge in the work environment [5]. Students entering the workforce had to be retrained by the companies to use the computerized systems in use by the companies [4]. This applied especially to the more practical-oriented students entering the workforce at the hands-on entry-level positions, the students who entered more in the 'bookkeeper, to 'assistant accountant' levels.

1.2 Integration of ICT

In the new integrated setting half of the financial accounting classes still take place in the traditional setting but the balance of the teaching takes place in a computer laboratory/class as practical sessions. With the introduction of Integrated Information and Communication Technologies (IICT) into the core syllabus of the diploma in accounting offered at the University of Johannesburg the opportunity is ripe for EAI to evolve to the challenge of integration. Integration is defined in Dictionary.com as "an act or instance of combining into an integral whole" [7].

The computers in the university computer laboratories are pre-loaded with industry-standard financial accounting software and the students then learn the application of the theory by creating their own mock company and applying their theoretical knowledge in a practical hands-on manner. This integration takes place over the full diploma course of three years with advances in company structure being applied as the student progresses. These advances start from a sole proprietor converting the company to small, medium companies to corporations and consolidations.

2. Aims and objectives

2.1 Change Management

Once the gap had been identified, certain conditions needed to be in place before the actual lecturing could take place. The main conditions were the acceptance and buy-in of the management of the department, the acceptance of change by the lecturing staff and the change in the curriculum. With the acceptance by the management, a new diploma was created which included the practical application of ICT in the core curriculum of the diploma. These changes have entailed managing the changes in acceptance of the lecturers toward the new diploma (change-management) as well as changes in the andragogy of the lecturers. (Andragogy is defined as the study of the teaching methods.) Collins and Halverston (pp30-30) quote the resistance to change that educators have had since the first innovation of moving from chalkboards to paper in 1815 up to new electronic technologies in the late 1980's [8].

As more and more tertiary education departments see the benefits of integrating ICT into an integral offering, that leads towards graduates that "learn to be" rather than "learn to know", the change management of the lecturers and their changing andragogy will become an important factor

2.2 Changing andragogy's

As the new diploma is phased in, so the changes have rolled out. The curriculum changes started in 2010 and the new diploma started in 2011. As this process of change starts on its' third academic year in 2013, cognisance must be taken of the innovative and ground-breaking methodologies used, discovered and adapted by the lecturers in moving from the traditional lecturing techniques to the IICT lecturing techniques. The lecturers have undergone an andragogical paradigm shift in their teaching over the period to date and it is this personal andragogical change that is being investigated and



chronicled. This investigation into the change management and the lecturers changing andragogy during the implementation of IICT is a PhD study undertaken in the Faculty of Education at the University of Johannesburg.

2.3 Purpose of this study

The purpose of this investigation and chronicle is to record the change management that has taken place, the lecturers' andragogy before and after the change, and to report on the methodologies developed to cope with the change. This study does not argue the pedagogy of teaching actually taking place or being better or worse, it discusses the andragogy of the lecturers and how their teaching methods have adapted to the new challenges. To achieve this, a three pronged approach is taken. Firstly, individual interviews will be held. These individual interviews will continue after the focus groups stage. Secondly a comparative curriculum study will be undertaken. Finally focus groups will be called.

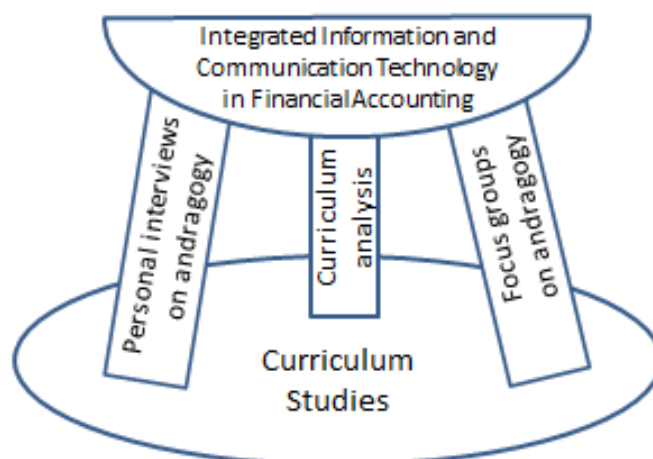


Fig.1 Validation by triangulation

2.4 Research Design

In choosing my heading I have taken cognizance of the on-going debate around the writings of Malcolm S Knowles in his two texts written in the 1970s and 80's entitled "Modern Practice of adult education: from Pedagogy to Andragogy" and "Modern Practice of adult education: Andragogy Versus Pedagogy" [9] [10] The various debates have led me to adopt Andragogy in my title as it is the teaching techniques used by the lecturers that I wish to explore rather than the fact that teaching has, or has not, taken place.

The aim of the study is to follow the journey of the lecturers as they grow andragogically (and pedagogically) within the framework of IICT and to understand their andragogical journey. The curriculum study will be a verification tool that the implementation has validity as compared to the replaced diploma.

3. Methodologies

3.1 Data collection methodologies

As the major integration has taken place in the accounting subject, the focus of the study will be on the accounting subject. Phase 1 and 2 are scheduled for prior to June 2013. The type of data to be collected in each phase and the method to be employed is as follows:

Phase 1: Qualitative data will be collected by means of semi-structured personal interviews with lecturers who have lectured for a minimum of one year on the first year accounting subject and/or on the second year accounting subject. Demographic information will be of lesser importance, but questions will be asked on their level of experience and the role they play in the decision-making and in contributing to the teaching and evaluating in subject in which they are key informants. The



interview will become less structured as the respondent are encouraged to explore the principles, problems and techniques developed.

Phase 2: The curriculum prior to 2011 will be qualitatively analysed in respect of subject coverage scope, depth, outcomes and assessment criteria. This will be compared with the curriculum as initiated in 2011. Validation will take place through the analysis of the first-year module review carried out on the accounting subject in 2012.

Phase 3: Qualitative data will be collected by means of semi-structured focus groups with four to five lecturers who have lectured for a minimum of one year on the first year accounting subject and/or on the second year accounting subject. The focus group will be un-structured as the respondent are encouraged to discuss and explore the principles, problems and techniques developed.

Phase 1: revisited Where and if necessary qualitative data will be collected by means of semi-structured personal interviews with lecturers who formed part of the interviews in phase 1 and focus groups in phase 3. The interview will focus on the responses and concepts identified in the phases 1 and 3.

3.2 Analysis of the data

A development of the grounded theory approach is termed by Gibbs [11] as the constructivist grounded theory approach for data analysis and interpretation, which does “not assume that data awaits discovery”, but rather the researcher analyses and interprets the data with an interpretive frame of reference focused and centred on the research question. The data will be analysed and interpreted around the aims and objectives of the study and the conceptual categories arise “through our interpretation of data rather than emanating from them” [12].

The transcripts of the interviews and focus groups will be analysed using the constant comparative analysis method.

4. Conclusion

In this paper the focus will be on the changes that have come about and the change management strategies as perceived by the management and also the change management as experienced by the lecturers. The relevant information gathered via interviews and focus groups (qualitative) from key lecturers and management will be used to report on how the successful change management was achieved within an academic environment. The fact of the change management will be validated through a curriculum study.

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