ALTERNATIVE ASSESSMENT FOR EFFECTIVE OPEN DISTANCE EDUCATION

by

ERNA OLIVER

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SUPERVISOR: PROF. G. VAN DEN BERG

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DECLARATION

Student number: **34397906**

I declare that **Alternative assessment for effective Open Distance Education** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

30 July 2015

SIGNATURE DATE

Erna Oliver

CERTIFICATE OF EDITING

56 Daphne Road
Maroelana
Pretoria 0081
Tel: 0027123466198
Cell: 0027724331090
Fax: 0027866265604

Sandra Duncan

SD
Editing services

Professional Editing services

30 September 2015

To whom it may concern:

This is to certify that I Sandra Duncan have language edited a Masters Dissertation written by **Prof Erna Oliver** titled,

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Yours sincerely

Sandra Duncan

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ERNA OLIVER

Supervisor: Prof. G. van den Berg

Department: Curriculum and Instructional Studies

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Abstract

The knowledge-driven, network society is founded upon technology. Educators need to implement technology effectively into the three main pillars of education, namely teaching, learning and assessment. This would assist students to become independent, confident and motivated life-long, self-directed learners that can use technology effectively in an educational environment. It would also ensure that graduates are able to become change agents, transferring their knowledge, skills and values to others in their communities. Alternative assessment methods that are technology driven could enable both educators and students to become more effective in a network society. This study advocates the use of alternative assessment methods by using technology driven assessment tools for possible replacement of traditional, paper based and "one size fits all" assessment methods within the subject field of Theology. Document analysis was used in a broad sense to evaluate technology-based multimedia documents. Ten documents were identified and evaluated as possible alternatives for traditional assessment methods. Inter-rater reliability ensured that the investigation provided constant estimates and results. The *SECTIONS* model used for this evaluation provided opportunities to include criteria important for higher education, the use of technology and subject relevant information to ensure that the evaluation was done with a specific purpose and scope in mind; to find technology-based tools that can substitute traditional assessment tools in order to enhance effective education to students.

Key terms:

Alternative assessment, assessment tools, technology, Open Distance Learning, Student-centered learning, blended learning, *SECTIONS* model, effective education, higher education.

CHAPTER 1 ORIENTATION AND BACKGROUND

1.1 INTRODUCTION

Doyle (2011, p. 45) states correctly that "colleges and universities work hard to define the skills and knowledge they want their graduates to have, but unfortunately they use traditional assessment tools that often don't measure whether the learning has occurred". Traditional assessment tools can be exchanged for technology-based alternative methods to match the demands and expectations of all stakeholders and to ensure that graduates are competent and capable to take on the challenges of life and work in an information-based network society. This study evaluates possible technology-based alternative assessment tools that could be used to enhance effective education in an **Open Distance Learning***[1](ODL) environment through the use of a **blended learning*** approach.

1.2 BACKGROUND TO THE STUDY AND LITERATURE REVIEW

Although the world we live in is constantly changing, it has often been said that higher education is reluctant to change and that the same methods and models of teaching, learning and assessment that were introduced when universities first developed, are still in use. Bates (2010, p. 22) quotes a vice-chancellor who said: "Universities are like graveyards. When you want to move them, you don't get a lot of help from the people inside." There are however, some important developments in the post-modern world that are of such importance to society that their influence cannot be ignored by the higher education sector. Higher education must take note of the changes brought about in society by the move from industrial-based economies to information-based economies on the one hand and by the influence of a so-called fourth revolution (see Section 2.2) or the creation of a network society[2] on the other hand.

During the last few centuries, education mainly provided a workforce for an industrialised society. Currently, however, the industrialised world is changing towards an information-based society (Pillay, 2010), causing major changes to the goal of education, a motion that already started more than half a century ago. "The principle goal of education is to create men who are capable of doing new things, not simply of repeating what other generations

[1] Words and terms printed in bold and marked with an asterisk are explained under the heading: Clarification of terms and concepts (see Section 1.4).

[2] The term "network society" was coined in 1981 by Stein Braten and it relates to social, political, economic and cultural changes caused or influenced by the spread of networked, digital information and communications technologies. Issues such as religion, culture, politics and social status all influence the network society (Castells, 2010).

have done…The second goal of education is to form minds which can be critical, can verify, and not accept everything they are offered…"[3] (Piaget, 1964, p. 496). A number of African countries, including South Africa, are only taking their first steps on the road towards an information-based society and moving towards "multimedia complexities" (Constantina, Raffa, Alvares, & Moron, 2012, p. 123) that are replacing the linearity of the written word in the education industry. The changes in the aim of education, referred to above, should therefore be emphasised at all levels of education in South Africa to bring about positive and effective change. Higher education could act as a supporting vehicle for the transformation process, leading from the front.

Numerous universities are currently striving towards improving the quality of teaching and learning in order to provide **effective education***. The focus of change and adaptation in higher education is both on the "what" (content) and on the "how" (means through which) teaching and learning are done. The "what" (content) has rapidly and seemingly uncontrollably expanded, opening up and facilitating an ever-growing number of messages (content) and possible interpretations for students to access and evaluate, or to use for creating new content. The method (how) of transfer of knowledge and skills is affected by the development of the network society (see also Section 2.2), through the implementation of technology. These methods constantly need adjustment to stay relevant and applicable for the world we live in. However, the solution to this challenge is not to be found in a single technological paradigm shift, but in the adaptation of and commitment to a process of continuous change (Ice, 2010) in sync with the developments in technology and society. Technology literacy and fluency are requirements to succeed in education and a graduation requirement; people need these skills to be successful in a global, network world (Oblinger, 2000).

The University of South Africa (Unisa) is an established ODL institute that uses a blended approach (Unisa, 2013a) to provide higher education, mainly to the people of Africa. The mission of the university is formulated as "Towards *the* African University in the service of Humanity" (Unisa, 2014, p. 8). In order to achieve this, Louw (2010, p. 46) emphasises that there should be a "renewed focus on indigenous knowledge as the rebirth of the African voice and identity in higher education". Bringing these aspects of ODL, blended learning and the challenges regarding an African environment together, presents Unisa with a challenging

[3] The original text by Jean Piaget contained the phrase "principle goal". The phrase probably should read "principal goal" and the term "men" should be read as inclusive of women. (1964 November, The Arithmetic Teacher, Volume 11, Number 7, Piaget rediscovered by Eleanor Duckworth, Start Page 496, Quote Page 499, Published by National Council of Teachers of Mathematics (JSTOR). Retrieved from http://quoteinvestigator.com/2014/06/04/education/)

task to provide **effective education*** to all students. The three corner pillars of the triangle of effective education will be discussed next to explain why assessment is an equal and important part of effective education and therefore the focus of this investigation.

1.2.1 The triangle of effective education

The concept of effective education brings the three most important aspects of education together. The triangle of effective education is constructed by teaching and learning that forms the bottom line with assessment linking these two aspects to the pinnacle to create a triangle that serves as a firm foundational framework for educators[4]. Although learning is often seen as the main focus point of education, it is assessment that determines whether learning actually took place and if the student is able to implement the learning through cognitive and transferable skills (North Central Regional Educational Laboratory, 2003, 2004). From a student point of view it is assumed that assessment determines the actual curriculum because most students tend to learn only what they think or know will be assessed in summative assessment tasks (Becker, Geer, & Hughes, 1968), but this assumption is seen as an oversimplified interpretation of a much more complex issue (Joughin, 2010). The work of educators in their teaching, and more specifically in their assessment should guide, promote and focus the learning process of students towards success, underpinning the "fundamental aspects of the interactions between assessment and learning" (Joughin, 2010, p. 335). Although each of the three aspects of education deserves continuous academic research to ensure sustainable high level standards of education, this study will focus mainly on the aspect of assessment.

Unisa, as an ODL institution, focuses on student-centeredness and blended learning strategies (Unisa, 2013a). Therefore, the Unisa triangle of effective education (teaching, learning and assessment) can be expanded to student-centered teaching, blended learning and alternative assessment (see Figure 1.1).

[4] An educator is a person who provides instruction or education. For the purpose of this study, lecturers involved with Open Distance Learning at the University of South Africa or lecturers in higher education in general are included in this term.

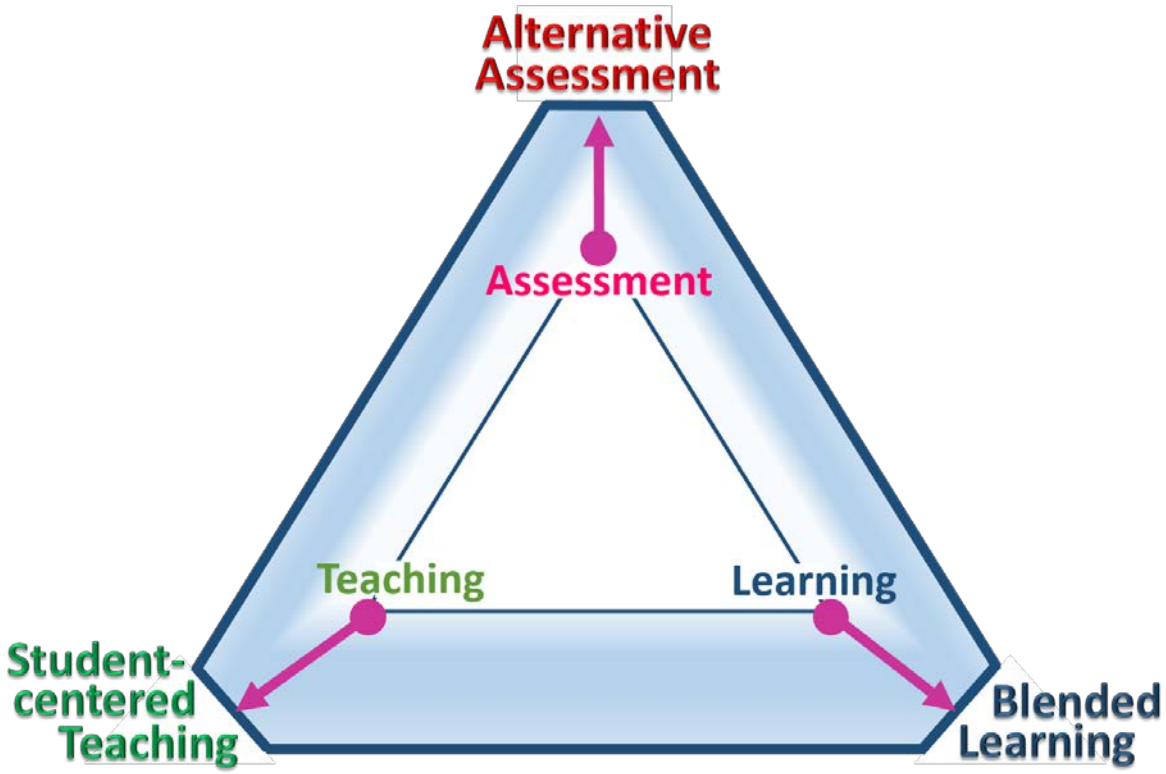

Figure 1.1: Effective education expanded for the Unisa environment

Source: Own design

In order to understand this expanded version of the effective education triangle, it is necessary to understand what is meant with the term "alternative assessment". The link of alternative assessment with blended learning and student-centeredness will also be explained after the clarifying notes about alternative assessment.

1.2.1.1 Alternative assessment

Assessment, according to Unisa policy (Unisa, 2013c), is the systematic evaluation of students' abilities to demonstrate their achievement of the learning objectives intended in the curriculum. Alternative assessment implies that students have choices regarding their ability to demonstrate their achievement of the learning objectives intended in the curriculum. It means that students have a choice regarding the form and content they provide in order to answer questions or perform tasks (North Central Regional Educational Laboratory, 2003, 2004).

Alternative assessment moves away from a timed and measurement model which historically formed the main components of how universities assessed students (Siemens, Gašević, Dawson, 2015), towards student empowerment and the development of life-long learning opportunities. It focuses on tracking an individual student's growth and development

over a longer period of time rather than with the once-off timed, venue-based examination session on the one hand and on the other hand it no longer compares students, classes and year groups with each other (Huerta-Marias, 1995), but rather the student's own progress, growth and knowledge, skills and competency development over a period of time.

This means that alternative assessment is an umbrella term that can include various and wide ranging options, enabling students to go beyond curriculum bound knowledge retention and skills acquirements to reveal what they have learned and are able to do with the knowledge, emphasising their abilities and strengths. In this process even failure can be seen as a valuable component of the learning process and not as a final outcome which is normally the case in a limited time measurement model of assessment.

Although a pilot project started in 2014 to move to alternative assessment methods, the current assessment system at Unisa allows for a limited scope of assessment methods, such as Multiple Choice Questions (MCQ), essay type assignments and portfolios, as well as venue-based and non-venue-based examinations. This system puts pressure on both educators and students. Students often receive study material late due to postal strikes and other uncontrollable circumstances. The educators are under pressure to mark and provide feedback on late assignments or draft portfolios that should reach the students in time for examination preparation or before final submission dates for portfolios. This system is also causing logistical problems for some students to ensure that they can write examinations at designated venues on specific dates and times. The question arises whether this assessment system could not be changed into a more efficient and productive system where assessment, as a vehicle for educational improvement (Astin, et al., 1996), forms a continuous and important part of the educational process.

In order to keep up with the demands on educational development by the network society, traditional assessment should be replaced with multi-dimensional, flexible and negotiated assessment (Blaschke, 2012), focused not only on knowledge retention, but also exposing students to opportunities to practise and apply the knowledge and skills gained, in line with the set learning outcomes of the module[5] or programme. Higher education does not serve its

[5] "A module is a coherent unit of teaching and learning activity expressed as an appropriate number of hours of study." Undergraduate modules at Unisa are worth 12 credits. "A programme is a purposeful and structured set of learning experiences that leads to a qualification." A qualification is the formal recognition and certification of learning achievement awarded by an accredited institution" (Unisa 2013b, p. 4) such as the B.Th. degree programme of which the module *World Christianity and Ecumenism* (TIC2604) that is used as the example module for this study, forms part at second year level. In the TIC2604 work sheet for students (Appendix A), the term "module" is generally not used and the term "course" serves as synonym.

stakeholders by using timed and measurement-driven, linear assessment methods when the world is moving towards a digital, network, information-based society. Alternative assessment could assist educators to ensure that modules and programmes are developed with the focus on the student as the most important stakeholder and the student's future beyond formal higher education.

1.2.1.2 Student-centeredness

Students are the main focus of the educational process. Strategic learners need higher education that is professionally compiled, pedagogically sound, interactive and engaging (Folley, 2010). Student-centeredness (Unisa, 2012) recognises students' worldviews and their lived experiences as well as their prior learning in the development of curricula that will allow students to reach their learning objectives and aspirations. The social nature of education and the role that interaction, collaboration and discourse play in constructing knowledge are also increasingly recognised. The educational strategies employed to focus on the students should therefore enable successful learning through rich environments for active learning, establish links between students' existing knowledge and contexts and new knowledge and skills to be constructed, and encourage the development of independent, higher level cognitive skills (Unisa, 2008). Students should also be empowered "to become all they can be" – the ultimate mission of a university (Cross, 2010, p. 48).

Open Distance Learning caters for a diverse set of students and the aspects of "distance" and "diversity" should be handled from the students' perspective (O'Rourk, 2009) to ensure that their interests are given priority. Students should be able to take progressive responsibility for their learning and progress in order to develop into self-directed life-long learners. The learning process of constructing meaning through personal responsibility and choices (Garrison & Vaughan, 2008) gives students the freedom to explore ideas and to raise questions (Jarvis, 2009) and objections, or to construct meaning for themselves. Students have to acquire the attitudes and skills to become critical thinkers and to continue their learning beyond the narrow scope and time limit of a formal educational experience (Garrison & Vaughan, 2008). One aspect that is very important for both formal education and success in the world outside the university is the development of competencies.

1.2.1.2.1 Competency development

Competencies are important issues in higher education, because "degrees do not communicate much about a candidate's potential and fit" (Weise, 2014, p.1). Competency is the proven ability of acquiring knowledge and skills while capacity depicts the student's

confidence in his/her competency and as a result the ability to take appropriate and effective action in familiar, unfamiliar and changing settings (Cairns, 2000; Blaschke, 2012). Competencies include, but are not limited to, student autonomy, self-direction, time management, reflection, critical and creative thinking skills, technology-based skills, interaction skills and a positive identity and social presence (Parkes & Reading, 2013). Competencies are measurable and can be developed and improved through the use of a number of learning activities, including skilful assessment practices that doubles as learning opportunities.

One of the competencies that alternative assessment caters for is the increased use of technology. Universities cannot afford to produce graduates "who are not ready for a world in which the flows and qualities of information and data are fast, contested and fluid" (Prinsloo, 2011). Therefore, paradigm shifts are taking place within the education system to incorporate technology. The current shift is towards the use of mobile technology to aid and support education (Wheeler, 2014). This move is supported by the fact that a large number of people have access to mobile technology. The majority of the world population (87%) has mobile phones while only 16% have access to computers and laptops (Cochrane, Antonczak, Gordon, Sissons, & Withell, 2012). South Africa has 37,2 million adults, of which 36 million or 97% has access to mobile phones (AMPS, 2014). Internet access from home increased from 5% in 2006 to 31% in 2013 (AMPS, 2014), which is still low, partly due to unreliability and the high costs of this service. If higher education should move to mobile learning, the focus of research will have to be carried out on the way students are using mobile technology and social media will have to be categorised and evaluated for incorporation into teaching, learning and assessment practices (Cochrane, et al., 2012). However, this investigation will not focus directly on this issue, although the evaluation used in this study will enquire about the usability of the tools on mobile devices.

Technology fuels the network society, but the technology used should be structured to support learning and competency development and it should be well related to the stated learning objectives and assessment criteria of the module or programme (Bernath, Brahm, Fuler, & Seufert, 2008). The incorporation of technology in the curricula and education policies should be driven by pedagogical, research and community directed needs and not by technological determinism (Pariser, 2011). It should also be kept in mind that the use of technology as an educational tool does not automatically enhance teaching, learning and assessment.

Competencies associated with the use of technology support the development of life-long education, which is becoming increasingly important (Steffens, 2008) for both the students and for the communities in which they work and live. Students must be able to transfer and implement their knowledge and skills for the benefit of the communities they live in.

1.2.1.2.2 Community directed education

An important aim of higher education is to aid and support students to become responsible, active citizens, who have a sound moral vision (Oyler, 2012) and are actively involved in community upliftment projects and actions (Oliver, 2013). This demands academic and respectful interaction between the students and members of the community, in which creative assessment can play a huge preparatory role. Students can develop skills and competencies, such as learning to listen and to explain and defend positions and ideas (Garrison & Vaughan, 2008) through this interaction while the community could also benefit.

This research focuses on identifying alternative assessment methods and tools usable in this complex environment that could enhance self-directed life-long learning and promotes the formation of **change agents*** in the African context of limited access to and high costs of technology.

Alternative assessment methods also enable educators to make full use of the opportunities offered by the blended learning approach of the university.

1.2.1.3 Blended learning

Blended learning offers "disciplined inquiry through reflective and collaborative activities, while providing unlimited access to information" (Garrison & Vaughan, 2008, p. 86). Masie (2006, p. 22) states correctly that all learning is actually blended learning. He defines blended learning as "the use of two or more styles of content or context delivery or discovery". Allan (2007) notes some advantages of developing blended learning programmes: It makes learning more accessible, engaging and relevant while providing more flexible learning opportunities, reducing the amount of time spent on face-to-face learning activities by shifting the balance to other blended learning activities. Blended learning integrates practitioner-based experiences with classroom-based learning that enables the development of programmes that are relatively cheap to repeat or use with larger groups of students. And finally, blended learning also exploits ICT and training facilities, can demonstrate the use of leading-edge technologies and explore new or different approaches to teaching, learning and assessment.

The blend consists of four changeable components (see Figure 1.2). By increasing or decreasing the values of each component, the learning design for each part of the module can be constructed to fit the learning outcomes of the module as well as the needs of all stakeholders. Each medium should be "used for what it does best" (Race, 1999, p. 15). The components are (Littlejohn & Pegler, 2007, p. 75-76):

- The space blend: technology-mediated communication between students and institutions, students and educators and between students.
- The time blend: real time (synchronously) and delayed time (asynchronously) interaction.
- The media blend: different types of tools, resources and material (**multimedia***).
- The activity blend: influenced by the educator's orchestration of a number of different learning activities (see Section 3.2.2).

In *How do people learn* (Reynolds, et al., 2002), four distinct perspectives on learning is outlined. Each one of these require different compositions of learning blends and their overlap must be considered in the design and delivery of blended learning activities and outcomes (Vaughan, 2010). Blended learning could enable educators to provide students with choices regarding learning styles, content, and the ways in which their learning can be assessed. The four interrelated components of blended learning can be presented as follows:

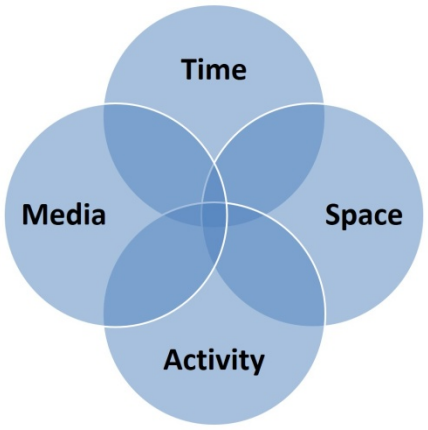

Figure 1.2: Components of blended learning
Source: Own design

At Unisa this blend is uniquely structured (see Figure 1.3). Students are free to study anywhere (space), with no or very limited face-to-face contact with educators. Unisa students also use multimedia (ranging from electronic equipment to printed textbooks). Therefore, the two aspects of space and media are normally bigger than time and activity in Open Distance education. The inner circles are made up by the activity blend (set by the

educator) and the time blend which is, in the ODL environment, normally limited. Figure 1.3 is an example of how this unique composition of blended learning could look like for a Unisa student.

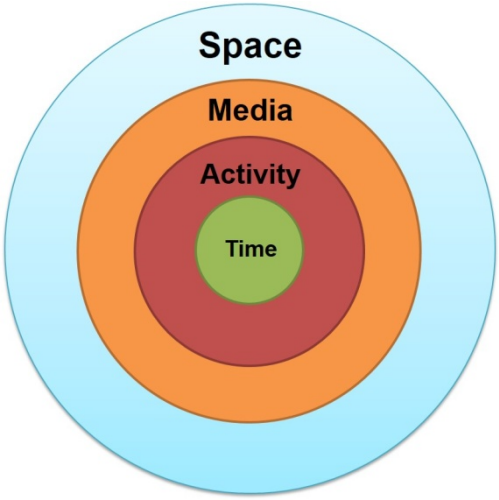

Figure 1.3: An example of the blended learning components in ODL
Source: Own design

It can be concluded that there is a need to revisit educational practices at Unisa in order to provide effective education for the unique circumstances which students find themselves in. This challenge is amplified by the African context where student populations will most likely remain characterised by diversity and high degrees of inequality. Technology opens up numerous possibilities to aid the move of education forward in an information-based network society and this opportunity should be grasped by educators to provide effective education through the linking of the three key concepts of student-centered teaching, blended learning and alternative assessment. Effective assessment should enable students to become independent, build their confidence, increase their motivation levels and improve their success rates in academic challenges (Brindley, Walti, & Blaschke, 2009). It should also aid in eventually turning graduates into life-long learners capable of acting as positive change agents in their respective communities. One of the challenges towards making this into reality is to identify and evaluate appropriate alternative assessment methods to replace the linear, written and limited traditional assessment methods that focus mostly on knowledge retention and grading.

Within higher education there is also policy documentation that guides and restricts educators regarding the way in which they construct and develop modules and structure assessment. This study is conducted at the University of South Africa and therefore the

policy documentation on assessment that is used to regulate curriculum development at Unisa will be discussed next.

1.2.2 POLICY DOCUMENTATION

Unisa is one of the oldest distance universities in the world[6]. Keegan (1980) refers to the influence of the educational organisation on the delivery of distance education, because each organisation has its own policies, structures, stakeholders and unique business model which must be taken into account by the researcher. Four documents listed under the tuition policies of Unisa were identified as important for the current investigation:

- The *Curriculum Policy* was revised and approved by the Council in November 2012
- The *Framework for the implementation of a team approach to curriculum and learning development* was approved by the Council in 2013
- The revised *Tuition Policy* was approved by the Council in 2013
- The *Assessment Policy* was also approved by the Council in 2013.

Each of these documents will be discussed in short to provide background information on assessment practices and developments in this regard at Unisa.

1.2.2.1 Curriculum policy

The *Curriculum Policy* (Unisa, 2012), is the result of a culmination of several processes aiming to transform Unisa into "*the* African university in service of humanity" through the core business of the university's curricula. Inputs from a workshop, a literature review and a comparative study of curriculum policies in the broader South African context influenced the formulation of the final document.

The document contains a comprehensive list of definitions of concepts as well as detailed descriptions of the six broad principles that serve as the foundation for curriculum development. These principles are:

- Responsiveness to the needs and expectations of all stakeholders, including broader society
- Student-centeredness
- Accountability by the academic departments for academic integrity, teaching and learning

[6] Unisa was established in 1873 as the University of the Cape of Good Hope which was an examining body for the Universities of Oxford and Cambridge. In 1916 the university was relocated to Pretoria and renamed the University of South Africa (Boucher, 1973).

- Curriculum structure in alignment with the Higher Education Qualification Framework (HEQF) standards
- Quality assurance in accordance with the Higher Education Quality Committee (HEQC) stipulations
- Ensuring a positive transformative impact through effective teaching and learning.

These principles apply to all academic programmes offered by the university and the aim is to provide guidelines that would aid the achievement of the set mission and vision of the university. The focus of the policy is on graduateness[7]. Graduates should be "independent, resilient, responsible and caring citizens who are able to fulfil and serve in multiple roles in their … communities" (Unisa, 2012, p. 10). Furthermore, they must have a critical understanding of their "location on the African continent" (Unisa, 2012, p. 10) and be aware of their own learning and development needs. These aspects should play a major role in the curriculum design, including assessment strategies. The policy also highlights active learning and the effective use of technologies (Unisa, 2012). Finally, to ensure that all of these can be achieved, the policy prescribes a re-evaluation of academics' key priorities and allocation of time (Unisa, 2012).

1.2.2.2 Tuition policy

The *Tuition Policy* (Unisa, 2013a) explains the fundamental principles that serve as the foundation for the functioning of the university as a comprehensive, open and distance higher education institution. Eleven principles are listed and then expanded with notes on how these principles are implemented in practice and all of these promote sound assessment strategies in the teaching and learning environment: Students need to contribute to their communities and focus on life-long, active learning (Unisa, 2013a). Teaching should focus on student support, a team approach should be used to develop curricula, and information communication technologies (ICT) must aid to improve teaching methods to ensure that internationally-accepted academic standards are met (Unisa, 2013a).

[7] Graduateness is the set of learning outcomes and attributes which students should have achieved after completing their qualifications. These include discipline-specific knowledge, skills and competencies as well as broader attributes which equip graduates to be innovative and effective in the workplace and active and informed citizens who are able to have a positive impact in their communities (Unisa, 2012).

1.2.2.3 Framework for the implementation of a team approach to curriculum and learning development

The third policy document containing guidelines on assessment is the *Framework for the implementation of a team approach to curriculum and learning development* (Unisa, 2013b). Maybe due to the rigorous enforcement by the university management to comply with the guidelines set in this document, most educators at Unisa who are currently involved in curriculum development, are aware of the contents and importance of compliance with this policy. The document stipulates the steps that must be taken in order to obtain a certificate of compliance which is needed for capturing a programme or module on the Academic Information Management System (AIMS). It is a comprehensive and helpful document and in its current form, a valuable guiding outline that provides practical information and instructions on the correct procedures and actions needed to create high quality, self-directed ODL material. The purpose of this document is to provide a bridge between the above-mentioned policies and ODL practices. It provides a scheme for actions required to ensure successful curriculum and learning development.

1.2.2.4 Assessment policy

The *Assessment Policy* aims to ensure that assessment is aligned with the national higher education legislative and that it is an integrated process within the learning experience. The policy states that assessment "must measure predetermined outcomes using appropriate assessment methods" (Unisa, 2013c, p. 3), but does not prescribe assessment methods. It does, however, indicate that the assessment should focus on the real-life use of the knowledge and skills taught (Unisa, 2013c). Traditionally, assessment at Unisa consisted of two assignments - normally Multi Choice Questions for the modules with large student numbers and essay type questions for modules with small student numbers - as formative assessment and one venue based summative assessment. These assessment practices worked well in the era of distance education before technology opened new opportunities for continuous assessment methods. Currently, Unisa is exploring alternative assessment methods in order to stay relevant in the technology-driven world. A small pilot project was launched in 2014 that include portfolios, take-home-exams, timed online exams, webinars, peer evaluations and continuous assessment tasks (Naicker, 2015).

These policy documents are all in agreement with each other and provide support on the major issues that would inform and support a move to incorporate alternative assessment measures at Unisa. The focus now moves to assessment and alternative assessment measures.

1.2.3 ASSESSMENT AND ALTERNATIVE ASSESSMENT

1.2.3.1 What is assessment?

Assessment is one of the three pillars upon which effective education is built. These pillars are teaching, learning and assessment (Huerta-Macias, 1995). Although learning is the main focus of education, it is assessment that determines what is learned and how it is learned and whether the student is able to implement the learning through higher level cognitive skills. Assessment is a goal-orientated evaluation process that should, if carried out in close relationship with clear, focused and implementable learning outcomes, be able to improve and advance learning (Assessment Reform Group, 2002). Traditionally, assessment is divided into summative and formative assessment. Summative assessment is the assessment *of* learning while formative assessment includes assessment *as* learning (Stiggins, 2002) and assessment *for* learning.

The way in which assessment activities are designed and integrated into learning activities can have a significant impact on students' motivation, their approach to and experience of learning (Cooper, Orrell, & Bowden, 2010). Challenging, multifaceted and focused assessment tasks not only represent a rich and fertile context in which to assess the range of knowledge, skills and capabilities needed to be successful in the module, they also direct students to develop appreciation for the nature and scope of challenges that they may face beyond graduation and in their chosen careers (Boud, 2007). Students need to understand the purpose of the assessment in order for it to be effective (Blumberg, 2014).

1.2.3.2 The purpose of and principles underlying assessment

Assessment is not an end in itself but a vehicle for educational improvement (Astin, et al., 1996; Braun, Kanjee, Bettinger, & Kremer, 2006). These scholars state that the purpose of assessment is not to test knowledge retention, but to evaluate the students' ability to demonstrate what they can do with the knowledge gained. Assessment should include evaluation of the development and change of values, attitudes and behaviour that influence both academic success and life beyond and outside the formal educational environment. In order to do this, assessment should consist of a diverse array of methods in order to reveal change, growth and increasing degrees of integration over time (Assessment Reform Group, 2002).

Closely linked with the purpose of assessment are the principles that underlie the actual construction and choice of assessment tasks. It seems as if each institution has its own set

of assessment principles according to which assessment tasks are set. From the literature on this topic (Banta, Jones, & Black, 2009; McMillan, 2014; Sadler, 1998; Race, 1999; Boud, 2007; Wilson, 2013; Nicol, 2010), the long list of different principles can be summarised into a few important principles that should inform assessment practices. The first principle acknowledges the fact that it is assessment that shapes learning. Second it must always be kept in mind that all assessment must be in line with the stated learning outcomes of the module. Third, assessment should never be about grades only. It must focus on quality feedback and feed-forward practices in order to aid learning. Last, it is necessary to communicate effectively with the students regarding assessment tasks and to ensure that they understand what is required from them. These four principles will be discussed briefly.

1.2.3.2.1 Assessment shapes learning

The content of an assessment task informs students on where to focus and what to prioritise. The structure of the assessment task provides them with an indication of the knowledge, skills and/or capabilities that they are expected to develop and demonstrate (Sadler, 1998). Therefore, if there is a need to change the way students learn (e.g. from knowledge retention to capacity building), it should be achieved by changing assessment tasks and methods (Brown, Bull, & Pendlebury, 1997).

1.2.3.2.2 Effective assessment is aligned with learning outcomes

Learning outcomes provide direct indicators of the intended level and depth of knowledge, skills and capabilities required from students to successfully complete the module. It is therefore important that learning outcomes must be specific, measurable, achievable, realistic, time specific and corresponding with the standards and benchmarks of the programme (Race, 1999). Accomplished in this way, learning outcomes provide a map to help students to identify their own goals and ways to achieve these targets. All learning outcomes must be assessed in full.

1.2.3.2.3 Assessment includes quality feedback and feed-forward practices

Meaningful and timely feedback and feed-forward are important aspects of effective assessment. The feedback that students receive in relation to performance on assessment tasks, can provide them with information on how well they have learned, and how well they are able to demonstrate their achievement of module level learning objectives (Boud, 2007). Therefore feedback should encourage and empower, it should not merely inform (Wilson, 2013). Special care should be taken to attend to the needs of students who get things wrong

(Race, 1999) in order to turn their efforts into positive learning opportunities. Feed-forward tells the students what they need to do next to reach the set goals and outcomes.

1.2.3.2.4 Assessment tasks must be communicated effectively

Nicol (2010) provides a summary of key words that could easily be expanded to ten principles for effective assessment, but in essence it requires educators to ensure that the tasks set as assessments should be clearly communicated to the students. The tasks and assignments must be written in simple, understandable language and should also be contextualised in order for the students to understand clearly what is expected of them. Students should be able to recognise from the way the assessment is presented to them that they would benefit from actually performing the task.

1.2.3.3 The ideal functioning of assessment

Alternative assessment is not a new concept, but the ways in which it can be implemented are constantly evolving. Alternative assessment should move away from a measurement model towards one of student empowerment and the development of life-long learning (Wilson, 2013). It must focus on tracking the individual student's growth and development over a period of time rather than comparing students and classes or year groups with one another (Huerta-Macias, 1995). The assessment tasks should require creative use of knowledge, skills and competencies, rather than knowledge hoarding. This form of assessment encourages students to produce quality products and services on the one hand and focus on students' strengths rather than on their weaknesses on the other hand (Huerta-Macias, 1995).

Alternative assessment should stimulate the development of higher level cognitive skills. The tasks should be worthwhile and linked to the module focus, and aligned with the purpose and intention (Biggs, 2003), of the module. The assessment tasks should measure learning outcomes through a variety of assessment measures, provide for different learning styles, and take into account the proficiencies and educational background as well as potential grade levels of all students (Huerta-Macias, 1995). It should therefore provide opportunities for students to demonstrate their understanding of the content (Wilson, 2013).

The ultimate goal of alternative assessment is to change students into self-directed, life-long learners who will act as positive change agents in their respective communities. This vision is documented by a number of scholars, including Fink (2013, p. 11) who quotes Masequesmay: "My dream is for my students to be able to think critically, to incorporate this

thinking in their daily lives and to share that knowledge and compassion with others in order to work towards a better world for all". Fink (2013) expands on this with a personal wish list for effective assessment. He wants assessment to influence students long after they have left the formal education system in order to

- develop a deep curiosity and continue to grow as critical thinkers
- develop key skills in life, such as effective communication skills
- experience the joy and fun of learning and engage in life-long learning
- take pride in what they have done and can accomplish
- mentor others and get mentored
- stay positive despite setbacks and challenges of life and work
- see the connections between themselves and their beliefs, values and actions and those of others
- think about problems and issues in integrated ways and from multiple perspectives
- see the need for change in the world and be positive change agents and creative problem solvers.

Not all of these ambitions are attainable within one module or one semester and with each new group of students. The ultimate goal is to strive for these goals to realise in the lives of all students on the long run and therefore educators should do their utmost to provide opportunities to make these ambitions realities. Before formulating the research questions for this project, a few short words provide background to the module that informs the study.

1.2.4 THE MODULE: WORLD CHRISTIANITY AND ECUMENISM

The module, *World Christianity and Ecumenism* (TIC2604) forms part of the Bachelor of Theology (B.Th.) degree programme. The cluster of Theology at Unisa consists of three departments housing a total of seven disciplines. The Theology cluster forms part of the College of Human Sciences at Unisa.

The module is designed to deepen and broaden the students' understanding of trends in World Christianity and the challenges surrounding the practice of ecumenism. Outcomes include a critical review of the current state of World Christianity and the ability to explain the complex notion of ecumenism. Students are required to identify problem areas related to these two main topics in their own communities and to use the principles of ecumenism to propose possible solutions and positive change. Students are encouraged to expand and explore self-determined learning as a step towards becoming life-long learners and positive change agents in their communities (cf. Mayer-Mihalski & DeLuca, 2009).

In 2014 *World Christianity and Ecumenism* was one of eight selected modules from the College of Human Sciences that formed part of a pilot study on alternative assessment at Unisa. The alternative assessment mode chosen for this module was technology-driven continuous assessment. The implication was that assessment for the module changed from the traditional two written essay type assignments and one timed, venue-based essay type examination to a series of technology-based assessments, linked to smaller pieces of the work, executed on a weekly basis throughout the course of the semester. This provided opportunities to link the assessment tasks much more effectively with specific learning activities and the intended outcomes of the module. It also provided the opportunity to implement technology-based options and different choices that students could opt for if they preferred to get feedback and results faster than was possible with the traditional system.

This research focus on identifying and testing assessment tools that are technology based and can be used as alternative assessment tools for this module. This problem will be explained next.

1.3 PROBLEM FORMULATION

Effective education can be seen as a creative combination of teaching, learning and assessment that results in positive learning outcomes and competent graduates. If one looks at book titles and the emphasis on terminology (teaching and learning – excluding assessment) (Lever-Duffy, 2015; Layne & Lake, 2015; Simonson, 2015) in education in general, it seems as if the focus of research to enhance the quality of education is more on teaching and learning and less on assessment and the positive impact assessment could have on the overall improvement of education. It seems as if assessment is often seen as a subordinate part of teaching (Godbout & Richard, 2000) and not equal to teaching and learning. There is a need to focus on research on assessment at Unisa in order for it to take its rightful place in the suggested triangle of effective education.

The primary purpose of assessment is to help students to learn better (Fink, 2013). Therefore special attention should be given to designing assessment measures that are fit for this purpose. The example module used for this investigation (see Section 1.2.4 and Appendix A) was developed using backward design[8] (see Figure 1.4) which emphasises the prominent role of assessment practices. This method of module design ensures that

[8] Although the term "backward design" was only introduced in 1998 by Wiggins and McTighe, the idea was originally developed by Tyler in 1949. This version of curriculum design starts with the rationale and works towards the purpose, outcomes, summative and formative assessment, in-course activities and last adding content (Mays, 2013).

teaching, learning and assessment reflect and support each other (Fink, 2013) and that assessment is not seen as an add-on to teaching or reduced to a student-grading system. Applying this to module design, can be summarised with the following graph:

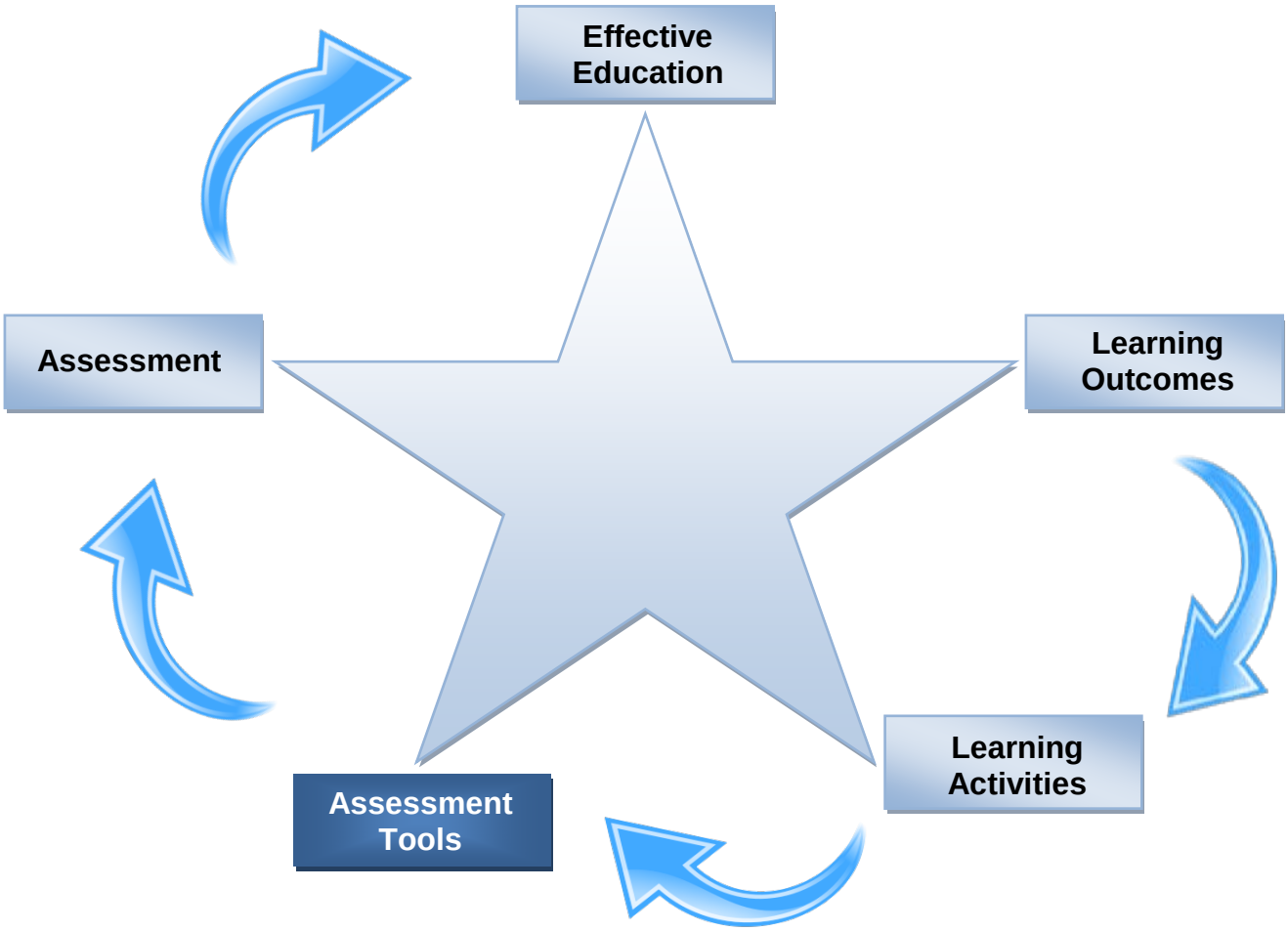

Figure 1.4: Backward design implementation to accomplish effective education
Source: Own design

Effective assessment has, according to Blumberg (2014), three characteristics. First and foremost, assessment should convey a commitment to helping students to acquire knowledge, skills and values. Second, assessment should act as learning events. Third, assessment should enable students to recognise and monitor their own progress. If these three aspects are kept in mind when designing and constructing modules, assessment could be used to improve the quality and impact of teaching and learning. Assessment would then also be seen as equally important to teaching and learning and not in any way subordinated to these two focus points.

The down scaling of the importance of assessment is only one aspect of the problem. Due to the rapid developments in technology as a result of the fourth revolution (see Section 2.2),

not only teaching and learning should focus on the use of technology. Assessment must also move away from the traditional, word-based, timed and venue-based practices. Assessment could lead the evolution of education into the network society by promoting the effective use of technology in the educational environment. Assessment should be multi-dimensional, providing opportunities for students to show that they are able to think and act effectively and in new and innovative ways. By introducing technology-based alternative assessment methods the aim to provide effective education in a knowledge driven network society could actually become reality.

In the third place, assessment should be student-centered (see Section 1.2.1.2). Students focus their learning on what they think or know or assume will be assessed (see Section 1.2.1) and this does not necessarily mean that they have mastered all the knowledge, skills and competencies included in the course material. Therefore, assessment should be very specific – focusing to target exactly and only specific outcomes. Assessment should not be general or vague or focused on knowledge retention alone. Assessment should also help to equip students to become competent graduates in an information and technology driven world.

In summary it can be said that assessment must be treated on an equal basis with teaching and learning. There is a need to move away from traditional assessment methods and for assessment to be student-centered: Assessment should support learning, act as learning events and allow the students to monitor their own progress. Assessment tasks should be focused on assessing exactly what educators want to achieve with the module. It should also allow students to make their own choices and show their creativity and capabilities. Assessment should be restructured to adapt to the information and technology-driven world. This will ensure that assessment is moving in the right direction, as part of teaching and learning, in order to enable students to evolve into self-directed, life-long learners in a constantly changing society. It is therefore necessary to conduct research that specifically focuses on the betterment of assessment practices in higher education.

1.3.1 Research questions

In order to provide effective education for a network, information-based society it is important to focus on assessment as an important role player, equal to teaching and learning. Acknowledging the role that technology can play in enhancing assessment practices, the primary research question is:

What alternative assessment options are available and usable to promote effective higher education?

This research question can be divided into three secondary research questions:

- What technology-based alternative assessment methods are identified for possible use, linked to an example module?
- What are the results of evaluating these alternative assessment methods with the help of the *SECTIONS* model?
- What are the recommendations regarding the possible use of these alternative assessment methods?

1.3.2 Aim of the research

The aim of the research is to identify possible alternative assessment methods that can help to develop effective education practices that are in sync with the needs and expectations of our students (both pre-millennium and millennium generations[9]) and other stakeholders (such as communities and churches), and workable for the blended, ODL environment that will equip students to become self-directed life-long learners.

The objectives are to

- identify possible alternative assessment methods and
- evaluate the usability of these alternative assessment methods with the help of the *SECTIONS* model
- make recommendations for implementing alternative assessment methods to enhance effective education.

1.4 CLARIFICATION OF CONCEPTS

A number of concepts that are used in the study are briefly explained below. These definitions serve to explain the meaning of the concepts within the context of this investigation.

[9] The Theology student profile (Oliver, 2012) shows that both people born before 1980 (pre-millennial generation) and people born after 1980 (millennium generation) form part of the student body. Those born before 1980 are used to a paper-based learning style and traditional assessment methods while the younger generation is familiar with the digital world and living in a network society (Warschauer & Matuchniak, 2010). Jukes and Dosaj (2005) are convinced that the traditional learning approaches are not in sync with the needs and expectations of this generation.

1.4.1 Alternative assessment

Alternative assessment implies that students have a choice regarding the form and content they provide in order to answer questions or to perform tasks (North Central Regional Educational Laboratory, 2003, 2004) that is meant to provide proof to the educator that sufficient learning did take place. This definition suggests that alternative assessment should be seen as an umbrella term that can include various and wide ranging options.

1.4.2 Blended learning

Blended learning is accomplished by using multiple teaching, learning and assessment strategies, a range of technologies, in combination with individual or group interaction (if and when necessary) and the deployment of both physical and virtual resources (Unisa, 2008). Blended learning consists of four components, namely the space blend, the time blend, the media blend and the activity blend (Littlejohn & Pegler, 2007). A number of scholars link the components of blended learning and student-centeredness with each other and advocate that this link could enhance good practice in the higher education environment (Pallof & Pratt, 2011; Garrison & Kanuka, 2004).

1.4.3 Bloom's taxonomy

Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956) is a classification system used to define and distinguish different cognitive levels including thinking, learning, and understanding. The three basic levels include remembering, understanding and applying while the three higher level skills include analysing, evaluating and creating. Bloom's taxonomy forms an important part of assessment procedures at all levels of education. Educators use this to develop assessment tasks to test teaching and learning levels and accomplishments (Hidden curriculum, 2014).

1.4.4 Constructivism

Constructivism is a student-centered learning theory based on the idea that people are active constructors of knowledge and meaning, based on their experiences in life (University of Sydney, 2014). Modern constructivism is anchored in psychology, but it has its roots in the ancient Socratic model (Businessdirectory, 2015). Louw (2010) quotes Mergel (1998) who says that constructivism promotes open-ended learning opportunities and that the learning methods and results of learning may not be the same for all students. In the constructivist approach, teaching is based on a partnership: a dialogue between educator and student on the one hand and between the student and the content on the other. The goal is not to interpret the material for the students, but rather to provide opportunities for the students to

formulate their own questions, to form their own interpretations and opinions of contrasting schools of thought, and "to produce their own texts" (Higgs, Van Niekerk, & Van Wyk, 2010, p.136).

1.4.5 Critical thinking

Critical thinking is a complex concept, which Moore (2013) describes as consisting of seven elements: judgement, a sceptical and provisional view of knowledge, simple originality, careful and sensitive reading of texts, rationality, the adopting of an ethical and activist stance, and self-reflexivity. All of these elements should be included in higher education assessment procedures.

1.4.6 Change agents

A change agent is someone whose presence and/or thought processes and actions cause an alteration from the traditional or conventional way of handling of or thinking about a problem or a controversial issue. This study focuses on the teaching of Theology and therefore another dimension is added to the concept of change agents, namely change through faith. Faith integration is the process of combining the Christian faith and religious experience with the rest of one's life experiences (Cafferky, 2012) and education is structured in such a way that the student is motivated to not only gain knowledge and skills, but also to instigate positive change in the community through the transfer of gained knowledge and skills and competencies (Oliver, 2013).

1.4.7 Digital literacy

The term "digital literacy" was coined by Paul Gilster in 1997. It incorporates the skills and competencies needed (Jaeger, Bertot, Thompson, Katz, & DeCoster, 2012) to access and interact with information from digital sources. Skills include cognitive, motoric, sociological and emotional abilities (Eshet, 2012). The four core competencies listed are internet searching, hypertext navigation, knowledge assembly and content evaluation (Koltay, 2011).

1.4.8 Effective education

Effective education takes place when teaching, learning and assessment are linked correctly and equally with each other. This is done through improved (high level, frequent) communication, active learning and clear and focused assessments (which is no easy task – Weimer, 2013), resulting in positive learning outcomes for life-long, self-directed education. Effective education should be student-centered, assessment-centered, competency-centered and community-directed (Watkins, Carnell, Lodge, Wagner, & Whalley, 2002).

Effective education does not only transfer knowledge and skills, but also enhances behavioural change (Mayer-Mihalski, DeLuca, 2009), which is an important building block for equipping change agents and theologians.

1.4.9 Learning styles

Fleming and Mills (1992) indicate four types of learning styles. Some students have a predominant visual or spatial style of learning. They prefer using images and spatial ways of learning. Another group of students can be classified as mainly aural or auditory learners. They prefer to use sounds (including music) to learn. The third group of students can learn easily with verbal or linguistic tools, including speech and writing. The fourth group prefers to use their bodies, hands and senses to learn effectively. This is called physical or kinesthetic learning. Ddifferent students prefer different media and different styles to learn effectively, and most students use more than one learning style and in a preferred, multimodal order (see also Moreno, Mayer, 2007). Other academics have also built on the concept of learning styles in order to enhance teaching, learning and assessment. Bonk and Zhang, for instance, developed the R2D2 model for learning with the help of technology in 2006 (Bonk & Zhang, 2006).

1.4.10 Multimedia

Mayer (2001, p. 2) defines multimedia as the presentation of material using both words and pictures. He expands this by explaining that "words" include all material presented in verbal form (spoken or text) and pictures include all material presented in visual form, including video, graphs and illustrations as well as three-D constructions and creations. Gonzalez, Cranitch, and Jo (2000, p. 90) define multimedia as "more than just a collection of sound, images, video and animations". Multimedia is, according to them, "a fusion of both the medium and the message to conceive interactive, multimodal information spaces effectively in the form of an artificial environment".

The purpose of incorporating multimedia into the curriculum is to aid learning and to integrate gained knowledge with the life of the students (Gagne, 1965). There is, however, an old debate (started between Clark, 1983, 1994 and Kozma, 1991) on the question whether media really have an influence on learning. This issue is noted, but beyond the scope of the current investigation.

Different students use different media and different styles to learn effectively (Bates & Poole, 2003). Modules developed with the use of multimedia can accommodate different learning

styles and provide a student-centered environment, fit for flexible learning. Therefore the use of multimedia should improve success rates (Armstrong, Blaschke, Brown, Burk, Chanikian, & Chicoate, 2000). However, possible disadvantages like the overuse and misuse of media, limitations of technology (like access and bandwidth) and costs (Armstrong, et al., 2000) should also be kept in mind regarding the choice of media used for educational purposes.

1.4.11 Open Distance Learning

Open Distance Learning is a multi-dimensional concept aimed at bridging time, geographical, economic, social, educational and communication distance between students and the institution, students and educators, students and courseware and students and their peers. Open Distance Learning focuses on removing barriers in order to access learning. It provides flexibility, focuses on student-centeredness by supporting students and constructing learning programmes with the expectation that students are able to succeed (Unisa, 2008). Open Distance Learning is an approach to learning that gives students flexibility and choice over what, when, where, at what pace and how they learn (Unisa, 2008). Unisa, however, still uses due dates and cut-off dates for registrations, submissions of assignments and examination writing and is therefore only "open" in some aspects. It seems as if each university defines openness in its own terms.

Keegan (1980) identified six attributes of distance education which to a large extent can still be used to differentiate this mode of education from others. The elements include

- separation between educator and students
- provision of two-way communication
- the use of technical media to bridge the gap between educator and student and also to transport educational content
- the possibility of occasional meetings for both didactic and socialisation purposes and
- participation in an industrialised form of education.

1.5 CHAPTER OUTLINE

The first chapter serves as an introduction to the study. Academics need to take note of the radical challenges put to education with the movement towards an information-based, network society. Universities need to adapt through a process of continuous development to stay in sync with the demands of stakeholders and the development in technology. Effective education can be provided when teaching, learning and assessment are recognised and treated as equally important foundational pillars of education. This study, however, only

focuses on assessment as the culmination point of the triangle of effective education. The aim of the research is to identify and evaluate assessment methods that are technology driven, and assessable to both students and educators within a blended learning approach, that can be used as an alternative for traditional paper, as well as venue and time-based assessment tasks.

Chapter two focuses on the research methodology used for this investigation. The first part of the chapter focuses on the theoretical approach called academagogy that supports the study. The theoretical framework used in the research is the SECTIONS model of bates and Poole (2003). This model is evaluated in chapter 2 and aspects such as the research paradigm and research approach as well as the data collection and analysis is explained.

In chapter three the ten tools identified as possible alternative assessment tools are individually evaluated with the help of the *SECTIONS* model. The chapter concludes with an example of how these tested alternative assessment methods could be implemented in a second year Theology module. Students are informed that the assessment plan changed from the traditional model to alternative assessment and all tested tools serve as examples to students who can choose to use them to respond to the set assessment tasks of the module. The work schedule that is used to implement this assessment plan is not included in the chapter, but can be found at the back of the study as Appendix A.

Chapter four is the final and concluding chapter of the study. In addition to the summary of the literature review and the data analysis, a synthesis of the research findings and the answers to the research questions form part of this chapter. Some limitations regarding the study are highlighted and a number of recommendations as well as suggestions for further study conclude the chapter.

1.6 SUMMARY

Chapter one touched on the important issue of changes in society and its implications for higher education. It is important for education to adjust to these changes to stay relevant and to enhance the capabilities of students to become creative, competent graduates in a network information-based world. Universities should make paradigm shifts to provide effective education and stay relevant for a changing society. Effective education links teaching, learning and assessment as equally important pillars into a triangle that should form the foundation of module development practices. Assessment, as the culmination point of effective education, should move away from traditional methods to embrace the

opportunities and alternatives that the technology-based world offers. Assessment should be specific and focused on specific outcomes, allowing students to show their competencies and creativity and choose the way they want to respond to the assessment tasks. In order to put assessment on this track at Unisa, as an ODL institution, the study aims to identify and evaluate possible alternative assessment methods or tools that can enhance effective education delivery.

The review of extant literature that underpins this research on assessment and alternative assessment in higher education also includes the policy documentation of Unisa that serves as guidelines for module development and research on alternative assessment tools and methods.

The next chapter focuses on the research approach and methodology that was used in the investigation. The theoretical approach and theoretical framework of the study will be discussed and explained.

CHAPTER 2 RESEARCH DESIGN AND METHOD

Chapter one provided an overview and background on effective education and the important place that alternative assessment has as the culmination point of the framework that serves as a foundation for education. Education in general needs to adjust and adapt to the developing information-based, network society. The problem was formulated and the research questions on which the study will focus, listed.

The first part of chapter 2 provides the theoretical approach that supports the study. Academagogy forms the basic frame for the investigation. The research paradigm used is constructivism and the study will use a qualitative research approach. The *SECTIONS* model of Bates and Poole (2003) is chosen as the theoretical framework. An evaluation of this model is included. The SECTIONS model will be used to evaluate virtual documents. The data collection and data analysis is discussed. The efforts to ensure that aspects of trustworthiness and correct ethical procedures are followed is also discussed.

2.1 THEORETICAL APPROACH UNDERPINNING THIS STUDY

A theoretical framework provides a particular perspective, or lens, or frame through or around which a topic can be examined. Redesigning the B.Th. degree at the University of South Africa brought educators into renewed contact with theories that focus on teaching and learning. There are four major educational theories. Pedagogy is teacher-centered, and provides structured and paced education. Andragogy is student-centered and focuses on adult learning. Heutagogy is student-centered and focuses on self-directed learning. Academagogy is a student-driven theory that allows the educator to choose and apply the most appropriate theory for each learning outcome in the curriculum (Murthy, 2011). An investigation into the use of theories in the B.Th. programme, disclosed that there is a definite need to implement academagogy. Educators can incorporate pedagogy, andragogy and heutagogy, depending on the context, difficulty level and needs for each set goal or outcome. The theoretical framework underpinning this study is academagogy, and therefore the other three educational theories are also included. First of all, a short introduction on academagogy will be given, followed by an explanation of which aspects of andragogy, pedagogy and heutagogy are important for this study.

Academagogy is a student-centered teaching theory that encourages life-long, self-directed learning. This theory enables educators to select and use the most appropriate learning styles in which to present both the study material and assessments for each required

learning experience and activity (Winter, Auliffe, Chadwick, & Hargreaves, 2009). Academagogy is a mesh of pedagogy, andragogy and heutagogy that allows for flexibility and encourages feedback from students (McAuliffe, Hargreaves, Winter, & Chadwick, 2008). The combination of these three major theoretical constructs into academagogy could enhance good teaching practices (Palloff & Pratt, 2003) and will be discussed in short hereafter in order to explain why the combination of these theories into academagogy could help educators with module design and therefore why this theory was chosen for this study.

Pedagogy is a teaching theory based on the transmission of information and skills from a master – normally an adult or older person – to a student, normally a child or younger person. This is the oldest teaching theory, known since ancient times. Pestalozzi (1746-1827), known as the father of modern pedagogy, argues that learning should involve the whole person and should take place through activity (Pestalozzi, 1821).

Andragogy can be described as a learning theory based on transaction; addressing the immediate, practical needs of context-dependant learners; that was developed as an expansion of pedagogy. Andragogy refers to self-directed learning and it focuses on the needs of adult learners in the higher education environment (Knowles, 1970). This theory focuses on five aspects (Conner, n.d.). In the first place the students should know why something is important to learn. Second, the students should be instructed on how to direct themselves through the information. The topic must be related to the experiences and world of the students. Fourth, the education must accept the fact that students will only learn when they are ready and motivated to do so. Last, educators must help students to overcome inhibitions, and to acquire positive behaviour and beliefs about learning.

Heutagogy is a learning theory that focuses on self-directed, flexible learning (Hase & Kenyon, 2001) that could also be described as self-determined learning (Blaschke, 2012). The term "heutagogy" was coined by Hase and Kenyon of Australia in 2001 as an extension of the work done by Knowles in 1970 on andragogy which was a development of the work done since 1950 in the field of pedagogy. Heutagogy is an expansion and reinterpretation of andragogy and it requires educational initiatives, including improvement of learning skills, and focuses on both formal and informal learning contexts. Students take responsibility for their own learning (Canning, 2010) while the educators function as knowledge and skills brokers (Singh, 2003). Argyris and Schon (1996) made the initial paradigm shift from teacher-centered learning to heutagogy with their conceptualisation of double loop learning.

Meshed theories like academagogy and heutagogy focus on the needs and development of the learner. It acknowledges the fact that learning is neither linear nor planned and it involves much more than problem solving alone (Hase & Kenyon, 2001). It enables students to move beyond curriculum bounded knowledge retention and skills acquirements towards building capacity and capability (Hase & Kenyon, 2007).

Academagogy can be seen as an umbrella concept that can be used across diverse cultural and generational student backgrounds as well as within varying disciplines. Academagogy promotes participation from both educators and students through high level communication and teamwork (Murthy, 2001). It supports a holistic approach, allowing for the transformation of knowledge into application and impacts on behavioural change (Murthy, 2001). Students should develop knowledge and confidence as independent thinkers and this should lead to new thought processes through building on students' prior knowledge (McAuliff, et al., 2008). Academagogy is applied to tailor teaching, learning and assessment to suit the students' needs and test the results of their learning. It requires flexibility to comply with the students' own learning and life experiences (McAuliff, et al., 2008). Learning should be an "active process" (Long, 1990, p. 36) that is happening constantly, aligned with experiences and activities and therefore needs to be immediately available and adaptable to unique circumstances, needs and creativity levels. Unlearning and re-learning form an integrated part of this learning process (McLoughlin & Lee, 2010) and the emphasis on active enablement with technologies is an important positive aspect of academagogy.

The product developed based on the academagogy theory must be flexible and students of both the pre-millennium era and the millennium era should be able to fully participate in the module with the potential to achieve excellent results. Educators play a supportive and facilitator's role and the most important positive outcome is the fact that students acquire knowledge and skills that enable them to become confident independent thinkers (McAuliffe & Winter, 2013). The allowance for choice ensures that learning can be designed to be enjoyable, adventurous, interesting and rewarding (Race, 1999).

The greatest drawback of using academagogy as a theory is the fact that the development process could be very time consuming, because educators have to search and select various learning activities and learning styles and link them with multimedia content, as well as appropriate assessment tools and tasks to effectively test and assess whether the learning outcomes and goals were reached in order to facilitate student success. However, it could aid in the construction of effective education with widespread positive outcomes and therefore academagogy was chosen as the theoretical approach for this study in order to

investigate the use of assessment technology in higher education. Next, the rationale for the research is discussed.

2.2 RATIONALE: THE NEED FOR ALTERNATIVE ASSESSMENT

Post-modern society is transforming due to the so-called "fourth revolution" (Warschauer & Matuchniak, 2010, p. 179). The first revolution that society experienced was sparked by the development of language. The second revolution started with the development of writing and the third, that dominated until recently, was set in motion by the use of the printing press. The fourth revolution, the one that we are currently experiencing, is living within a network society. Individuals are increasingly creating and defining their own network environments through the use of emerging and evolving technologies. Although the fourth revolution has already influenced society for a number of years, it seems as if the potential impact that a network society and technologies could have on higher education is not yet fully understood or researched (Greenhow, Robelia, & Hughes, 2009). Not all people form part of the information-based, network society, but most people are affected by these revolutionary events (Castells, 2009). The primary challenge for higher education in Africa is to provide effective education for a society that is fragmented on all levels (such as access to and costs of technology, basic education standards, skills and financial resources to name but a few), but also aspiring to become an information-based economy where the effective use of technology by everyone could be taken for granted.

When adjustments are made to move from teacher-centered education to student-centered education (see sector 1.2.1.2), traditional assessment measures also have to change. This means that the educator no longer determines and totally controls the content, objectives, outcomes, assessment and pacing of the module. Students must become active contributors (Lee & McLoughlin, 2010). Alternative assessment is based on authentic tasks that demonstrate the students' ability to accomplish goals (National Capital Language Resource Center, 2003, 2004). This is not a new or recent development in academic circles. What is new is the challenge to move some of the existing alternative assessment methods to a more open format on the one hand, and on the other hand sifting and incorporating the large number of new developments in the e-learning environment into effective assessment tools. The focus shifts from grades to students (Educause learning initiative, 2014).

Alternative assessment uses activities that reveal what students are able to do with the knowledge and skills obtained through learning, emphasising their abilities and strengths, instead of focusing on their weaknesses and what they do not know (National Capital

Language Resource Center, 2003, 2004). Alternative assessment is performance-based, works well in student-centered environments and is based on the notion that students can evaluate their own learning and learn from the evaluation process (National Capital Language Resource Center, 2003, 2004). Alternative assessment allows students to be active and engaged. Even failure can be seen as a valuable component of the learning process and not as a final outcome (Educause learning initiative, 2014).

The shift to alternative assessment also has a negative side. Alternative assessment is labour intensive, time consuming and costly. It requires a hands-on approach as well as continuous training and development opportunities for educators, because their way of supporting self-directed learning must remain relevant to the student community they teach. However, these challenges can be converted into new and life-long learning opportunities, job creation, skills development and creation of new specialisation fields within the educational system. Just like the students who are trained today for jobs that do not yet exist, it is possible that the role of educators in the future will undergo a metamorphosis. Regarding the need for a change in assessment to fit in with these changes, it is necessary to state in short why traditional assessment needs alternation.

In addition to the overload problems experienced by both students and educators already mentioned (Section 1.2.1.1) regarding the traditional assessment practice of written assignments and a venue-based examination or portfolio, this method of assessment is neither keeping up with technological developments in the network society (Doyle, 2011), nor is it aiding to bridge the existing geographical and time gaps in ODL practices (Oliver, 2012).

If not closely moderated, it can happen that some traditional assessment tasks are not linked to each and every learning outcome and the set assessment criteria of a module. The learning outcomes and assessment criteria are not always clearly and sufficiently communicated to the students in understandable, user-friendly language (Race, 1999) and therefore students often do not see the benefit of completing these tasks. Focusing on self-directed learning (see Section 2.1), research already clearly indicated that the increased flexibility of this theory brings with it increased responsibility required from the students (Asthon & Newman, 2006). However, not all students – even at post-graduate level – are able or willing (Hill, 2013) to make this transition without full support and motivation. Educators need to explain the benefits of this type of learning and its link to alternative assessment methods to encourage students to function in a learning environment where they must take control of and manage their own learning and progress.

The inability to transfer to self-directed learning is caused by ineffective educational practices that could be linked to traditional assessment methods. Traditionally, both students and educators are pre-conditioned towards pedagogy due to the structured, face-to-face secondary educational environment. Students are satisfied with mediocre results, not wanting to achieve more than the minimum requirements (Hase, 2009). Researchers like Winter (Winter, et. al., 2009) go further and say that students do not really want to learn. They want to be successful – pass the modules and obtain a qualification – with the minimum input from their side. They do not want responsibility (Hill, 2013), nor do they want to change their viewpoint or actions as a result of their studies, which is the end result of true learning (Buscaglia, n.d.). Students often fail to grasp the bigger picture of life-long learning influencing all aspects of their lives and development.

Traditional assessment tasks are often formulated in such a way that it does not leave room for creativity or student choices. Variations in marking and inadequate feedback could affect the quality and impact of assessment tasks. This short summary of basic weaknesses of traditional assessment methods emphasises the need for alternative assessment methods that can lead to more effective assessment practices that will enhance student learning and keep up with technology development within the educational sector.

Alternative assessment methods could help to address these issues. Alternative assessment development should be an on-going process, keeping up with the needs and achievements of the knowledge-based, network society. The research paradigm used is constructivism and will be discussed next.

2.3 RESEARCH PARADIGM

Learning is not only the acquisition of knowledge by individuals, but also a process of social participation and personal formation (Lave & Wenger, 1991). This process does not always have a formal beginning and end, nor can it be separated from the rest of our lives and it could not be seen as "the result of teaching" (Wenger, 1998, p. 3). In the **constructivist*** paradigm, education is based on a partnership; a dialogue between educators and students on the one hand and on the other hand between the students and the module content. The goal is to provide opportunities for the students to formulate their own questions and concerns, to form their own interpretations and opinions regarding contrasting ideas and to become knowledge creators and contributors through their own creation of multimedia (Higgs, Van Niekerk, & Van Wyk, 2010). By focusing on assessment methods that can

support this approach, this study will be done as a qualitative investigation, using the *SECTIONS* framework.

2.4 RESEARCH APPROACH

Golafshani (2003) provides a definition of qualitative research by studying and combining a number of other definitions: Qualitative research is seen as "research that produces findings not arrived at by means of statistical procedures or other means of quantification" (Strauss & Corbin, 1990, p. 17) where the "phenomenon of interest unfolds naturally" (Patton, 2001, p. 39) with the aim to illuminate, understand and generalise to similar situations (Hoepfl, 1997). In the current study, the "phenomenon of interest" is possible alternatives to traditional assessment methods in a blended ODL environment, with the aim of generalisation of the results into the broader educational field. This is done by identifying and evaluating various possible alternative assessment methods. The evaluation tool that is used to test the applicability of the alternative assessment methods is the *SECTIONS* (S=students, E=ease of use and reliability, C=costs, T=teaching and learning, I=interactivity, O=organisational issues, N=novelty, S=speed) framework developed by Bates and Poole (2003).

2.5 THEORETICAL FRAMEWORK

The *SECTIONS* framework developed by Bates and Poole (2003) was designed through the Instructional Systems Design procedure (Moore & Kearsley, 2011) and focuses on the use of technology to enhance higher education. The focus on technology and higher education makes it an appropriate tool for this investigation.

Instructional Systems Design is a set of procedures used for the development of instructional programs such as ADDIE and *SECTIONS* (Moore & Kearsley, 2011). *ADDIE* (A=analysis D=design D=development I=implement E=evaluate) is older than the *SECTIONS* model. *SECTIONS* was designed specifically for use in higher education and focuses directly on evaluating the use of technology in higher education. Bates developed the *ACTIONS* model in the 1990s and amended it slightly to become the *SECTIONS* model in 2003 (Bates & Poole, 2003). The *SECTIONS* framework with its firm focus on the student at the centre is used as the instrument of evaluation of the ten selected alternative assessment tools. This model provides a holistic framework to evaluate the use of new and developing forms of educational technology. It is broad and includes most aspects of tertiary education such as student-centeredness, pedagogical strategies and organisational capacity (Boyes, Dowie, & Rumzan, 2005). The model is actually a framework where headings are provided and educators are free to add and expand the topics that are investigated under each of the

headings to link with the purpose and scope of the investigation. This makes it a useful and versatile tool.

Alternative assessment methods could enhance effective education, but these methods must be evaluated before it can be incorporated into the curriculum to ensure that they are fit for purpose and are contributing towards effective education. There should be guidelines in place that educators can use to ensure that the tools and methods that they intend to use, would be appropriate and workable. Bates and Poole (2003) developed a framework called *SECTIONS* that focuses on evaluating technology-driven tools for use in higher education. The usability of this framework will be discussed next.

2.5.1 EVALUATION MODEL FOR ALTERNATIVE ASSESSMENT: *SECTIONS*

Before a decision can be taken on implementing alternative assessment tools and methods into a module, there should be an evaluation process to determine if the tools that the educators intend to use, are compatible and usable for the institution and the module. There are several Instructional System Design evaluation models such as ADDIE (Branson, Rayner, Cox, Furman, King, & Hannum, 1975) and the Dick and Carey Systems Approach Model (Dick & Cary, 1996/1978). The *SECTIONS* model by Bates and Poole (2003) was developed specifically to evaluate educational technology in higher education.

An example of how the *SECTIONS* framework (Bates & Poole, 2003) can be implemented is found in the work of Boyes, Dowie, and Rumzan (2005). The authors are instructional specialists and e-learning analysts providing assistance to instructors in the Extension Division of the University of Alberta, Canada. Although they are convinced that there are numerous factors that could and should be taken into consideration when choosing a tool to evaluate aspects of higher education, they are of the opinion that the *SECTIONS* framework could be used effectively by team members having different perspectives and coming from different backgrounds and levels of expertise to evaluate educational resources. Development teams (Unisa also uses a team approach to curriculum development – Unisa, 2013b – see Section 1.2.2.3) are able to use this tool because it is both flexible and comprehensive.

Another helpful source regarding the use of the *SECTIONS* model is found in the work of Underhill (n.d.) regarding the assessment of technology. The author unpacks the *SECTIONS* framework to assist educators with drawing the links between the set goals, the support

required and the technology used. The evaluation process is divided into four parts: define, assess, implement, and refine, according to management principles (Spurlin, 2006). Each of these parts is presented in more detail with helpful hints and suggested questions and platform tools to assist with the process of evaluation. This is an example of creative use of the *SECTIONS* tool and actually provides a worksheet or practical example of how to implement the *SECTIONS* model when evaluating tools for use in education.

Working within the constructivist paradigm (see Section 2.3) which views knowledge as socially constructed and changing, depending on circumstances, an open-ended perspective is needed when it comes to the notion of validity and reliability (Golafshani, 2003; Mergel, 1998). The researcher must ensure high consistency and accuracy of all tests and scores although s/he knows that the data and results could change even while the analysing process is still on-going. However, the *SECTIONS* model can be used repeatedly to expand tests and consolidate previous results with more recent results in a continuous process, if needed.

The answers to the example questions used in the *SECTIONS* model (below) provide data for the evaluation process. Questions can be added under each heading to focus on specific information to cater for different needs or aspects that need to be tested. Assessment of the data provides an indication as to where and how adjustments and improvements should and could be made to improve the effectiveness of the use of alternative assessment tools in the learning process.

The acronym "*SECTIONS*" serves to identify the main sectors that need to be considered during the evaluation process. The description below is based on the framework as described in Bates and Poole (2003):

S = STUDENTS

Students are the main stakeholders and primary focus area. Therefore, the following issues could guide the investigation under this heading:

- What are the student demographics?
- What learning styles are used?
- What are the digital literacy levels of the students?
- Do the students have affordable and convenient access to technology?
- Is the use of technology appropriate for this particular module, keeping in mind that the students must have their own say about meeting their needs?

E = EASE OF USE AND RELIABILITY

This part of the investigation focuses on the technology that is used in the module. Questions include:

- How user-friendly is the technology for the educators?
- How user-friendly is the technology for the students?
- How long does it take to get familiar with the technology?
- Are training options available?
- How simple or difficult is the interface design?
- Is the technology well tested?
- Is the technology applicable and fit for purpose?
- How reliable and stable is the technology?

C = COSTS

Costs include both individual items and drivers of costs (see Section 3.5.3). Some of the issues that can be investigated include:

- What is the cost structure of each technology?
- What is the cost of individual items?
- What are the drivers of costs?

T = TEACHING AND LEARNING

The main focus of the university is to provide effective education opportunities. Issues to consider include:

- What are the university policies that need to be adhered to?
- Which teaching and learning theories will be used?
- Which assessment methods will be used?
- What are the needs of society, students and other stakeholders?
- Which technology was identified that best meets the needs?
- Which technology is needed to support these needs?

I = INTERACTIVITY

Technology can support interactivity and this should advance the learning experience. Issues to consider include:

- What is the kind of interaction?
- What is the level of interaction?
- What is the quality of interaction?

O = ORGANISATIONAL ISSUES

The focus is on ODL and the blended approach to higher education. Issues that are related to this include:

- What are the organisational requirements?
- What are the barriers to be removed?
- What are the changes needed?

N = NOVELTY

Questions to consider include:

- How new is the technology?
- Is it well tried and tested in the educational environment?
- How familiar are the educators with the technology?
- How familiar are the students with the technology?
- Are all the issues stated under "ease of use" and "reliability" covered for the new technology?

S = SPEED

Speed is important when change comes into play. Questions that need to be answered include:

- How quickly can the assessments be mounted with this technology?
- How quickly (and easily) can content be changed, corrected or updated?
- To what extent can this be handled by educators?

The headings of the *SECTIONS* model provide a framework for the evaluation process of technology-based tools that can be used to enhance education. In order for higher education to stay relevant within the information-based, network society, it is important to move towards the incorporation of technology into the educational system, but this cannot be done without thorough research to provide choices and guidelines regarding the vast number of available tools. The *SECTIONS* model provides an option for evaluating technology tools for use in education. The data collection for the research is discussed next.

2.6 DATA COLLECTION

This research focuses on the study of documents. Document analysis is the study of existing documents (Ritchie & Lewis, 2003). In the network and information-based society, however, documents no longer only refer to ink and paper or electronic versions thereof, documents can include all information that is freely available to the public (Strydom 1997), including

technology created, "virtual documentation" (Jupp, 2006, p. 80). It should also be kept in mind that this virtual documentation, as well as most other documentation, is not developed or written with a view to or intention towards research (Marlow, 2005). Even the concept of "printed material" is currently expanding as 3D printing is escalating fast and in various sectors unrelated to what the term "printing" used to mean. The "documents" that will be evaluated in this study are interactive web-based products that will be assessed as possible alternative assessment tools for a second year Theology module. Based on the learning outcomes and learning activities linked to the assessment criteria of the module, a total of ten documents or tools (see Section 3.4) was selected that could be used as alternative assessment methods. These documents were evaluated through document analysis.

2.7 DATA ANALYSIS

Document analysis can be described as a systematic evaluation of documents. These documents could include printed and electronic (computer-based and internet-transmitted) material, and contains words, audio or images or a combination of these that have been constructed without the researcher's intervention (Bowen, 2009). The use of document analysis in the broader sense of including multimedia would enable the process of exploration, analysis, understanding and interpretation of alternatives to traditional assessment tools in the network, information-based environment in a constant move towards the incorporation of instruments that allow the educator "to account the semiotics complexities of this expanding universes of sense on the Web" (Constantino, Raffaghelli, Alvares, & Moran, 2012, p. 125).

Bowen (2009) lists both the advantages and limitations of document analysis as a research method. Focused on the current investigation, advantages include the following:

- The documents are in the public domain
- The documents are not affected by the research process
- It requires data selection and not data collection
- The method is suitable for repeated reviews
- It is cost effective research.

There are some limitations to this research method for this specific study, including:

- Some of the documents that are evaluated were produced for purposes other than research or assessment, with no intended connection with education.
- Constant and rapid technological developments could mean that some potentially important documents are not included (De Vos, Strydom, Fouche, & Delport, 2011) in

the study which could suggest "biased selectivity" (Bowen, 2009, p. 32) or an incomplete investigation. The researcher is required to demonstrate objectivity and sensitivity in both the selection and analysis of data (Bowen, 2009).

In an attempt to limit the possibility of biased selection and/or analysis, inter-rater reliability[10] was applied. Inter-rater reliability is a process "whereby data are independently coded and the coding is compared for agreement" (Armstrong, Gosling, Weinman, & Marteau, 1997, p. 597). The researcher was assisted in the data selection and analysis processes by a small team of observers, to ensure reliability and validity. The team included theologians, one from each of the three Theology departments at Unisa and an observer from another department within Unisa who, together with the researcher, completed a certificate course in the use of technology in higher education at the University of Maryland University College (UMUC) in 2013 (see Appendix B), that forms part of the M.Ed. degree in Open Distance Learning at Unisa. Inter-rater reliability tests (cf. James, Demaree, & Wolf, 1984) on a similar investigation assessed and confirmed the degree to which the different observers provided constant estimates.

2.8 ETHICAL CONSIDERATIONS

This research project did not involve any human participants or any other living participants. Ethical clearance was obtained before the onset of the study from the College of Education at Unisa (see Appendix C).

The research did not contravene the Policy on Research Ethics (Unisa, 2014). Existing multimedia options were tested through document analysis against an existing research instrument (*SECTIONS* model) to evaluate their potential use as alternative assessment tools in higher education. The study contributes to knowledge regarding alternative assessment methods that could benefit the higher education academic community in terms of module design and the implementation of effective education practices.

2.9 TRUSTWORTHINESS

Educators and students live in a constantly changing environment where knowledge is socially constructed and also constantly changing and therefore reliability and validity are seen as "tools of an essentially positivist epistemology" (Winter, 2000, p. 7) This study lends

[10] Inter-rater reliability is the extent of consistency among different observers in their judgements, as reflected in the percentage of agreement or the degree of correlation between their independent ratings of the same objects of investigation (Rubin & Babbie, 2007).

itself to possible diverse constructions of reality (cf. Golafshani, 2003) and inter-rater reliability was used to ensure credibility and validity of the results. The findings on the evaluation list were compared with previous work and also compared with the findings of a small team of academics from Unisa (cf. De Vos, et. al., 2011). Results were discussed with members of this team and consensus reached on the findings. However, the research will only provide provisional results and a basis upon which similar investigations could be done. The ability to generalise results, as a test for validity and reliability, should prove the trustworthiness of the research as the research findings and recommendations could be implemented in other modules and programmes.

2.10 SUMMARY

Teaching, learning and assessment, all three corner aspects of education, need to be addressed to ensure effective education. These cornerstones of education are linked together through the theory of academagogy that enables academics to use the most appropriate learning styles in which to present both the content and assessments for each required learning experience or activity. The rationale emphasizes the need for alternative assessment methods in higher education.

The Instructional System Design evaluation model developed by Bates and Poole (2003) that would be used to evaluate the different technology-based tools that could be used for alternative assessment options is evaluated as this model will serve as the theoretical framework to the research.

Technology provides opportunities to explore alternative methods to enhance the effectiveness of assessment. These technology-driven methods need to be researched and evaluated in order to determine their usability in the educational system as most of these tools were not designed primarily to serve the educational sector. A detailed description of the evaluation of the selected technology-based assessment tools will follow in the next chapter.

CHAPTER 3 DOCUMENT ANALYSIS OF ALTERNATIVE ASSESSMENT TOOLS

3.1 INTRODUCTION

Effective education consists of a triangle with teaching, learning and assessment as the three corner posts. Assessment is an important part of the educational structure. In the technology-based environment, it is important to evaluate alternative assessment tools and methods for possible inclusion into the university's modules. The Instructional System Design evaluation model developed by Bates and Poole (2003), was discussed in the previous chapter and will now be used to evaluate the ten "documents" or technology-based assessment tools for possible inclusion into the assessment practices at Unisa.

A summary of the five learning activities extracted from the learning outcomes (LO) of the module are listed and briefly described to explain why the specific tools were chosen for the document analysis. The assessment tools chosen are evaluated in the second part of the chapter.

Linked with each of the *SECTIONS* model headings, the document analysis starts with general information to provide an overview of the connection between the module and the specific focuses of the *SECTIONS* model headings. This is followed by the actual evaluation of each of the ten tools, carried out with the help of a checklist based on the example of Underhill (n.d.) and expanded to include relevant topics such as effective education criteria (Blumberg, 2014), learning styles (Fleming & Mills, 1997) and Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). The purpose of using this expanded checklist to do the document analysis is to determine the potential fit between the learning outcomes, the learning activities identified to achieve these outcomes and the assessment methods that could be used to measure student progress in achieving these outcomes. Based on the results of the document analysis, recommendations regarding the usability in the educational system will be made for each tool.

Finally, an example of how these tested tools can be implemented in the example module is discussed. The second year Theology module *World Christianity and Ecumenism* serves as an example of how the tested tools can be incorporated to move the assessment plan of the module from the traditional essay type assignments and venue-based examination to continuous assessment that provides students with choices and contribute towards their

development of skills and competencies in addition to gaining knowledge while completing an academic module.

3.2 ALTERING OF ASSESSMENT TASKS

Altering assessment tasks and tools is a complex and time consuming exercise. First of all, the assessment tasks must be in line with the basic purpose and principles for effective assessment (see Section 1.2.3.2.2). The most important aspect of a change in assessment is that it should be clearly and effectively communicated to all students before the start of the academic semester. The assessment tasks should shape learning, allow students to monitor their progress and allow for quality feedback and feed-forward opportunities to assist all students. The assessment tasks should accommodate different learning styles, enhance general digital literacy, be interactive and promote transferable skills and competencies. Alternative assessment tasks should also provide students with choices. The assessment tasks must be linked to the learning outcomes as well as to specific learning activities of the module to ensure that the key concepts, knowledge, skills and attitude captured in the content is thoroughly assessed at all cognitive levels (see Section 1.4.3).

The link between the learning activities of the module and the possible alternative assessment tools that could be implemented for use will be discussed next and the ten tools (two tools are linked to each learning activity) that will be used in the document analysis are identified. There are an unlimited number of multimedia products (Hart, 2015; Muthler, 2015; Noodle staff, 2015) that can be used as alternative assessment tools and due to the constant development in technology they increase and change almost on a daily basis. Only a few options are listed as examples linked to the learning activities from which two for each learning activity were chosen to be included in the document analysis. These tools were selected due to the possibility of being used by students as a means through which they could submit their assessment tasks. The tools are freely available on the internet and most of them are known in the educational environment. Two of the best known examples are chosen for each learning activity to provide students with a choice and limit the scope of the investigation with a reasonable number of tools to be evaluated.

3.3 LEARNING ACTIVITIES AND ASSESSMENT TOOLS

Five major learning activities are used to measure the students' progress in achieving the set learning outcomes of this specific module. These learning activities are research, construction, reflection, action and cognition. Numerous assessment tools can be used to assess these activities. Alternative assessment is all about providing students with choices

(North Central Regional Educational Laboratory, 2003, 2004) and therefore there should be a number of choices for each of the assessment activities, keeping in mind that all learning activities should be linked to specific and appropriate levels of Bloom's taxonomy, as expressed in the level descriptors for assessment supplied by the South African Qualifications Authority (SAQA, 2012). Educators use the taxonomy to develop assessment tasks to test teaching and learning levels and accomplishments (Hidden curriculum, 2014).

- Research activities include systematic investigation, study of information and reporting on gained knowledge and skills. Research can be linked to both lower and higher level thinking skills. Assessment tools to assess research capabilities include all forms of information hunts, as well as wikis and research reports.
- Construction is a higher cognitive skill and implies that the students will have to design and create evidence to prove that they are capable of creating content in the tested areas. Assessment tools that can be used include word clouds, collages, posters, banners, flyers, advertisements, songs, poems, and web pages.
- Reflection helps students to track their own progress and to become aware of changes in their personal attitudes, values and skills. The students reflect on their own work or that of others in a variety of ways (prescribed or open) in order to internalise their learning. Reflection is linked to the higher cognitive level of evaluation (Clark, 2015). Blogs or journals, webinars, chatrooms, discussion forums and self-evaluation assessment can be used as effective reflective assessment tools.
- Learning should be an active process and student actions are therefore important for assessment purposes. It requires both lower level and higher level skills to perform learning activities. Actions include creative, open-ended tasks and projects.
- Cognition involves mental processes including aspects like awareness, perception, reasoning and judgement and is also a higher level activity. Mind maps, fill-the-gaps and debates serve as examples of assessment for this learning activity.

Each one of the learning activities is linked to different assessment tools that can be used to assess that specific activity. These assessment tools are examples of technology driven assessment methods that can assess student competencies to achieve the learning outcomes of the module. It is possible to expand this research by adding assessment tools to some or to all the listed learning activities, but that is beyond the current scope of investigation. Assessment tools from all the learning activities are included in the document analysis to determine their efficacy as alternatives to traditional assessment methods.

3.4 IDENTIFICATION OF ALTERNATIVE ASSESSMENT TOOLS FOR DOCUMENT ANALYSIS

Linked to the learning activities, a number of assessment tools were individually evaluated by the researcher and the team who provided inter-rater reliability control (see also Section 2.9). After the learning activities were extracted from the set learning outcomes of the module, possible alternative assessment tools were identified and the academics narrowed the choice down to two tools per learning activity.

The researcher developed a check list for evaluation of the tools according to the *SECTIONS* framework based on an example by Underhill (n.d.) and expanded to include those relevant aspects that are important to provide effective assessment. In order to ensure validity and reliability, a number of academics were approached to form part of a team to provide inter-rater reliability for the research results. Discussions were held and a short similar task was performed in order to ensure that the data and coding of the team were in agreement. The team of inter-raters completed the checklist individually and in accordance with their personal experience with and knowledge of the tools. Discussions were held to reach consensus where the results differed.

The assessment tools that were identified for use as alternative assessment methods and therefore subjected to the document analysis are: Edublog, Weebly, SurveyMonkey, Diigo, Glogster, Wordle, Wikispaces, YouTube, Twitter and Coggle. A number of factors influenced these choices. The first criterion for selecting these ten tools was the link with specific learning outcomes and learning activities. Second, some of the tools were incorporated in the curriculum of the UMUC certificate course (Appendix B) and therefore the researcher as well as members of the inter-rater group previously experimented with these tools in an educational environment and experienced positive results. Educators are confident that, based on their own experience, that students will be able to learn to operate the tools relatively easy. These tools are internationally used in higher educational environments. Some of these tools are already unofficially part of the toolkit at Unisa, because both educators and students often use them for educational purposes. Third, all tools need to have a free option that can be used in the educational environment. Fourth, tools that are available in South Africa and usable on most types of devices were selected. Fifth, the selected tools should provide students with choices. Sixth, some of the tools were included because they are famous as educational tools (Twitter was voted number one learning tool for the last six years). Seventh, although similar tools (such as a blogging tool and a survey and a wiki) could be used on the *myUnisa* LMS, this investigation focuses on tools that are

available outside of the university structure. Last, and very important, the tools must be free of costs for use in the educational environment. Costs, when compared to traditional assessment methods, should be minimal both for educators and students.

The use of these tools for assessment should also minimize time and effort needed by students to do and submit their assessment tasks. Educators should also be able to assess these tasks easily and provide feedback within a very short turnaround time to increase effectiveness.

The next part of this chapter focuses on the document analysis of the ten identified tools. First of all, a general overview is given linked to the *SECTIONS* headings and following this, the actual evaluation of each individual tool is done.

3.5 *SECTIONS* ANALYSIS

3.5.1 Students (*SECTIONS*)

Effective education needs to be student-centered. Bates and Poole (2003) identify three important issues related to students: demographics, different learning styles and affordable and convenient access to technology. These and other important issues regarding students as the primary stakeholders will be discussed under the following headings: *Student demography*, *Student diversity* and *students and technology* to link with the three topics identified by Bates and Poole under this heading.

3.5.1.1 Student demographics

The Unisa student profile (see Figure 3.1 and Figure 3.3) shows that the majority of Unisa students (58,6%) are aged between 25-39 (Van Zyl & Barnes, 2014). Most students are women: 62,9% female students compared to 37,1% males (Van Zyl & Barnes, 2014). The B.Th. student profile (Van Zyl, 2015) differs significantly from the general Unisa profile, in fact it seems to be a mirror image of the Unisa profile (see Figure 3.2 and Figure 3.3). Students are older and there are more male students than female students in the programme (64,2% male, 35,8% female). In the Unisa profile, nearly sixty percent of students are aged between 25 and 39 while in the B.Th. profile, more than sixty percent of the students are older than 40. This means that the majority of the students enrolled to study Theology are from the pre-millennium generation (see Section 1.3.2) and would require scaffolding (see Section 3.7.2) and extra support with the issues such as the development of digital literacies.

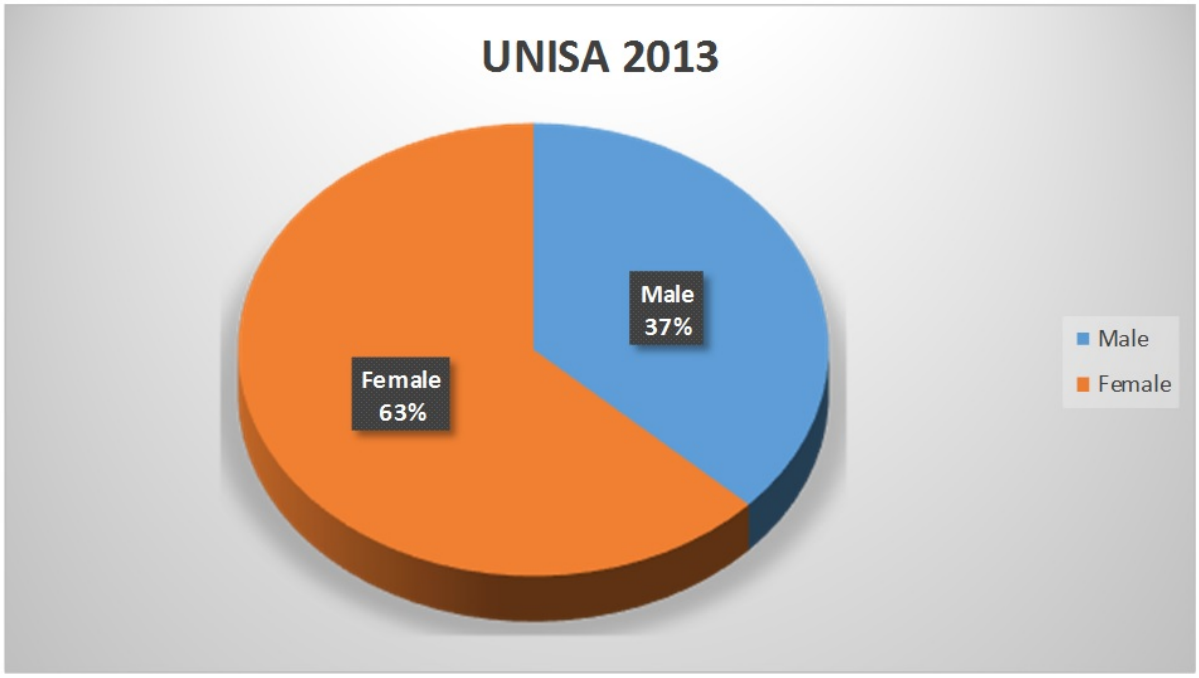

Figure 3.1: Gender of Unisa students

Source: Own design

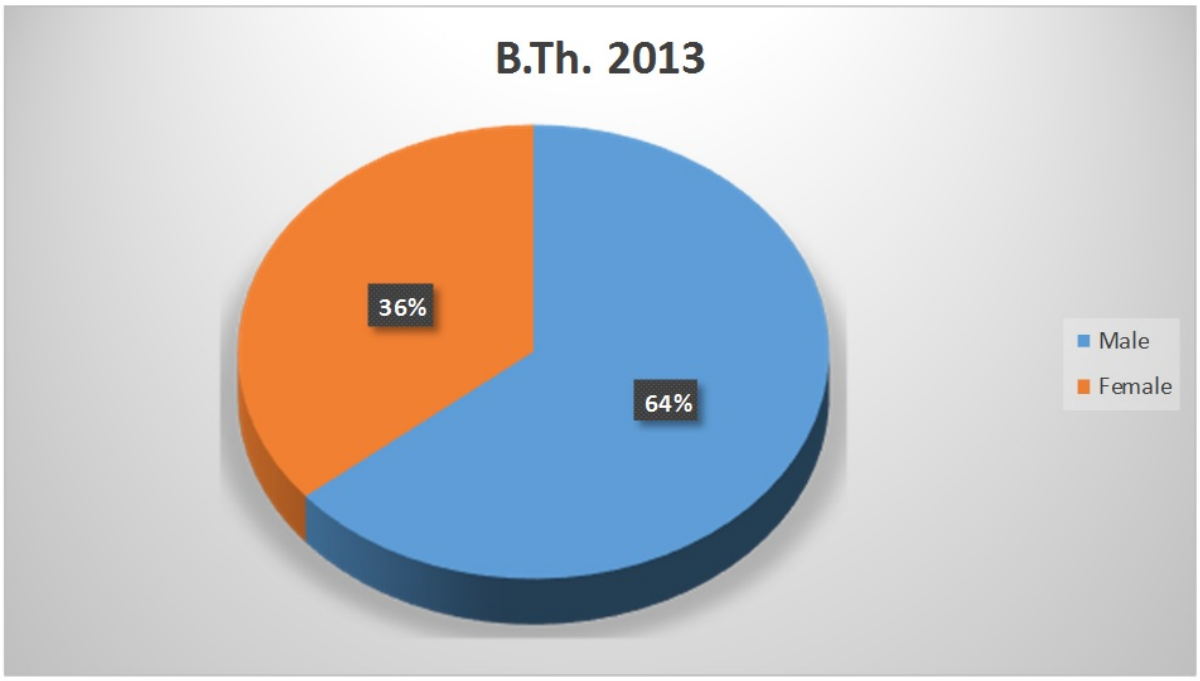

Figure 3.2: Gender of B.Th. students at Unisa

Source: Own design

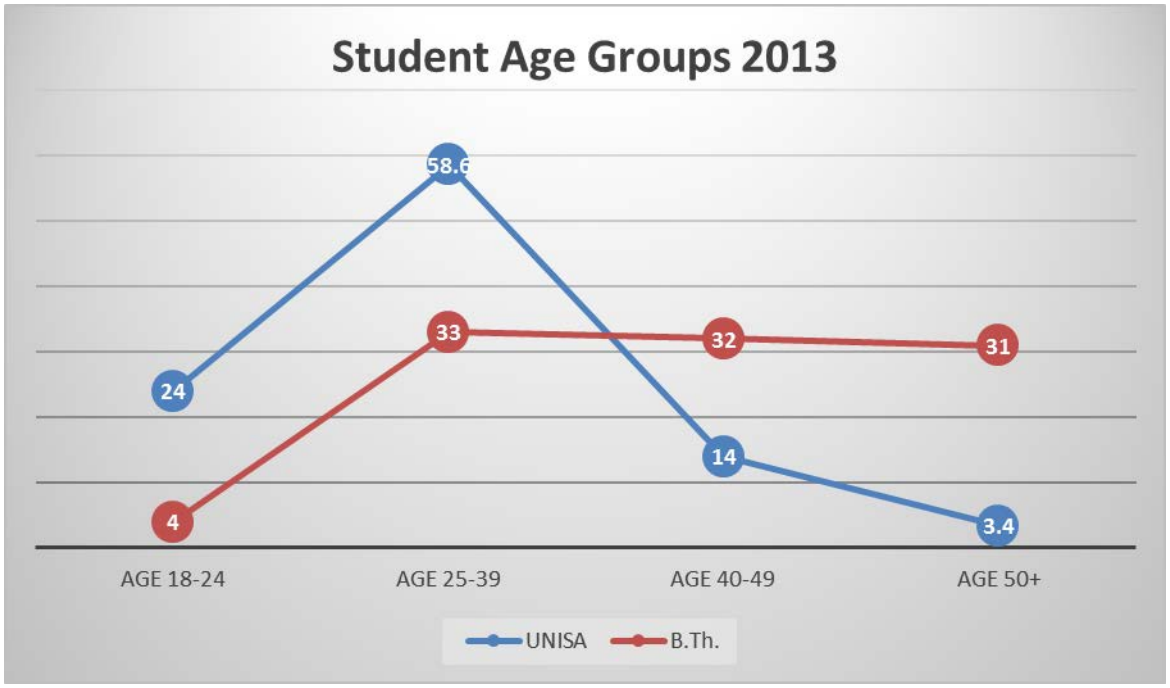

Figure 3.3: Percentages of age groups at Unisa

Source: Own Design

B.Th. students are in most cases part-time students and located all over Southern Africa (Oliver, 2012). Although a number of the students are pastors or pastors in training working in parishes and rural congregations, others are employed as health workers, in correctional services, other government departments or the private sector and not related to official faith structures or institutions (Oliver, 2012). The majority of the students are, however, engaged with congregational work and they want to gain knowledge and skills to become more effective in their calling as teachers, elders or deacons, counsellors, or voluntary workers.

The B.Th. programme is a general qualification accredited by most Christian denominations in South Africa as an appropriate first degree in Theology. Students from more than 60 different denominations are enrolled for the degree (Oliver, 2012) and a large number of the students are members of African Initiated Churches (AIC).

3.5.1.2 Student diversity

The blended learning approach (see Section 1.2.1.3) enables educators to use all four learning styles (see Section 1.4.9) when designing material for the B.Th. programme. Anderson (2003, p. 1) admits that it is unlikely to find a "perfect mix", but educators should aim at a balance between independent study and interactive and collaborative learning (Stewart, Harlow, & DeBacco, 2011).

The curriculum for the second year module, used in this investigation, is founded upon the R2D2 model of Bonk and Zhang (2006) that uses the four basic types of learners (see Appendix B, Week 1: Content) to develop a tool to "integrate various learning activities with appropriate technologies for effective online learning" (Bonk & Zhang, 2006, p. 250). The R2D2 model was chosen because of its ability to address the diverse needs of students in the blended education environment. This model is intended as a problem solving wheel that represents all the phases of learning and learning styles (Kolb, 1984) and can guide all types of student preferences (McCarthy, 1987). It also helps educators to focus on the diverse needs of students and the large range of opportunities that can be explored to present material in creative ways and get students involved in the learning process to implement what they have learned in their everyday lives. Students can be informed and assisted about their unique study practices which could help them to successfully develop into life-long learners. The model also allows for educators to reflect on their teaching and assessment practices (Bonk, 2010).

Student diversity is, however, not limited to learning styles. In the network society, students need to work in collaboration with each other and contribute to knowledge creation. To cater for this, all aspects of blended learning (see Section 1.2.1.3) must be taken into account as the composition will differ for each individual student. Technology can help to bridge the gaps in space and time, add choices regarding the use of media and expand the possibilities for active learning. Educators can use technology effectively to shorten the turnaround time on questions, problems and comments. Educators can also use technology to identify and assist students of different competency levels. Students who are in need of basic skills development such as language competency or digital literacy skills can be referred to student support programmes. Student diversity is closely linked to their digital competencies, which will be discussed next.

3.5.1.3 Students and technology

The issues about access to information and communication technology and the students' abilities to use these technologies are strongly contested issues at Unisa. Liebenberg, Chetty and Prinsloo (2012) investigated Unisa students' access to technology and their capabilities in using the technology within the discourse of the so-called "digital divide". The conclusion is drawn that this term cannot be linked to a simplistic understanding of these issues and that the level of access and capabilities among students are indeed varied and complex. There is no neat distinction between "haves" and "have-nots" when it comes to technology.

Prospective students to the *World Christianity and Ecumenism* module are informed when they apply for admission that they would need to have basic digital literacy skills while access to the internet is a recommendation. Although nearly 90% of all B.Th. students use cell phones, less than 50% have regular internet access (Oliver, 2012). Unisa provides access through regional centres as well as internet cafes and community centres. Unisa also introduced various "e-solutions" (on the *myUnisa* website), such as more affordable 3G, laptops, tablets and other devices at discounted prices to assist students to gain access to technology. Currently there is no data available to establish the impact of these measures and it seems as if availability of affordable and convenient access to technology will remain a major stumbling block in the near future.

The focus on student-centeredness is the first and most important aspect of the *SECTIONS* evaluation model. In line with the university policies (see Section 1.2.2), educators aim to ensure that through proper student-centered education, students are able to succeed. The second aspect of the *SECTIONS* model is also linked to the students, because it focuses on the level of ease with which the tools can be operated as well as the level of reliability of the tools.

3.5.2 Ease of use and reliability (*SECTIONS*)

The focus shifts to the assessment tools that are used to determine student success. The chosen assessment tools should in general be easy to use and novice educators and students should be able to work with most of them within twenty minutes, which is in accordance with general requirements (Bates & Poole, 2003). Applications and tools that can be used in the educational system generally do not require extensive technical knowledge and are usually user-friendly. Most tools also provide help and training information. A large number of technology-based tools that can be used for assessment are not primary developed for use in the educational system, but they can be tested and evaluated to determine if they are fit for this purpose. Although it is recommended that both synchronous and asynchronous features should be used to ensure the best student support (Pullen & Snow, 2007), Unisa currently only uses asynchronous options. This choice is supported by the fact that it is difficult to justify costs and logistics, but constant new developments could hopefully change this in the near future**.**

Technical reliability and stability present a constant problem in South Africa and a number of other African countries. Breakdowns in electricity supply (called load shedding), cable theft, slow internet speed and high costs for basic services are only a few of the many problems

that constantly frustrate internet users. This is linked to the next issue under discussion, namely that of costs.

3.5.3 Costs (*SECTIONS*)

The iron triangle of access, costs and quality (Daniel, Kanwar, & Uvalic-Trumbic, 2009) still bars effective education from empowering masses. Bates and Poole (2003) identify individual items and drivers of costs. Individual costs include the license for use and copyright clearance and permission as well as printing costs, the cost of purchasing or licensing equipment or software, as well as salaries of developers and subject specialists. Fortunately there are an ever increasing number of tools available to the educational sector which could be used without any licensing or copyright costs to educators or students. Devices and access to these tools through the internet, however, do come with a heavy price tag in most countries on the African continent.

Drivers of costs include the production and delivery of material, which will be influenced by the number of students and the mode of instruction (Bates & Poole, 2003). Using technology, the aspect of production costs could be reduced significantly when it comes to assessment with no need to print and distribute examination papers or hire examination venues. Students also benefit from the fact that they do not have to travel to or arrange for accommodation near examination venues. The use of technology can help to reduce costs to both service providers and stakeholders.

The next important heading of the *SECTIONS* model is that of teaching and learning and this aspect is linked to the next heading of interactivity as well.

3.5.4 Teaching and learning (*SECTIONS*)

Unisa is an Open Distance institute that uses a blended learning approach, based on the community of learning principle of providing a social, cognitive and a teaching presence (McKerlich, Riss, Anderson, & Eastman, 2011) striving towards providing effective education. Flexibility is extremely important and ensures that the geographical gap between the students and the educators, between students and their peers and students and the institution could be effectively narrowed or bridged. Through using academagogy when designing material and constructing courses, educators ensure that the needs of stakeholders are catered for, a balanced blend can be produced and students have choices regarding the use of technology in all three aspects of effective education (teaching, learning

and assessment), while the most appropriate styles, assessment methods and ways of presenting content are chosen for each learning experience and activity.

3.5.5 Interactivity (*SECTIONS*)

"University education should go beyond content and include engagement with others to develop personal understanding" (Anderson, 2003, p. 131). Therefore, learning needs to be an active process. Technology provides opportunities for interaction on all levels. Students have ample opportunities for co-operation; practicing and exercising skills and liaising with others in creative ways to construct knowledge. Educators can provide intensive feedback and feed-forward guidance to individual students.

The focus of the headings now moves towards more general aspects. First the discussion includes institutional matters and then moves to the uniqueness and newness of the tools and the speed with which these tools enable educators and students to produce and present their work and input.

3.5.6 Organisational issues (*SECTIONS*)

Unisa provides appropriate organisational support such as the support services of the Directorate of Curriculum and Learning Development (DCLD) as well as the services of the Department of Information and Communication Technology (ICT). Currently the university does not officially support social media as educational tools due to security risks. There are, however, a number of tools available on the *myUnisa* (SAKAI-based) learning management system (LMS) of the university that can be helpful to educators wishing to incorporate technology in their teaching activities. Unisa uses the SAKAI platform for the LMS, which is Java-structured and has been in operation since 2005. Students do not pay for this service. Changes in some restrictive policies such as not allowing certain tools (such as Skype) to be used could enhance and expand the use of technology in aiding fast and efficient services to students. This investigation does not focus on the university LMS but on tools available in the public domain.

3.5.7 Novelty (*SECTIONS*)

Educators must keep in mind that the latest technology-driven tools are often not tested and it does happen that these tools do not perform as they should and could be recalled or discontinued. It is therefore better to use beta versions of existing technology than to experiment with untested technologies which could frustrate both educators and students if it does not work properly and efficiently. Novelty is not a really important issue, but both

students and educators like to know that they are using technology to support their educational goals that is compatible with the world outside the university environment.

3.5.8 Speed (*SECTIONS*)

Modules can be mounted quickly with the help of technology and it is much easier to change or update content on a website than in a printed text (McGreal & Elliott, 2008). Delivery of material is extensively enhanced while "just in time" content and information can easily and efficiently be distributed with the help of technology.

Technology can be used to assist educators with assessment. It is important to evaluate the assessment tools before implementing them into the educational system in order to establish their compatibility and effectiveness.

From this general discussion on the *SECTIONS* framework, the focus now shifts to the actual analysis of the individual assessment tools. Each tool needs to be individually evaluated to determine if it could be used effectively as an alternative assessment method in the blended learning ODL environment.

3.6 EVALUATION OF INDIVIDUAL TOOLS

Before moving to the actual evaluation of each of the tools, a few notes provide an explanation of how to read the actual evaluation. The response key explains how the evaluation table is constructed in order to help understanding of the information provided.

3.6.1 Response key to the document analysis

Each of the ten identified tools are analysed individually according to the framework of the *SECTIONS* model. Each tool is introduced with a short description, followed by an indication of the link between the tool and the learning activity (see Section 3.3) that will be evaluated with the help of the specific tool. The analysis of each tool is concluded with some remarks on strong points, recommendations and areas of consideration or concern.

In line with the intention of the *SECTIONS* framework to be expanded to fit the course design (see Section 2.5.1), two *SECTIONS* of the checklist were expanded to accommodate additional information that the researcher and the group of inter-raters deemed necessary. Under the first heading of "Students" the aspects of effective education, different learning styles, digital literacy and a few general questions are added. More detailed analysis is also

prepared under the "Teaching and learning" heading where aspects of blended learning and Bloom's taxonomy are included.

Each question is answered by choosing one of the options (Yes or No) and specific observations are added in the last column where needed.

The levels of importance relate to the key or core issues of the module as stated in the module purpose, learning outcomes and content:

High	Medium	Low
Linked to the purpose and learning outcomes of the module and the key assessment areas. These aspects are very important to serve as evidence that the student mastered the key concepts, knowledge and skill to complete the module successfully.	Skills or knowledge supporting the general aim of the module. These aspects are important for the success of the student and are linked to skills and knowledge that the students must obtain to demonstrate their competency.	Not necessary to complete the module successfully. These include support or additional knowledge and skills not directly linked to the module content.

3.6.2 Edublog (www.edublog.com)

A blog is a personal website with its own URL in the form of an online journal, posted in reverse chronological order, written mainly by individuals to which readers (in the educational environment; students and educators) can respond. Blogs normally use RSS feeds to sort information and to alert users of new content. Edublog allows users to create and manage student and teacher blogs. A positive aspect of his website is the fact that videos, photos and podcasts can be included within this secure environment. The learning activity chosen for assessment with this tool is reflection (see Section 3.3).

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	
Can this assessment tool provide evidence that the student acquired skills?	✓		High	
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	
Does this assessment tool allow the student to recognise and monitor his/her own progress?	✓		High	Most important goal for this assessment

Evaluation questions	Yes	No	Level of importance	Things to consider
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant aural learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?	✓		High	
Can this tool enhance the digital literacy of collaboration?	✓		High	
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?		✓	Low	
Are students able to show their work via a web link?	✓		Low	
Is this tool subjected to internet or other restrictions?	✓		Low	

Evaluation questions	Yes	No	Level of importance	Things to consider
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?	✓		High	
Does this tool provide students with sufficient independent practice opportunities?	✓		Medium	
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	
Teaching and learning				
Blended learning				
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?		✓	Low	
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to create original material?	✓		Medium	
Can this tool be used to assess critical thinking?	✓		High	
General				

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?	✓		High	
Does this tool allow educators to provide efficient feed-forward support?	✓		High	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?	✓		High	
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?	✓		High	
Does this tool support interaction between students and educators?	✓		High	
Does this tool allow for sharing and collaboration?	✓		High	
Will the students' work be in the public domain?	✓		Low	Students must be cautioned about this
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				

Evaluation questions	Yes	No	Level of importance	Things to consider
Can educators make quick and easy adjustments or corrections using this tool?	✓		High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?	✓		High	
Will the use of this tool enable educators and students to save time?		✓	Low	

3.6.2.1 Conclusion and recommendations

Edublog is dedicated to education and the benefits of using a blog as an alternative assessment tool in Open Distance education are numerous. This tool is free, easy to set up and operate and each page has its own URL, secure for an educational environment. Learning can take place independent of time and place. Content can be updated frequently, and the use of the tool encourage creativity and motivate students to stay active for the duration of the semester. Students are able to develop and refine higher order thinking skills, problem solving skills, literacy skills and communication skills through the use of this tool. The tool also supports all learning styles. The postings appear in reverse chronological order, enabling educators to track progress and development in thinking, insight, knowledge and skills. Educators can also access students' work in order to timely identify students who need extra support. The tool encourages peer-learning. Blogs are student-centered, cover a wide variety of content and media and provide ample opportunities for reflection which is the main goal of this learning opportunity.

The following aspects should be kept in mind if this tool is used for assessment purposes: Educators must make it clear to students what the aim of the blog is and what features will be used. Educators need to ensure that students know what reflection should entail. The Bloom's taxonomy on reflective learning developed by Peter Pappas (2010), could be a useful aid in this regard for both educators and students. A code of ethics and online safety should be established and all must adhere to it. Educators must visit and interact with the content on the class blog site regularly, which will increase workload and is time consuming. In modules with large student numbers, the students can work in groups to assess each other's work or tutors can assess groups of students.

3.6.3 Weebly (www.weebly.com)

Weebly for education is a free web-hosting service that allows the user to drag and drop content (including multimedia) into the module website. It includes a blog option and can

also be used for student portfolios. The learning activity linked to this method of assessment is also, like with Edublog, reflection (See Section 3.3).

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	
Can this assessment tool provide evidence that the student acquired skills?	✓		High	
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	
Does this assessment tool allow the student to recognise and monitor his/her own progress?	✓		High	Most important goal for this assessment
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant aural learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?	✓		High	
Can this tool enhance the digital literacy of collaboration?		✓	High	
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	
Are students able to show their work via a web link?	✓		Low	
Is this tool subjected to internet or other restrictions?	✓		Low	
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?	✓		High	
Does this tool provide students with sufficient independent practice opportunities?	✓		Medium	
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	
Teaching and learning				
Blended learning				
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool stimulate students to remember information?		✓	Low	
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?	✓		High	
Can this tool be used to create original material?	✓		Medium	
General				
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?	✓		High	
Does this tool allow educators to provide efficient feed-forward support?	✓		High	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?	✓		High	
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?	✓		High	
Does this tool support interaction between students and educators?	✓		High	
Does this tool allow for sharing and collaboration?		✓	High	
Will the students' work be in the public domain?		✓	Low	Private and public options are available
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	

Evaluation questions	Yes	No	Level of importance	Things to consider
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?	✓		High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?	✓		High	
Will the use of this tool enable educators and students to save time?	✓		Low	

3.6.3.1 Conclusion and recommendations

The tool is free, easy to set up and to operate. Learning can take place independent of time and place. It can be updated frequently, it encourages creativity and could motivate students to stay active during the semester because the page can be used for portfolio building. Students are able to develop and refine higher order thinking skills, problem solving skills, literacy skills and communication skills through the use of this tool. Educators can access students' work in order to timely identify students who need extra support. Personal web pages are student-centered, cover a wide variety of content and provide ample opportunities for reflection which is the main goal of this learning opportunity.

Weebly uses an easy to use drag and drop interface. Educators can create student accounts that can be moderated from a central dashboard, pages can be password protected and assignment forms can also be uploaded. Multimedia (including text, photo galleries, slideshows and videos), can be uploaded. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment.

The following aspects should be kept in mind if this tool is used for assessment purposes: Educators must make it clear to students what the aim of the webpage (including the blog) is and what features will be used. The normal Weebly pages are in the public domain and this must be stressed to both students and educators. Institutions must also provide guidelines and support to students and educators regarding postings and content in the public domain. A code of ethics and online safety should be established. Educators must visit and interact with the content regularly if this is used as a form of assessment. This could be labour intensive and time consuming. Weebly for education only allows 40 student accounts for free. Additional accounts can be bought. Blogs can add to workload and could be very time consuming. In modules with large student numbers this could pose problems and complicate rather than simplify assessment.

3.6.4 SurveyMonkey (www.surveyMonkey.com)

SurveyMonkey is an online questionnaire designing tool that can also be used in printed form. It allows users to design surveys and to collect and analyse responses from open or targeted audiences and provide researchers with statistical information on the surveys done. The learning activity chosen for assessment with this tool is research (see Section 3.3).

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	Most important goal for this assessment
Can this assessment tool provide evidence that the student acquired skills?	✓		High	
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	
Does this assessment tool allow the student to recognise and monitor his/her own progress?		✓	High	
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant aural learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	

Evaluation questions	Yes	No	Level of importance	Things to consider
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?		✓	High	
Can this tool enhance the digital literacy of collaboration?	✓		High	
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				
Can this tool contribute to building a positive identity and social presence?		✓	High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?		✓	High	
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	Customisation is an option
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	
Are students able to show their work via a web link?		✓	Low	
Is this tool subjected to internet or other restrictions?	✓		Low	Printable also
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?		✓	High	

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool provide students with sufficient independent practice opportunities?	✓		Medium	
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	Premium options are available
Teaching and learning				
Blended learning				
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?		✓	Low	
Does this tool help students to show that they understand the information?		✓	High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?	✓		High	
Can this tool be used to create original material?	✓		Medium	
General				
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?		✓	High	
Does this tool allow educators to provide efficient feed-forward support?		✓	High	
Can this tool be used to demonstrate the students'	✓		High	

Evaluation questions	Yes	No	Level of importance	Things to consider
knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?				
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?		✓	High	
Does this tool support interaction between students and educators?		✓	High	
Evaluation questions	**Yes**	**No**	**Level of importance**	**Things to consider**
Does this tool allow for sharing and collaboration?		✓	High	
Will the students' work be in the public domain?		✓	Low	
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	
Is the use of this tool in line with the university policies?		✓	High	Provided that ethical clearance is obtained
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?	✓		High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?	✓		High	
Will the use of this tool enable educators and students to save time?	✓		Low	

3.6.4.1 Conclusion and recommendations

The tool is easy to set up and to operate. There are free and premium options available. It is an essential tool for research and the templates and survey questions provided could save researchers time in preparing research questionnaires while the customisation options caters for creativity and an individualist touch. Researchers are also able to use the statistical information provided from the surveys. Research can be done independent of time and place and surveys can be sent to a selected or open audience. Surveys can also be printed which open this method of research to a much wider audience. Surveys can be updated easily and quickly if needed. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment.

The following aspects should be kept in mind if this tool is used for assessment purposes: A code of ethics and online safety should be established. Both students and educators must adhere to all ethical guide lines of the institution and ethical clearance must be obtained before any research commence. Ethical clearance should be obtained from all applicable stakeholders before any research is conducted. It is extremely important to ensure that there are no mistakes that would prevent the survey from correct functioning before research comments. Students should be advised to test the survey before implementing it and also to provide contact details for users if they encounter problems or limited options. The free option of the tool has limited options and more complex surveys could require a payment option of the tool.

3.6.5 Diigo (www.diigo.com)

Diigo is a social bookmarking research and knowledge sharing tool that allows users to make personal notes and highlight text on web pages, create lists and write annotated reviews. The learning activity chosen for assessment with this tool is research (see Section 3.3).

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	Most important goal for this assessment
Can this assessment tool provide evidence that the student acquired skills?	✓		High	
Can this assessment tool provide evidence that the student acquired values?		✓	High	

Evaluation questions	Yes	No	Level of importance	Things to consider
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	
Does this assessment tool allow the student to recognise and monitor his/her own progress?	✓		High	
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant aural learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?	✓		High	
Can this tool enhance the digital literacy of collaboration?	✓		High	
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	
Does this tool provide the student with choices to use it in a personal and unique way?		✓	Medium	
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	

Evaluation questions	Yes	No	Level of importance	Things to consider
Are students able to show their work via a web link?	✓		Low	
Is this tool subjected to internet or other restrictions?	✓		Low	
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?		✓	High	
Does this tool provide students with sufficient independent practice opportunities?		✓	Medium	
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	Premium options are available
Teaching and learning				
Blended learning				
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?		✓	High	One of the primary aims of research
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?		✓	High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?		✓	High	

Evaluation questions	Yes	No	Level of importance	Things to consider
Can this tool be used to create original material?	✓		Medium	
General				
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?		✓	High	
Does this tool allow educators to provide efficient feed-forward support?		✓	High	
Does this tool develop skills that students can use in non-academic environments?	✓		Medium	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?	✓		High	
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?	✓		High	
Does this tool support interaction between students and educators?		✓	High	
Does this tool allow for sharing and collaboration?	✓		High	
Will the students' work be in the public domain?	✓		Low	Advise students accordingly
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students? (do new things)	✓		Medium	

Evaluation questions	Yes	No	Level of importance	Things to consider
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?		✓	High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?		✓	High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?	✓		High	
Will the use of this tool enable educators and students to save time?	✓		High	Important to be able to find research and notes for study purposes

3.6.5.1 Conclusion and recommendations

The tool is easy to set up and to operate. There are free and premium options available. It is an essential tool for research and could save researchers lots of time if properly managed and tagged as searches can be conducted in various ways to retrieve information. Research can be done independent of time and place. Research can be shared and collaboratetive learning is promoted, which is the main advantage of using this tool. Diigo promotes effective referencing and summarising of important information. Searchers can be done in various ways to assist researchers locating and retrieving information. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment.

The following aspects should be kept in mind if this tool is used for assessment purposes: Online safety should always be kept in mind when using research tools. This is an online tool and educators and students must use the tool responsibly and according to ethical guidelines. This is also an optional technological tool – most researchers are used to do these tasks manually but it could be time saving to all when done online and able to share.

3.6.6 Wordle (www.wordle.net)

Wordle is a tool that generates word clouds from provided text, using Java. Users can demonstrate their creativity with the use of different fonts, layouts, colour schemes and images. The learning activity chosen for assessment using this tool is construction (see

Section 3.3). Wordle can be used in combination with blogs, presentations, portfolio's, and much more.

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	
Can this assessment tool provide evidence that the student acquired skills?	✓		High	
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	Most important goal for this assessment
Does this assessment tool allow the student to recognise and monitor his/her own progress?	✓		High	
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant aural learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?		✓	High	
Can this tool enhance the digital literacy of collaboration?		✓	High	
Can this tool enhance the digital literacy of network awareness?		✓	High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?		✓	High	
General				
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	
Are students able to show their work via a web link?	✓		Low	
Is this tool subjected to internet or other restrictions?	✓		Low	
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?		✓	High	
Does this tool provide students with sufficient independent practice opportunities?	✓		Medium	
Does this tool support the development of increased student responsibility?		✓	High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	
Teaching and learning				
Blended learning				
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	

Evaluation questions	Yes	No	Level of importance	Things to consider
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?	✓		Low	
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?	✓		High	
Can this tool be used to create original material?	✓		Medium	
General				
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?	✓		High	
Does this tool allow educators to provide efficient feed-forward support?	✓		High	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?	✓		High	
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?		✓	High	
Does this tool support interaction between students and educators?		✓	High	
Does this tool allow for sharing and collaboration?	✓		High	
Will the students' work be in the public domain?	✓		Low	Advise students accordingly
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	

Evaluation questions	Yes	No	Level of importance	Things to consider
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?		✓	High	
Can students quickly and easily update or correct information using this tool?		✓	High	
Is it possible to respond quickly using this tool?		✓	High	
Will the use of this tool enable educators and students to save time?		✓	Low	

3.6.6.1 Conclusion and recommendations

The tool is free and easy to set up. Learning can take place independent of time and place. It can be used to summarise and prioritise research results or convert content to visual data, to be included in portfolio's, presentations or blogs. This tool can be used for reflection, and revision. This is a good example of assessment as a learning event. It encourages creativity and could motivate students to develop and refine higher order thinking skills, problem solving skills, literacy skills and communication skills. Educators can assess students' work in order to timely identify students who need extra support. This tool enables students to construct unique content which is the main goal of this learning activity. Peer evaluation could work well with this type of assessment. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment. As is the case with all the tested online tools, feedback could be provided almost immediately which could improve results as students tend to respond positively on immediate feedback.

The following aspects should be kept in mind if this tool is used for assessment purposes: A code of ethics and online safety should be established and adhere to as the creations using

this tool is in the public domain and educators and students must be aware of the implications of using the tool: Everything done using this tool will be in the public domain. The interface is not very easy to use and require time and dedication and practise, which could be time consuming and frustrating. It could also be expensive to students who have to pay for internet connectivity while working and practising with this tool.

3.6.7 Glogster edu (www.edu.glogster.com)

Glogster EDU is a free online educational service that can be used to create interactive "posters" (including research results and learning activities), composed of text, graphics, sounds and video, with a commenting facility for peer review and assessment. The learning activity chosen for this assessment tool is also construction (see Section 3.3).

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	
Can this assessment tool provide evidence that the student acquired skills?	✓		High	
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	Most important goal for this assessment
Does this assessment tool allow the student to recognise and monitor his/her own progress?	✓		High	
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant aural learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?	✓		High	
Can this tool enhance the digital literacy of collaboration?	✓		High	

Evaluation questions	Yes	No	Level of importance	Things to consider
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	
Are students able to show their work via a web link?	✓		Low	
Is this tool subjected to internet or other restrictions?	✓		Low	
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?	✓		High	
Does this tool provide students with sufficient independent practice opportunities?	✓		Medium	
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	Free but premium service provide

Evaluation questions	Yes	No	Level of importance	Things to consider
				privacy and security
Can this tool be used without paying a licensing fee?		✓	High	
Teaching and learning				
Blended learning				
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?	✓		Low	
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?	✓		High	
Can this tool be used to create original material?	✓		Medium	
General				
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?	✓		High	
Does this tool allow educators to provide efficient feed-forward support?	✓		High	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?	✓		High	
Does this tool promote active learning?	✓		High	
Interactivity				

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool support interaction between students?	✓		High	
Does this tool support interaction between students and educators?	✓		High	
Does this tool allow for sharing and collaboration?	✓		High	
Will the students' work be in the public domain?	✓		Low	Advise students accordingly
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?	✓		High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?	✓		High	
Will the use of this tool enable educators and students to save time?		✓	Low	

3.6.7.1 Conclusion and recommendations

The tool is free, but the education dedicated service to protect privacy and provide security is not free. Learning can take place independent of time and place. It can be updated frequently, encourage creativity and motivate students to stay active for the duration of the course. Students are able to develop and refine higher order thinking skills, problem solving skills, literacy skills and communication skills through the use of this tool. Educators can assess students' work immediately and provide feedback and also timely identify students who need extra support. The tool encourages peer-learning and could be used effectively in

large groups and for group work. Glogs are student-centered, cover a wide variety of content and provide ample opportunities for creative construction of content which is the main goal of this learning activity. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment.

The following aspects should be kept in mind if this tool is used for assessment purposes: A code of ethics and online safety should be established especially when the free option is used because all content will be in the public domain. Only the premium service provides a secure and private option. If educators decide that this tool is workable, their institutions should consider paying the extra costs for secure and private assessment.

3.6.8 Wikispaces (www.wikispaces.com)

Wikispaces is a wiki hosting platform providing users with expandable collection of interlinked web pages, a hypertext system for storing and modifying information, a data base with visual page editing and discussion areas for collaborative working and active learning opportunities. The learning activity chosen for assessment is activity (see Section 3.3).

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	
Can this assessment tool provide evidence that the student acquired skills?	✓		High	
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	Most important goal for this assessment
Does this assessment tool allow the student to recognise and monitor his/her own progress?	✓		High	
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant aural learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				

Evaluation questions	Yes	No	Level of importance	Things to consider
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?	✓		High	
Can this tool enhance the digital literacy of collaboration?	✓		High	
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	
Are students able to show their work via a web link?	✓		Low	
Is this tool subjected to internet or other restrictions?	✓		Low	
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	Difficult to navigate on a mobile phone
Does this tool support regular and detailed feedback options?	✓		High	
Does this tool provide students with sufficient	✓		Medium	

Evaluation questions	Yes	No	Level of importance	Things to consider
independent practice opportunities?				
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	
Teaching and learning				
Blended learning				
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?		✓	Low	
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?	✓		High	
Can this tool be used to create original material?	✓		Medium	
General				
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?	✓		High	
Does this tool allow educators to provide efficient feed-forward support?	✓		High	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as	✓		High	

Evaluation questions	Yes	No	Level of importance	Things to consider
mastery of content, historical literacy, communication skills)?				
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?	✓		High	
Does this tool support interaction between students and educators?	✓		High	
Does this tool allow for sharing and collaboration?	✓		High	
Will the students' work be in the public domain?	✓		Low	Advise students accordingly
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?	✓		High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?	✓		High	
Will the use of this tool enable educators and students to save time?	✓		Low	

3.6.8.1 Conclusion and recommendations

The tool is free, but if more privacy and security is needed, the premium option is recommended. Learning can take place independent of time and place. It can be updated

frequently, encourage creativity and motivate students to stay active during the course. Students are able to develop and refine higher order thinking skills, problem solving skills, literacy skills and communication skills through the use of this tool. Educators can assess students' work in order to timely identify students who need extra support. The tool encourages peer-learning and collaboration. Wikis cover a wide variety of content and provide ample opportunities for creative and active learning which are the main goals of this learning activity. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment. Most students are familiar with similar tools such as Wikipedia and this tool should be easy to incorporate into assessment procedures. The LMS of most universities also have wiki options that could be used but these are only available to registered students in specific courses and year groups and cannot be transferred or linked for use in portfolios to the public domain.

The following aspects should be kept in mind if this tool is used for assessment purposes: A code of ethics and online safety should be established as content will be in the public domain if the free option is used. This tool is not easy to operate using a mobile phone and can be time consuming and frustrating. Students should be advised about the restricted use on some mobile devices and advise to choose other device options or other media, in line with alternative assessment that should always provide students with options.

3.6.9 YouTube (www.youtube.com)

YouTube is a free video-sharing site where users can upload, view and share videos. It also has an educational branch that could be used for teaching and learning. The learning activity associated with this assessment tool is activity (see Section 3.3).

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	
Can this assessment tool provide evidence that the student acquired skills?	✓		High	
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	Most important goal for this assessment
Does this assessment tool allow the student to recognise and monitor his/her own progress?	✓		High	

Evaluation questions	Yes	No	Level of importance	Things to consider
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant aural learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?	✓		High	
Can this tool enhance the digital literacy of collaboration?	✓		High	
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	
Are students able to show their work via a web link?	✓		Low	
Is this tool subjected to internet or other restrictions?	✓		Low	

Evaluation questions	Yes	No	Level of importance	Things to consider
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?		✓	High	
Does this tool provide students with sufficient independent practice opportunities?	✓		Medium	
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	
Teaching and learning				
Blended learning				
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?	✓		Low	
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?	✓		High	
Can this tool be used to create original material?	✓		Medium	
General				

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?		✓	High	
Does this tool allow educators to provide efficient feed-forward support?	✓		High	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?	✓		High	
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?	✓		High	
Does this tool support interaction between students and educators?		✓	High	
Does this tool allow for sharing and collaboration?	✓		High	
Will the students' work be in the public domain?	✓		Low	YouTube has intellectual property rights on all that is placed on YouTube – advise students accordingly
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?	✓		High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?		✓	High	
Will the use of this tool enable educators and students to save time?		✓	Low	

3.6.9.1 Conclusion and recommendations

The tool is free and easy to operate. There is also a dedicated educational option. Learning can take place independent of time and place. It encourages creativity and motivates students to stay active. Students are able to demonstrate the development and refinement of higher order thinking skills, problem solving skills, literacy skills and communication skills through the use of this tool. The tool encourages peer-learning and peer assessment options. YouTube can include a wide variety of content and provide ample opportunities for creative and active learning which are the main goals of this learning activity. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment. YouTube is rated the number 2 learning tool for 2015 (Hart, 2015). It seems as if students prefer watching and learning over reading and learning which makes this tool ideal for education purposes that focus on more than one learning style. Preparing and creating content to submit on YouTube can be very time consuming, frustrating and even expensive. Not all evidence of learning is suitable for uploading on YouTube and students should be advised accordingly. They can also be made aware of alternatives such as podcasts and other available tools which could be more appropriate for the task at hand.

The following aspects should be kept in mind if this tool is used for assessment purposes: A code of ethics and online safety should be established as all content is in the public domain. Educators should instruct students about the educational use of this tool as most students will only be familiar with its social uses. Students must be advised about the fact that YouTube own the copyrights to all that is placed on this tool. The implication for intellectual property rights are very important to note, both by educators and students, although when use for assessment purposes, this should not be a huge problem.

3.6.10 Coggle (http://coggle.it/)

Coggle is a freeware mind-mapping tool that produces hierarchically structured documents that can be personalised, downloaded, edited and shared. The learning activity chosen for this assessment tool is cognition (see Section 3.3).

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	
Can this assessment tool provide evidence that the student acquired skills?	✓		High	The main goal of this activity is to develop higher order thinking skills
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	
Does this assessment tool allow the student to recognise and monitor his/her own progress?	✓		High	
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant aural learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?	✓		High	
Can this tool enhance the digital literacy of collaboration?	✓		High	
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				

Evaluation questions	Yes	No	Level of importance	Things to consider
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?	✓		Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	
Are students able to show their work via a web link?	✓		Low	
Is this tool subjected to internet or other restrictions?	✓		Low	
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?	✓		High	
Does this tool provide students with sufficient independent practice opportunities?		✓	Medium	
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	
Teaching and learning				
Blended learning				

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?	✓		Low	
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?	✓		High	
Can this tool be used to create original material?	✓		Medium	
General				
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?		✓	High	
Does this tool allow educators to provide efficient feed-forward support?		✓	High	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?	✓		High	
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?	✓		High	
Does this tool support interaction between students and educators?	✓		High	
Does this tool allow for sharing and collaboration?	✓		High	
Will the students' work be in the public domain?	✓		Low	Advise students accordingly

Evaluation questions	Yes	No	Level of importance	Things to consider
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?	✓		High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?	✓		High	
Will the use of this tool enable educators and students to save time?	✓		Low	

3.6.10.1 Conclusion and recommendations

The tool is free and easy to operate. Learning can take place independent of time and place. It encourages collaboration between students and stimulates higher level thinking skills. Students are also able to develop and refine problem solving skills. Educators can easily assess students' work. The tool encourages peer-learning and sharing of knowledge and insight. Coggle provides ample opportunities for creative and active development of thinking skills which is the main goal of this learning activity. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment.

The following aspects should be kept in mind if this tool is used for assessment purposes: A code of ethics and online safety should be established. All the skills that are developed through the use of this tool can be done in other, not online, environments also. This tool is therefore nice to have, but not essential to learning, teaching and assessment.

3.6.11 Twitter (www.twitter.com)

Twitter is a free online social networking and micro-blogging tool that enables users to send and receive short multimedia messages. The learning activity linked with this tool for assessment is cognition (see Section 3.3). Although Twitter is known for its' social use, it is also a very popular educational tool.

Evaluation questions	Yes	No	Level of importance	Things to consider
Students				
Effective education (Blumberg, 2014)				
Can this assessment tool provide evidence that the student acquired knowledge?	✓		High	
Can this assessment tool provide evidence that the student acquired skills?	✓		High	The main goal of this activity is to develop higher order thinking skills
Can this assessment tool provide evidence that the student acquired values?	✓		High	
Can this assessment tool provide evidence that the student engaged in a learning event?	✓		High	
Does this assessment tool allow the student to recognise and monitor his/her own progress?		✓	High	
Learning styles (Fleming and Mills, 1997)				
Will students with a predominant visual learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant aural learning style use this as a primary learning tool?		✓	Low	
Will students with a predominant verbal learning style use this as a primary learning tool?	✓		Low	
Will students with a predominant physical learning style use this as a primary learning tool?		✓	Low	
Digital literacies (Rheingold, 2010)				
Can this tool enhance the digital literacy of attention?	✓		Medium	
Can this tool enhance the digital literacy of participation?	✓		High	
Can this tool enhance the digital literacy of collaboration?	✓		High	
Can this tool enhance the digital literacy of network awareness?	✓		High	
Can this tool enhance the digital literacy of critical consumption (trying to figure out what and who is trustworthy)?	✓		High	
General				

Evaluation questions	Yes	No	Level of importance	Things to consider
Can this tool contribute to building a positive identity and social presence?	✓		High	
Can this tool assist to bring about changes in student values, attitudes and behaviour?	✓		High	
Does this tool provide the student with choices to use it in a personal and unique way?	✓		Medium	
Does this tool promote competency?	✓		High	
Does this tool promote capacity?	✓		High	
Can the skills acquired with the use of this tool be used beyond the formal education system?	✓		High	
Are transferable skills being developed through the use of this assessment tool?		✓	Medium	
Ease of use and reliability				
Is this tool used outside of the educational sector?	✓		Low	
Are students able to show their work via a web link?		✓	Low	
Is this tool subjected to internet or other restrictions?	✓		Low	Connectivity to service providers
Is this tool user-friendly (easy to operate)?	✓		Low	
Are training options or help files available for this tool?	✓		High	
Is this tool well tested for use in education?	✓		High	Voted number 1 learning tool last 7 years (Hart, 2015)
Is this tool stable and reliable?	✓		High	
Can this tool be used on both computers and mobile phones?	✓		High	
Does this tool support regular and detailed feedback options?	✓		High	
Does this tool provide students with sufficient independent practice opportunities?		✓	Medium	
Does this tool support the development of increased student responsibility?	✓		High	
Costs				
Can students use this tool for free?		✓	High	
Can this tool be used without paying a licensing fee?		✓	High	
Teaching and learning				
Blended learning				

Evaluation questions	Yes	No	Level of importance	Things to consider
Does this tool allow educators and students to work anywhere?	✓		High	
Does this tool allow educators and students to work anytime?	✓		High	
Bloom's taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956)				
Does this tool stimulate students to remember information?		✓	Low	
Does this tool help students to show that they understand the information?	✓		High	
Can this tool provide evidence that students can apply what they have learned?	✓		High	
Does this tool allow students to analyse material?	✓		High	
Can this tool be used for evaluation of information?	✓		High	
Can this tool be used to assess critical thinking?	✓		High	
Can this tool be used to create original material?	✓		Medium	
General				
Does this tool allow students to link existing knowledge and skills with new knowledge and skills?	✓		High	
Can this tool be used for formative assessment purposes?	✓		High	
Can this tool be used for summative assessment purposes?	✓		Medium	
Does this tool allow educators to provide fast and efficient feedback?	✓		High	
Does this tool allow educators to provide efficient feed-forward support?	✓		High	
Can this tool be used to demonstrate the students' knowledge and skills regarding core issues (such as mastery of content, historical literacy, communication skills)?	✓		High	
Does this tool promote active learning?	✓		High	
Interactivity				
Does this tool support interaction between students?	✓		High	
Does this tool support interaction between students and educators?	✓		High	
Does this tool allow for sharing and collaboration?	✓		High	
Will the students' work be in the public domain?	✓		Low	Twitter has the right

Evaluation questions	Yes	No	Level of importance	Things to consider
				to use or sell **all** content – advise students accordingly
Organisational issues				
Is this tool linked to the university? (LMS)		✓	Low	
Is the use of this tool in line with the university policies?	✓		High	
Is there a way to retrieve material or information if this technology fails or is replaced?		✓	High	Advise students to keep a backup copy of all their work
Will students need to manage their own accounts?	✓		Low	
Novelty				
Can the use of this tool provide new learning experiences for the students (do new things)?	✓		Medium	
Are there examples of use of this tool in the educational context?	✓		Medium	
Does this tool provide opportunities to be creative and innovative?	✓		High	
Speed				
Can educators make quick and easy adjustments or corrections using this tool?	✓		High	
Can students quickly and easily update or correct information using this tool?	✓		High	
Is it possible to respond quickly using this tool?	✓		High	
Will the use of this tool enable educators and students to save time?	✓		Low	

3.6.11.1 Conclusion and recommendations

The tool is free and easy to operate. Learning can take place independent of time and place. It encourages collaboration, refines problem solving skills and could be used to stimulate higher level thinking skills. Educators can easily assess students' work. The tool encourages peer-learning and sharing of knowledge and insight. Students can use the knowledge and skills acquired from working with this tool outside the formal educational environment. Twitter is the top learning tool for the last seven years (Hart, 2015), but there should be a definite distinction made between learning and gathering information and students should be advised accordingly. Students can learn to make efficient summaries of content which can be used for assessment or revision.

The following aspects should be kept in mind if this tool is used for assessment purposes: A code of ethics and online safety should be established. Twitter has the right to use and sell all content (Delsack, 2012) and both educators and students must be advised accordingly as this may seriously influence intellectual property rights in educational environments. Even photos can be sold and the person uploading it loses all copyrights once it is placed on Twitter. The limited number of characters can also be problematic in educational environments as it could lead to misunderstandings and omission of important information.

3.6.12 Conclusions drawn from the document analysis

The analysis completed with the help of the *SECTIONS* framework showed that numerous tools can be used as alternative assessment methods. The tools were evaluated for use with specific learning activities in mind and not compared with each other. All the evaluated tools are student-centered and could enhance effective education. Most of the tools are free or have free educational options, but for secure and private options which is the ultimate choice for education, most tools charge a fee. They are easy to use and can also be operated from mobile phones. Wikispaces is the one exception, not workable on small devices such as mobile phones. All tools are not usable when working with large student numbers but peer assessment or tutors can help in this regard. The different tools offer options to focus on specific learning activities and learning outcomes and educators can assess individual skills, activities, progress and results of learning. Some of the tested tools such as Twitter and YouTube, rank very high on current lists of top educational tools (Hart, 2015). Alternative assessment tools speed up communication, are flexible, focus on the students' needs, and provide opportunities for interaction and active learning. In general, the tested tools can be used effectively even though students have varying learning styles and different levels of digital literacies.

Privacy, security, and copyrights are the main concerns for using alternative assessment methods and educators and students must ensure that they are up to date with policies and practices in this regard. Some tools, like Twitter and YouTube own the intellectual property copyrights of all uploaded content. The use of some of the tools, such as SurveyMonkey, could require ethical clearance (regarding the research done with the help of the tool and not regarding the tool itself) which should be obtained prior to use. Although these issues should not provide problems for assessment tasks, the educators and students must be aware of the implications of using these tools for educational purposes.

Implementing these tools to assess learning outcomes and activities, is time consuming. The development of these activities and setup of the assessment tasks and tools demand lots of

time and creativity from the developers and his should be clear to all members of curriculum development teams before the start of the project. These assessment tools work well for continuous assessment, but this type of assessment requires a hands-on approach from educators and tutors which can add to workload and time needed for each assessment task.

The purpose of the evaluation was to measure if technology-based assessment tools can assess specific learning activities and learning outcomes, linked to a higher education course. Although there are some reservations regarding the use of some of the tools or some aspects of the use of the tools, it is clear that these tools stand the test and can be implemented to replace the traditional assignments and exams.

The alternative assessment tools evaluated through document analysis above were implemented to change the assessment plan of a second year Theology module from traditional assessment to continuous technology-based assessment as part of a pilot project on alternative assessment. The last part of this chapter is a discussion of the results.

3.7 IMPLEMENTATION OF ALTERNATIVE ASSESSMENT TOOLS TO A MODULE IN THE ODL CONTEXT

3.7.1 Changing the assessment plan

Part of the second year module (*World Christianity and Ecumenism* – TIC2604) serves as an example of how the alternative assessment tools identified and tested with the help of the *SECTIONS* model could be implemented (see Appendix A). The module forms part of the B.Th. degree and is scheduled for recurriculating in 2017. Permission was granted to change the assessment plan of this module as part of the pilot project to move to alternative assessment methods in undergraduate modules. Ten tools identified and evaluated were used to alter the assessment plan of this module into continuous assessment.

Only the first half of the module (first six weeks of the thirteen week course) is included in this example (Appendix A) for the purpose of this study, it was sufficient to illustrate the possible use for all ten of the evaluated tools. Course material includes tutorial letters, a Study Guide, additional electronic sources and a dedicated support page on *myUnisa*, the learning management system of Unisa. Included in the first Tutorial Letter and Study Guide that students receive on registration is the work schedule (see Appendix A) to guide them through the continuous assessment procedure for the semester. This work schedule and

Tutorial Letter include all assessment tasks, due dates, guidelines, mark rubrics and choices and available options that students can use to complete the different assessment tasks.

Students are encouraged to be creative and make their own choices regarding their responses to the set assessment tasks. Small, focused assessment tasks and student choices are the main changes and also the main advantage points of moving to alternative assessment methods. Other positive changes include the options to assess specific parts of the curriculum in depth, providing fast feedback and allowing the students to be creative in their responses.

3.7.2 Implementing scaffolding

Students are not expected to transfer from one assessment mode to another without help. The value of unlearning and re-learning (McLoughlin & Lee, 2010) is demonstrated through the process of scaffolding (Rosenshine & Meister, 1992). The aim of scaffolding (see Figure 3.4) is to get students interested and motivated to move up through the levels from being dependent students to become interested students that start to explore for themselves. The next step is advancing the students to become actively involved in their studies and finally to help students to become self-directed, life-long learners, able to actively contribute to the expansion and development of knowledge. Figure 3.4 aims to demonstrate the upward development from dependent learners to self-direct learners by using scaffolding to support the development of knowledge.

Dependent students are guided regarding the move to alternative assessment with the help of scaffolding through adding the following components to the assessment strategy and including it in all material (the Study Guide, tutorial letters, additional resources and *myUnisa* web page):

- Explain to students what effective education entails and that the use of technology advances blended learning because teaching, learning and assessment can take place anywhere, anytime, through the use of multimedia and a choice of activities.
- Inform students that it is only the assessment method and tools that change, not the content of the module. They will not be assessed on their level of competency with the tools, but on the actual evidence that they provide regarding the course material and learning outcomes of the module. Continuous assessment is all about constant communication, monitoring, motivating and advising students. Educators are required to provide constant and detailed feedback and feed-forward information and

guidelines focused on individual performances. This can be done easily with Theology courses where student numbers are limited.

- Present the different (and to the student often new) assessment strategies in such a way that the initial information, detail and examples enable students to start exploring within an environment where they feel secure. Provide students with opportunities to correct mistakes and improve their performances before assigning marks.
- Increase student responsibility, choices and levels of flexibility as the module progresses.

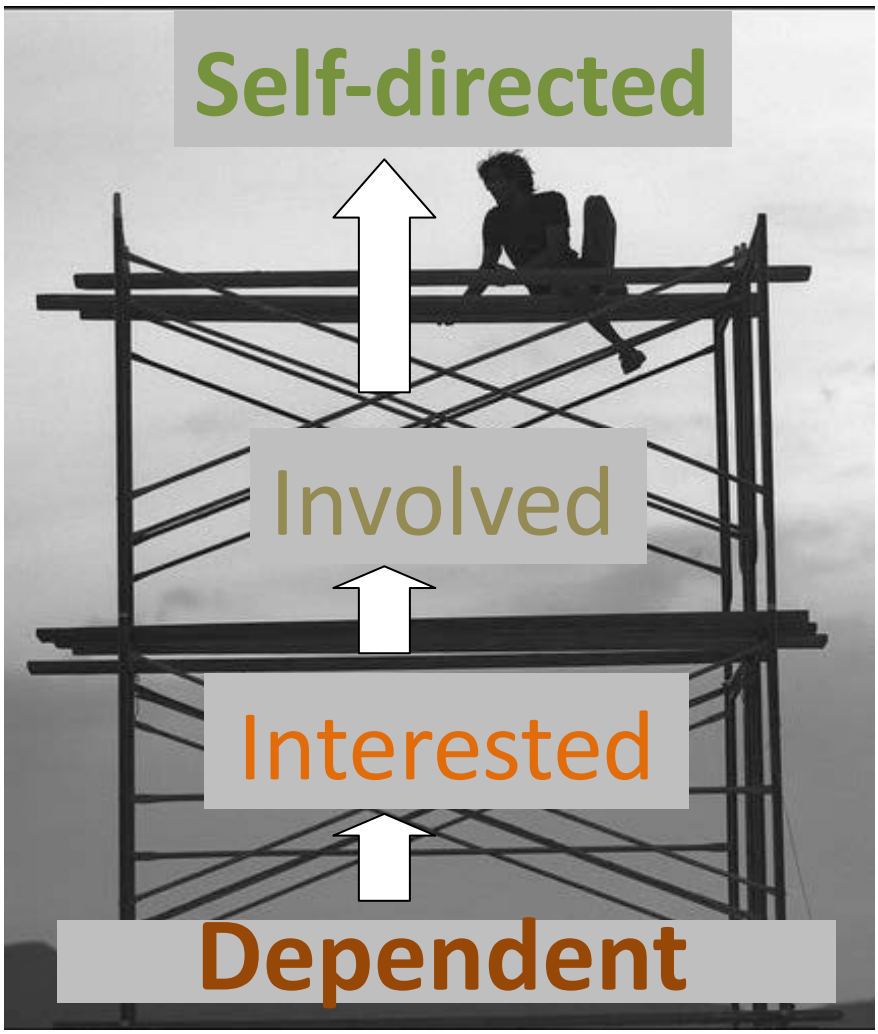

Figure 3.4: Scaffolding to develop dependent students into self-directed life-long learners

Source: Image: Johnson, M. (28 January 2014). *Scaffolding genius hour*. Retrieved from https://flippingmath.files.wordpress.com/2014/01/scaffolding.jpg

Labeling: Own design

3.7.3 Implementation of the assessed tools to the module

All assessment tasks in the module are linked to specific learning outcomes (see Sections 1.2.4 and 3.3). The assessment plan starts with a creative and constructive, student-centered task of creating an educational blog for reflective learning. Two examples are given to help students find a suitable educational freeware platform. Edublog and Weebly (see week 1 of work schedule – Appendix A) are also the two blogging tools that were evaluated and found suitable for use in higher education through the document analysis (see Sections 3.6.2 and 3.6.3). Students will use these tools for the duration of the module to reflect on and evaluate their learning and development curve and can extent its use outside and after the completion of the module.

In order to complete this module successfully, students must conduct a research project in their local communities. Enabling them to construct and use research tools such as surveys, one of the alternative assessment tools that students have to use as part of their portfolio of evidence is SurveyMonkey (see week 2 of work schedule – Appendix A and Section 3.6.4). Although the use of this tool is focused on the content of the module, students will soon learn that they can also use the tool to construct their own research surveys to conduct independent research. Research is not limited to action research and students need to learn early in their academic career how to use and cite sources correctly. Diigo (see week 1 of work schedule – Appendix A and Section 3.6.5) is a useful tool that enables students to master the art of referencing, bookmarking and other basic research skills.

In the network society, students need to be able to construct meaning and become active contributors to the knowledge society. Coggle, Wordle (see weeks 2,3 of the work schedule – Appendix A and Sections 3.6.10 and 3.6.6) and Glogster (see weeks 4,6 of the work schedule – Appendix A and Section 3.6.7) enable students to create summaries and mind maps of important content such as core concepts and key content of the module in unique and creative ways that will also help them to memorise and internalise the concepts or use it in constructive and creative ways. These tools assist students to envision both detail and overviews (or big picture views) of the key issues of the module.

Students are able to collaborate and interact with other students as well as the educators through using tools such as Wikispaces (see week 4 of work schedule – Appendix A and Section 3.6.8) and Twitter (see week 5 of work schedule – Appendix A and Section 3.6.11) enables students to take note of the latest research and opinions of experts in the field of World Christianity and Ecumenism. Twitter also enables students to network with

organisations linked to the core issues described in the module as well as scholars and the international academic community that are experts on issues related to the module content. YouTube (see Section 3.6.9) is an excellent tool through which students can provide evidence of active learning activities (see week 6 of work schedule – Appendix A). Students are cautioned that intellectual property rights and ownership of content such as photos are transferred when using tools such as Twitter and YouTube. Students must therefore be selective regarding the content that they place on these platforms.

The use of alternative assessment methods in this module ensures that students can be actively involved for the full course duration due to the implementation of continuous assessment tasks. These tasks open up opportunities for the students to communicate with the educators and their fellow students on a regular basis. The focus on small chunks for assessment enables them to stay motivated and keep track of their own progress as well as taking part in peer-learning and team work. Logistic issues such as examination venues can be completely eliminated. Barriers such as time and geographical distances can be overcome through the use of technology driven assessment tools.

3.8 SUMMARY

Unisa is committed to focus on student-centeredness through blended learning and the use of appropriate information and communication technology. Alternative assessment can be used to bridge the gaps (time and space) that could make it difficult for students to learn successfully in a blended ODL environment.

The alternative assessment tools that were tested, using the *SECTIONS* model, were used in a work schedule for a second year Theology module at Unisa to restructure the module from the traditional (two written essay-type assignments and one written essay-type venue-based examination) to alternative, continuous assessment. In line with the core function of alternative assessment, students are presented with choices regarding their responses to the given assessment tasks.

Chapter four, the final chapter of the study, includes the conclusions and recommendations drawn from this investigation. The conclusions can be generalised to serve as guidelines for other modules in Theology and possibly also for other undergraduate modules at Unisa as an ODL, blended learning and student-centered higher education institution.

CHAPTER 4 CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

Chapter three documented the results of the document analysis prepared on the identified technology-based tools that could be used for alternative assessment in a blended learning environment to enhance effective higher education. It also refers to how these tools can be applied in an actual module to ensure that alternative, continuous assessment provides students with choices as well as opportunities to develop digital skills and flexibility.

Chapter four provides a general overview and conclusion of the study. First the literature review and document analysis will be summarised, followed by a synthesis of the research results. In answering the research questions, a number of conclusions are drawn. Limitations of the study are highlighted, followed by recommendations and suggestions for further research and a final word on this investigation.

4.2 SUMMARY OF THE LITERATURE REVIEW

The study is based on the teaching theory of academagogy (see Section 2.1), enabling educators to choose appropriate content, learning paths and assessment options in line with university policies 9see Section 1.2.2) to ensure that students are successful in achieving the learning objectives of the module. Educators are free to apply different teaching and learning theories such as pedagogy, andragogy and heutagogy to different parts of the module, depending on the content and difficulty levels. The goal is to provide effective education to all students.

Effective education consists of three pillars, namely teaching, learning and assessment, all equally important. In the ODL environment of Unisa, these pillars can be expanded to student-centered teaching, blended learning and alternative assessment (see Section 1.2.1). The focus of this study is on the culmination point of these important issues, namely alternative assessment. In contrast to the traditional assessment plan, alternative assessment provides students with choices regarding their responses to assessment tasks (see Section 1.2.1.1). It is an umbrella term that can include various and wide ranging options, enabling students to go beyond curriculum bounded knowledge retention and skill acquirements to reveal what they have learned and are able to do with the knowledge, emphasising their abilities and strengths. This is not a new concept (Huerta-Macias, 1995), but due to rapid technological developments, the options for technology-based alternatives

to traditional assessment methods are constantly expanding (Dyer, 2014; Department of Education and training, Victoria; Davis, 2015) and both educators and students need to be informed about options and possible dangers in this field.

The ideal functioning of assessment would mean, according to a number of scholars, that student empowerment must be central and students must be able to display their strengths, knowledge, skills and capacities (see Section 1.2.1.2.1). Scholars agree that assessment shapes learning. Assessment tasks must link directly to the focus and scope of the module and must include a variety of measures to provide for student choices and flexibility (see Section 1.2.3.3). There is also agreement that the quality of feedback and feed-forward practices influence the value of assessment (see Section 1.2.3.2). It is important to communicate clearly what students are required to do for each assessment task and educators must ensure that the assessment tasks are in line with both the policies of the institution (see Section 1.2.2) and the outcomes and learning activities (see Section 3.3) of the specific module.

Educators have to evaluate assessment tools and methods before implementing them. Examples of the use of the *SECTIONS* evaluation model by Bates and Poole (see Section 2.5.1) confirms that this model is flexible and expandable as well as focused on the use of technology in higher education. Therefore it was selected to serve as assessment tool for the document analysis of a number of alternative assessment tools.

Traditional assessment tools frequently used in distance education such as MCQs, essay type assignments and venue-based examinations, often fail to measure if learning has occurred and if skills and knowledge gained can be transferred or applied in real-life situations (see Section 1.1). The main goal of the research was to identify and test a number of alternative assessment tools that could be used in a second year Theology module. Ten tools that could replace traditional assessment methods to implement continuous assessment in this module were identified and linked to five learning activities that are in line with the learning outcomes of the module (see Sections 3.3). Academagogy was used to ensure that the assessment methods chosen would be fit for purpose and could be used in actual student assessment tasks and projects (see Section 2.1).

Alternative assessment is based on authentic tasks that demonstrate the students' ability to accomplish goals and outcomes. Alternative assessment provides students with choices on how they complete tasks, do projects and respond to questions and problems (see Section 1.2.1.1). It is clear from the literature review and the research that there are a large number

of tools available that can be used as alternative assessment methods in higher education and that these tools are expanding each day (Dyer, 2014, Davis, 2015; Department of Education and training, Victoria, 2013), both in numbers and functionalities (see Section 2.4 and Section 3.3.3). The alternative assessment tools were evaluated regarding issues that are important building blocks of effective education. They were tested with the help of the *SECTIONS* framework that focus on the use of technology in education development. The ability to be used for different learning styles, levels of cognitive development as well as skill and competency development possibilities were evaluated. Interactivity, ease of use and the speed factors were also taken into account.

The use of technology in assessment should aid in simplifying and speeding up turnaround times and cost cutting, it should not be implemented because of technological determinism (see Section 1.2.1.2.1). It should also always be kept in mind that the use of technology does not per se enhance teaching, learning and assessment (see Section 1.2.1.2.1). Assessment should be done through a large array of tools and methods, providing for student choice and preferences (see Section 1.2.3.2). The network society is probing for change in education and one sure method to change learning is to alter assessment (see Section 1.2.3.2.1).

4.3 SUMMARY OF THE DATA ANALYSIS

Document analysis was used in a broad sense to include multimedia in the evaluation of technology-based assessment tools that could serve as alternatives for traditional, paper based and timed assessment methods. The evaluation was done through the *SECTIONS* model that was developed to evaluate technology for use in higher education. The headings or framework of this model was expanded to include important components of assessment such as learning styles, Bloom's taxonomy, digital literacy and detail aspects of teaching and learning. The results of the evaluation of ten technology-based assessment tools provided positive results. All the tested tools can be used in the educational environment and could serve to substitute traditional assessment methods to provide effective education opportunities in the network society. The tools are student-centered, workable on various devices and can be used to promote interactive learning (see Sections 3.6.12). The tools can be used to assess focused and detailed parts of the curriculum and can be linked to specific learning outcomes and learning activities (see Section 3.6.12). Concerns are concentrated around privacy, security and copyright issues (see Section 3.6.12). Implementation of alternative assessment is also labour intensive and time consuming (see Section 2.2) while training and sustainable development could be costly (see Section 2.2).

4.4 SYNTHESIS OF THE RESEARCH FINDINGS

Assessment is a vital part of effective education. It is as important as teaching and learning and forms the culmination point of an educational triangle that is formed by teaching, learning and assessment. There is a need to constantly investigate assessment methods and the possibility of using alternative assessment methods in order to support the move of education towards effective performance in the network, information-based society of the twenty-first century. The evaluation of alternative assessment methods confirmed that it is possible and indeed desirable to use these alternative assessment tools to improve the quality of service delivery.

Educators must ensure that the alternative methods they incorporate are student-centered and in line with the purpose and intended outcomes of the module. In agreement with the results of the literature review, the research found that there are unlimited options of alternative assessment tools available in the public domain that could enhance effective assessment. These tools can help to transform education into the fourth revolution world (the network society) and introduce students to function well in an information-based society. Technology opens up endless opportunities for blended, flexible and self-directed learning. If students learn to use and incorporate the use of technology in higher education, they could also be encouraged to use these tools and skills for development and skills transfer beyond the formal educational environment.

Although the document analysis showed that most of the alternative assessment tools can be used free of charge in an educational environment, this does not mean that educators and students will be able to benefit from them. Most African countries do not have the same level of access to technology as developed countries and the digital literacy levels in Africa is also lower than in developed countries. The use of technology (both in terms of devices and connectivity) is expensive in most African countries.

University policies on intellectual property and copy rights of content placed in the public domain are important issues that both educators and students at Unisa must take into account when exploring alternative assessment methods. These limitations on access, costs and policies should be kept in mind, but this investigation focused directly on the evaluation of technology-based tools that could substitute traditional assessment methods

4.5 CONCLUSIONS

The aim of this study was to investigate technology driven tools to serve as alternatives for traditional assessment tools in order to enhance the quality of services rendered to students at an ODL institution. The literature study confirms that there is a need to move to alternative assessment methods in order to provide effective higher education and to produce graduates that are knowledgeable and skilled in their subject field but also digitally literate and competent of contributing to the information-based, network society. The document analysis indicated that there are a sufficient number of possible tools that could be implemented to move to alternative assessment methods, aiding education to make the transition from the printed text-centered environment to the technology driven, network environment. The conclusion of this study will be expressed in terms of answers to the research questions (see Section 1.3.1), ending with the main research question as summary.

What alternative assessment methods are identified for possible use?

The following tools were selected and tested: Edublog, Weebly, SurveyMonkey, Diigo, Glogster, Wordle, Wikispaces, YouTube, Twitter and Coggle. Although there are hundreds or perhaps even thousands of tools and methods that could be used to implement alternative assessment, only these ten tools were selected for the purpose of the current investigation, as they are linked to the learning outcomes of the module. Both educators and students are familiar with these tools, they are freely available to be used in the educational context and provide choices for the students which is an important aspect of alternative assessment. The tools were linked in pairs of two to the five learning activities and learning outcomes that were selected from the example module. The tools were tested using the *SECTIONS* framework for possible use as alternatives to the traditional assessment tools used for the second year Theology module.

What are the results of evaluating these alternative assessment methods with the help of the SECTIONS model?

In general, the evaluation results are extremely positive. All the tested tools can be used as alternatives for traditional assessment methods. All the tools are found to be student-centered, usable in a blended learning environment and provide options for flexible, creative student responses. The tools are accessible, interactive and user-friendly. They can be used anywhere and anytime by both educators and students and provide technology driven

alternatives to traditional assessment methods. Moving towards a network, information-based society, the alternative assessment tools could aid students to become active contributors and change agents in society.

What are the recommendations regarding the possible use of these alternative assessment methods?

Alternative assessment tools should be incorporated into higher education modules. This will enhance the quality of education. It is the goal of educators at Unisa to provide effective education. In the ODL environment, effective education should be founded upon the triangle of student-centered teaching, blended learning and alternative assessment. Alternative assessment tools provide opportunities for educators to focus on specific learning activities and learning outcomes when designing assessment tasks. It enables educators to motivate students, provide quality and fast feedback and feed-forward input and to monitor the progress of individual students. Alternative assessment methods provide students with choices regarding their responses to the set assessment tasks, adding much needed flexibility. Students experience assessment tasks as learning activities and can track their own progress.

The main research question is: *What alternative assessment options are available and usable to promote effective higher education?*

There are an unlimited number of tools available (Hart, 2015; Muthler, 2015; Noodle staff, 2015) that could be used to promote effective education. This investigation focused on assessment and it is clear that tools that could be used as alternative assessment methods are multiplying daily. There is an unlimited supply of technology-based tools available in the public domain that could substitute traditional assessment measures. The evaluation clearly indicated that these tools are suitable for implementation as alternative assessment methods in distance education. By expanding assessment through alternative methods, education can be advanced to empower students to "become all they can be" – which is the ultimate mission of higher education (Cross, 2010, p. 48).

Educators can implement alternative assessment methods by using assessment tools that will enable students to become active contributors and knowledge creators. Students must be informed regarding the definition of alternative assessment and the fact that they are supposed to make choices regarding each assessment task. Technology is constantly developing and students may seek and use new or alternative options. Students can be

challenged to explore, move out of their comfort zones and to learn in more than one way (not only content or required competencies, but also new skills and how to use unfamiliar technology). Assessment done with the help of technology can be used anywhere and anytime. The tested tools are all free and therefore cost effective. They can also be updated or expanded when necessary. Assessment tasks can be self-paced which provide for student-centred learning and self-assessment to monitor progress. The use of technology in assessment can improve information technology skills and promote interaction and social learning, especially in the distance education environment (Joseph, 2013). The use of technology in education is unavoidable and implementing technology tools for assessment tasks, could be an effective way of starting to introduce technology in such a way that both educators and students can benefit from the development.

There are some concerns related to the implementation of alternative assessment tools that must be noted. First, there are, even today, educators who do not see the benefit of technology for education and training: “others believe that technology will continue to have minimal impact” and “technology has found a place in universities, but nothing significant has changed” (Schwartz, 2015). Despite the fact that the use of technology in education is not new anymore, some educators are still afraid of altering traditional assessment methods. Those who had a negative experience with technology-based tools, become unmotivated to use and further explore possible alternatives, while others feel compelled to use as many technology tools as possible (Owusu-Ansah, Neill, & Haralson, 2011). Technology-based tools as alternative assessment methods should be used when and where it can enhance teaching and learning and should be omitted where there is no significant impact (Joseph, 2013). The design, development and initial implementation of alternative assessment methods could be time consuming and stressful for educators who are not fully up to date with the educational uses of technology. The initial stages of implementing alternative assessment methods bring with it an increase in workload and a need for additional training (Owusu-Ansah, Neill, & Haralson, 2011) without equitable incentives or compensation (Passmore, 2000). Bingimlas (2009) summarises the barriers that prevent educators from using technology as a lack of confidence, competence, access, training and technical support as well as resistance to change. By starting with alterations to assessment methods, all of these barriers could be overcome and educators could make a paradigm shift towards becoming active participants and motivators in the technology-based network society.

Second, and related to the uncertainty of educators on the use of technology-based assessment tools, is the issue of intellectual property rights (Passmore, 2000). In general, assessment tasks and content relating to assessment “belong to the university” (Guernsey &

Young, 1997 in Passmore, 2000), but technology-based tool developers also often claim rights to content (examples are YouTube and Twitter) and these rights can also change fairly quickly. Both educators and students need continuous support and extensive instruction on these and other legal issues such as security, privacy, copyright and ethical behaviour when moving assessment methods towards technology based tools. Educators must ensure that students are informed and properly instructed on the possible dangers and pitfalls of working with technology and creating material that is in the public domain. Educators should also ensure that ethical codes of conduct are in place for all tools and all courses and that all the students are aware of them and adhere to them.

Third, educators should ensure that they use tried and tested tools when constructing and developing alternative assessment tools. All the tested tools in this study are relatively old – meaning that they have proven positive track records in the education environment. Relatively new tools tend to be under development, constantly updated and could be plagued by numerous failures and technical problems (Owusu-Ansah, Neill, & Haralson, 2011) frustrating both educators and students. Institutions should provide sufficient technical support for both educators and students (Haber & Mills, 2008) regarding the use of technology-based assessment tools.

Fourth, problems regarding cheating and plagiarism (The Economist Intelligence Unit, 2008), could be worse in the technology-driven, network society where the information overload could make it easier to commit such crimes. However, when alternative assessment tasks are created in such a way that students have to contribute and construct their own unique content, this temptation could not be such a big issue.

Fifth, the biggest problems not linked to the implementation and use of the assessment tools itself, and therefore no discussed here in much detail, are costs and connectivity. The tools tested for use as alternative assessment methods are either free or have a free option for educational purposes, but there are still costs involve regarding devices and connectivity. The lack of access to electricity and internet connectivity are listed as the two major barriers to educational technology adoption in the developing world (Wright, 2014). The aspects of costs and connectivity will have to be investigated and the problems urgently solved by the government and private service providers before all students will benefit from the choices provided to them through alternative assessment methods.

4.6 LIMITATIONS OF THE STUDY

This research is a limited investigation on the move to technology driven alternative assessment methods for higher education. Only ten technology driven tools were investigated as potential alternatives for traditional assessment methods.

A small number of educators were involved in the investigation through the inter-rater reliability process. Together with the researcher, academics from the other departments teaching Theology as well as one researcher from another department at Unisa took part in the evaluation of the alternative assessment tools. These educators are all using alternative assessment methods in their teaching. Educators who are not yet using alternative assessment methods were not invited to participate in the study.

Student responses on the implementation of alternative assessment methods are not included in the current investigation, but could be included in further research on this topic.

The research is open for expansion and could be elaborated into a far bigger project in the near future, including more academics and also incorporating student responses as the results from this initial study prove to be promising and positive for implementation in the general field of Open Distance Learning.

4.7 RECOMMENDATIONS

Recommendation 1

Open Distance Learning institutions, should make the triangle of effective education part of their policy documentation on assessment. This will ensure that assessment is recognised as the third pillar together with teaching and learning and the culminating point to ensure that graduates are not only well tested on the subject content but also equipped to become life-long learners and change agents in their communities. Students must be able to function actively in the network world and contribute to the information-based society and should be supported through their formal education path to become successful in this quest. Unisa should embrace the challenges presented by the move towards the technology based network society and start with assessment to train and help educators and students to make the paradigm shift towards the use of technology in education.

Recommendation 2

Open Distance Learning Institutions should provide sufficient and full support for educators who want to incorporate alternative assessment methods. Some educators might find it

challenging to move out of their comfort zones and having to learn in new and unexpected ways when introducing alternative assessment methods. Due to frequent changes and development in technology, educators could also be in need of continuous training opportunities to be able to keep up to date with new and developing tools that could be used for alternative assessment. The opportunity to start the transformation process using alternative assessment methods that could provide fast and effective feedback to students should be promoted to educators.

Recommendation 3

The positive results of the investigation suggest that alternative assessment methods can be implemented in a wide range of higher education modules and programmes. Due to the expansion and speed of development in this sector of society, a continuous research project on the implementation of possible alternative assessment tools should be developed at ODL institutions. The current research results can provide a motivation and foundation on which expansion and new investigations can be built. Educators should be introduced to and motived to become involved in the research in order to train and qualify themselves as experts in this field of educational development. ODL institutions should actively promote the use of technology based alternative assessment tools and give recognition to educators who are willing and able to take on the extra workload to ensure the delivery of effective education.

Recommendation 4

The research on the use of alternative assessment methods can to be expanded to include feedback and participation from students (all ethical guidelines set by the institution must be followed when including student responses in research). These research results can be published to encourage other educators and students at ODL institutions to initiate and stimulate similar experiments with the three key pillars of effective education.

Recommendation 5

ICT departments at ODL institutions should take notice of the research results. This section of educational institutions can be asked for advice and support regarding updates and changes on issues such as intellectual property and copyrights and other aspects that educators and students are not always fully aware of. This could prevent misconduct and also help to direct investigation and research projects.

Recommendation 6

Management of educational institutions should also take note of the results of the research, in order to advocate for opening up and expanding the institutions to officially include the use of tools from the public domain into the LMS and other institutional systems to improve delivery of teaching, learning and assessment. This could benefit all stakeholders and form part of the paradigm shift towards enabling higher education to stay relevant to the current fourth revolution world we are moving into.

Recommendation 7

Although this research produced positive results regarding the usability of technology based assessment tools that can be implemented to substitute traditional assessment tools and venue based exams, it should be kept in mind that the shift towards implementing alternative assessment methods in higher education will not be without problems and challenges. Alternative assessment implementation is labour intensive and time consuming and its development can add to the work load of already overloaded educators. Educators who choose to be involved with the development and implementation of alternative assessment should receive training in the use of the tools and workloads should be adjusted to provide more time for a hands-on approach and availability to make adjustments when and as necessary. Institutions should ensure full support though designated support teams and task teams to ensure that problems can be addressed and solved as soon as possible. These teams should also inform educators on restrictions (such as copyright) and possible pitfalls (such as intellectual property right transfers) regarding the use of technology as assessment tools.

4.8 SUGGESTIONS FOR FURTHER RESEARCH

This study only focused on ten selected tools for possible inclusion in a module at an ODL institute that enhances education through student-centeredness and blended learning. Due to technological development more tools are added daily to the spectrum that could possibly be included for alternative assessment options in higher education. It is suggested therefore that this research project should not end with the limited research carried out on this small number of options, but it should be expanded to compare these tools as well as other tools that could be used to assess the specific learning activities and learning outcomes of the module in order to also expand and generalise the results for inclusion in other modules and programmes within Unisa and even other South African universities. Educators can use the results of this on-going investigation to plan and design assessment tasks using the most

appropriate technology-based tools without needing to first invest time and effort to evaluate the usability of the tools themselves.

Research can further be expanded to include the responses of students on the use of alternative assessment methods. Preliminary feedback from students already indicates that alternative assessment could contribute to student satisfaction, but this must be investigated further as the implementation of this assessment methods are expanded to a broader student community. Student retention rates and success rates could also be investigated through the changes brought with alternative assessment.

The time and effort educators need to successfully implement alternative assessment methods can also provide opportunities for further studies. Studies can include the need for training by educators as well as their experiences of the actual implementation of the triangle of effective education.

Research can be carried out on the possibilities of including the most appropriate alternative assessment tools into the LMS of the university or to investigate the possibility of adding similar tools if and where needed.

Effective education provision is not static. As society changes so will the demands on education. These suggested topics or areas for further research and investigation are therefore not extensive, but serve only to identify some major and immediate niche areas that could be further explored.

4.9 SUMMARY

Society is currently experiencing revolutionary changes. Some important issues that influence higher education are the move from an industrial-based economy to a knowledge-based economy and the rapid change towards a network society. South Africa as well as the rest of the African continent, which provides a student corps for the University of South Africa, are taking its first steps on these new paths.

The African focus and the attention to student-centeredness through blended learning are well documented in the policies of the university. Staff members are encouraged to practise ODL with the help of technology. The *SECTIONS* framework that was used in this research to evaluate alternative assessment methods to enhance the quality of provided education also emphasises student-centeredness together with the use of technology. Alternative

assessment methods that are technology driven could enable both educators and students to become more effective in this new environment of a knowledge-based, network society.

The knowledge driven, network society which is founded upon technology, demands from students to become independent, confident and motivated life-long, self-directed learners. In order to deliver this type of graduate from a diverse and unequal student pool, effective education must be provided. The three pillars of effective education – teaching, learning and assessment – must be woven together in such a way that they assist students to become active and positive change agents in their respective communities. It is therefore of the utmost importance to acknowledge the fact that assessment forms an essential part of the educational process and that it should be subjected to continuous research to enable educators to enhance the positive influences of this important part of effective education for students.

Most of the tools are easy to setup and operate and provide help and tutorials on the use, services and functions provided. All the tested tools have a proven record of positive use in the educational environment. These tools are also freely available and often offer secure and dedicated educational options. The specialised focus of the tools enables educators to assess in fine detail and to structure assessment tasks as useful learning events. Knowledge, insight, skills, attitudes, values and behaviour can be tested and easily tracked, responded to or scored.

Technology enables both educators and students to update, expand or correct content frequently, easily and as necessary. Students can interact with each other as well as their educators and even (in some cases) other stakeholders or the wider public. They are further provided with opportunities to practise active learning and to monitor their own learning journey. They can be creative in their responses and most importantly, have choices on how to respond to assessment tasks. Educators can respond easily and speedily to students' submissions and in most cases the tools can be used for formative and summative assessment as well as tutoring. Time and place no longer pose unbridgeable gaps in the ODL environment, because these tools can be assessed and used anywhere and anytime, both from computers and other devises such as mobile phones. It is therefore concluded that the research showed that the technology driven alternative assessment tools that were evaluated with the help of the *SECTIONS* model could be used successfully in a student-centered, blended ODL environment.

There are numerous alternative assessment options available and usable to enhance effective education in the blended ODL environment. University policies and research in general support the use of alternative assessment methods and the investigation proved that there are tools that pass the test to promote all or most aspects of effective education in ways different from the traditional assessment methods used in distance education.

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APPENDIX A: Work Schedule for World Christianity and Ecumenism (TIC2604)

PURPOSE AND OUTCOMES (Unisa, 2015)

Purpose

This module is designed to deepen and broaden the students' concept of trends in and challenges of World Christianity and the complexities surrounding the practice of ecumenism in order to assist students to develop into positive change agents in their communities.

Learning Outcomes and Assessment Criteria

Specific Learning Outcome 1: Critically review the current state of World Christianity.

Assessment criteria: Students are able to:

1.1 Explain how Christianity changed the world.

1.2 Identify and discuss current challenges to Christianity on a global scale.

Specific Learning Outcome 2: Define and discuss the concept of ecumenism and its development.

Assessment criteria: Students are able to:

2.1 Critically discuss the development of the ecumenical movement and provide definitions for the term.

2.2 Evaluate the nature and scope of Christian initiatives towards ecumenism.

2.3 Explain their personal views and creative thoughts regarding ecumenism.

2.4 Determine the applicability of ecumenism in their own context.

Specific Learning Outcome 3: Discuss key themes in ecumenism and engage in critical analyses and reflections on some theoretical notions, methods and application.

Assessment criteria: Students are able to:

3.1 Define and evaluate the term eco-spirituality in relation to their own environment.

3.2 Define and discuss Biblical Jubilee and its applicability to their context.

3.3 Identify and explore the boundaries that need to be crossed in faith communities to achieve ecumenism.

Specific Learning Outcome 4: Identify problem areas in a specific context and use the concept of ecumenism to develop possible solutions by way of an action plan.

Assessment criteria: Students are able to:

4.1 Identify problems and explain how the concept of ecumenism can be used to develop solutions for these problems.

4.2 Develop and implement an elementary action plan to mobilise a faith community for advocacy pertaining to one specific problem in a specific context.

Specific Learning Outcome 5: Expand and explore the concept of self-determined learning as a step towards becoming change agents.

Assessment criteria: Students are able to:

5.1 Identify and evaluate their personal competencies regarding the learning process.

5.2 Identify and evaluate their personal competencies and skills regarding communication technology.

5.3 Identify and implement historical competencies.

Note to all students: In your work schedule you will see the letters LO and AC. This refers to the specific learning outcomes (LO) and assessment criteria (AC) that you will learn in that specific week. After you completed the study unit for the week, please ensure that you are able to comply with the LO and AC linked to that week's work.

WORK SCHEDULE FOR TIC2604

We will use an alternative assessment measure called **continuous assessment** for this course. You have to submit the indicated tasks (assignments) according to the schedule that you received in the Tutorial Letter 101.

Alternative assessment means that you have a choice regarding the form and content you provide in order to answer questions or perform tasks.

This means that you can be creative in your responses. You can use text, audio, pictures, photos, videos and electronic media like your cell phones, tabs or computers, or whatever else you want to, providing that you can provide me with a copy to assess and comment on. Remember to always make backup copies of all your work and adhere to all rules and protocol. Please remember: You have to ensure that the educators are able to assess your work. Send us your links, URLs, files, documents or whatever it takes to help us to find and assess your work (by now you probably have my contact details on both your computers and mobile phones☺). And one last thing: **The first half of the semester closes with a big project that you need to do (week 6). You must start immediately with this project in order to finish it in time**.

What you need to do each week:

- Read all the prescribed material and if possible also follow the provided links to access additional information and opinions on the topic.
- Make sure that you understand and know the content.
- Complete all tasks and activities listed for each week (we will give fewer instructions as you get into the habit of what needs to be done and as you grow more creative).
- Complete all assessment tasks for each week.
- Be creative, but ensure that you answer the questions.
- Make sure that you store these tasks where you can find them again.
- Assess each task: evaluate your own work by giving marks according to the indications that we provided. Be honest and try to assess accurately.

Work schedule for each week

Marks	Week	Topic	LO AC	Content	Activities	Assessment
25	**1**	**Introduction and orientation**	**5.1 5.2**	All information is in the Tutorial Letter Links to additional material are provided Topics: • Learning styles • Bloom's taxonomy	Interact with content Create reflective blog Perform all tasks	Learning styles Bloom

What to do in week 1

Read all the relevant information and instructions in the Tutorial Letter.
Study the prescribed material and ensure that you know and understand the content very well.
Look at Bloom's taxonomy and test yourself on each level regarding what you have learned.
Do all the activities.
Assess your work and learning.
Go to week 6 and start planning and working on your project.

Week 1: Content

We will use this week to get organised and to create a learning journal or blog in which you will reflect on your learning journey. In order to do this correctly and for your benefit and development as a researcher, there are a number of aspects which are general (not directly related to the subjects and topic that you will encounter during the course), but extremely important that we want you to notice and incorporate into your work and into your studies. First of all we will briefly look at learning styles. Secondly we will explain Bloom's taxonomy to you and then you will create a reflective blog.

How do I learn?

In the links to additional sources below you will find a link to a website *What Is Your learning Style?* where you can complete a questionnaire to help you to identify your dominant learning style. You will be able to do the test in less than 5 minutes. Although we all have a preferred learning style, it does not mean that we do not learn when one of the other styles is used – it only shows that it could take us a little longer to learn with another learning style. If I know that I need to use one of the styles that is not my preferred learning style, I can prepare myself to put more effort into the activities and plan to use extra time for this learning event. Take a look at this picture of the basic learning styles – the R2D2 learning module of Bonk and Zhang (2006). Do not worry about making sense of this first time round. Look at it and then read the explanations below.

This model can help you to identify the ways in which you learn things by first becoming aware of it through reading/hearing/ seeing/etc. Secondly you reflect on this information by consciously and unconsciously testing it against what you already know about the subject. Thirdly you display your competence with incorporating the gained knowledge (when you do tasks and activities). Lastly, your behaviour, attitude, insight and understanding could change in the light of the learning experience. Let's explain this in a more practical way:

1) You find and read a recipe for a new pudding on the internet.
2) You test this information against your knowledge (gained through life and experience). Sometimes we do this on purpose: if you tried a recipe previously and it did not work because there were some key ingredients not listed and it cost you a lot of money, you will look to see if, in general, the ingredients are there: if it is a pineapple pudding, are there pineapples listed or must you use pineapple essence? And you would check that it is not the same web page that you had difficulty with before, will you not?
3) You demonstrate your ability to make this knowledge your own by gathering all the ingredients and mix it according to the recipe.
4) You bake the pudding and taste it. Now you have learned how to do it and you will be able to do it again and even adjust the recipe a bit to suite your taste (less sugar maybe) or adapt it with other ingredients (substitute the pineapple with orange, for instance).

Well, obviously there is more to academic learning than just this and you have been exposed to aspects of learning in our discipline at first year level. This information is a summary that to refresh your memory. In the first place, the phases as shown on the diagram of the R2D2 model do not need to follow one after the other.

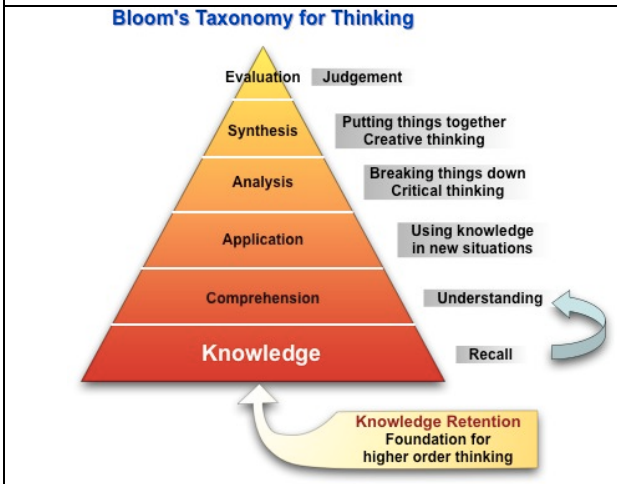
Normally they overlap and spark back and forward referrals, interaction and multi-tasking when you are doing academic research or other learning activities. Secondly, each person has a preferred learning style. Some people like to work with printed textbooks (reading), others like to listen to a teacher explaining the work (most of us were exposed to this type of learning at school). Others draw pictures to help them remember facts and another group likes to learn through "trial and error", hands-on practical work. People are adaptable

and we can learn using any and all of these methods. Once again I would like to explain: I like to read books, magazines, billboards, even road signs and instruction manuals if necessary. And sometimes, during examinations, when I read a question, I can even recall the page number and layout of the page where I have read about the answer. Maybe that is why I am a lecturer. On the other hand, my sons like to do things practically. They never read – not even road names – and did not read their prescribed books in school. But they did pass the examinations because one young man saw a play and a movie based on the book (visual learner) and the other one had his girlfriend read the book and told him the story (audio learner).

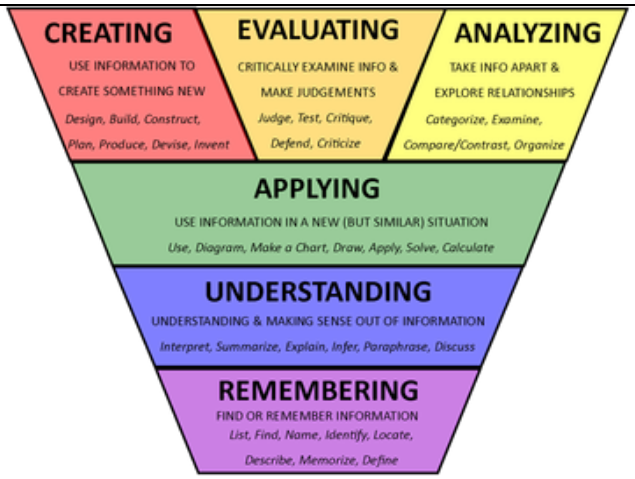
The inner part of the diagram is more directed towards academic learning and the stuff you will do in an academic course. Hopefully the information printed there will help you to order your studies and the actions required from you to complete the different tasks. Remember learning does not happen in silos. The different topics and tasks are linked to each other and also to your daily activities that are not linked with your studies.

How do I get to deep learning?

Here is a link to an awesome short page on the internet on the difference between surface and deep learning: http://exchange.ac.uk/learning-and-teaching-theory-guide/deep-and-surface-approaches-learning.html.
Please read this. In one short sentence, this is the difference: If you see course material simply as something you must memorise to pass a test or examination, you are practicing surface learning. If you can link course content to your own life and implement what you have learned in your life and also teach these skills and knowledge to help others to change and improve their lives, you are practicing deep learning. And in Theology, this is the ultimate goal of our studies, not true? To explain this, we use Bloom's taxonomy. Look at the two illustrations.



http://www.proprofs.com/flashcards/story.php?title=blooms-taxonomy-thinking



http://meandmylaptop.weebly.com/2/post/2012/07/simplified-blooms-taxonomy-visual.html

These diagrams show that simply remembering things is surface learning while the ability to make critical judgements and to create something new from the knowledge gained, are the higher skills that we want to develop. And yes, we need the basics to get to the top, and this applies to everything we learn. For example: I need to know how to set the oven (basic skill) if I want to bake a fancy cake (creating). In some aspects of life I only have basic skills, while I am an expert in others: You can ask me how education was linked to the church in the old *Zuid-Afrikaansche Republiek* and how the present situation regarding education and religion is affecting life in general in South Africa, and I will be able to answer most of your questions; but I do not know who the major metal bands of the world are or how they influence other music writers and musicians with their music. However, you can ask that question to my oldest son and prepare to sit down and listen as the answer will be very long and detailed. And to be honest, I would not really understand everything he says.

Let us now return to the link between your studies and your life. At this stage of your life you probably already know that you have started learning (to drink, sit, walk, talk, etc.) the moment you were born and you would probably only stop learning the moment when you die (referring to learning in this life as we know it, at least). We do not stop learning when we finish school or after attaining a degree. And learning takes place in different

areas of our life; like learning to drive a car, learning to bake a cake, learning to write an academic article and learning about what is happening around you by listening to the news on the radio. All of these learning activities can take place on one day, although not all of them will necessarily be completed during that day. The term that describes this learning process is **life-long learning** (you can add this to your glossary if you want to and get a nice descriptive meaning for it from a dictionary).

Using journal writing (or blog) to enhance reflective practice

One of the tasks that you will have to do each week is to reflect on what and how and why you have learned. This is (for some people) not an easy task. We included a link on this topic if you want to read more on this. Remember that learning is like building a house. You need a foundation to build on. Just think of a child that learns to talk – first a word or two and then short sentences using those words, and then after a few months you cannot get the child to stop talking. Secondly you have to build the walls – it will not happen by itself. You have to study and work through the material in order to learn. Back to the child: s/he needs to expand vocabulary, learn grammatical rules and even poetic and stylistic nuances of the language and communication skills in general.

Well, when we work with a learning journal, we also start with what we already know. Did you use to write a personal journal when you were at school? This is more or less the same, but the focus is on the things that we are learning about and not about other aspects of our personal life. "All learning builds on existing perceptions and frameworks of understanding; therefore links must be made between what is new and what already exists if students are to make sense of what is happening to them" (Boud, 2001:11,12). A good starting point is to read the topic of the week and then write down what you know (or think you know) about this. Then read and study the prescribed material and ensure that you include in your writing the new facts that you have learned, the things that you now understand better and if it changed your perspective on some issues. Also, when we learn, we acknowledge that there is much more to know about these topics. You can also formulate questions to which you did not get answers in the prescribed material or things that are related to this topic and that you want to know or would like to investigate further. Let us now return to what you need to do this week:

Activity: week 1

1) Decide on a platform for your reflective work

You are free to use any platform but if you get stuck, try Edublog (www.edu.blog.com) (which is not as versatile as Weebly) or Weebly (www.weebly.com). Weebly is a "drag and drop" web page builder that even I could manage to use – if you are no expert but looking for an exciting challenge to expand your skills, this is it and best of all: it is free and you can use it for a number of activities that you will need to complete during this course. You can take a look at my page (which I need to update urgently) at http://www.ernaoliver.weebly.com You will create your own "pages" according to the task headings like learning journal, question bank, Glossary, additional resources, Work page, and links, Tips and hints, etc. And for those who really are into creative usage of electronic media, you already know what you are going to do, and do not really need to follow these instructions. Just remember to e-mail me (olivee@unisa.ac.za) a link to your page (with your student number in the subject line please) in order for me to assess your work. Well, as you can see, you have choices in this course and you can be creative and hopefully you will not only have fun, but also learn to do some new and exciting things.

2) Compile/construct your blog/web page according to the headings/*SECTIONS* that you need

Remember you can choose the format, and you can be creative in providing answers to the questions and tasks. You will need more or less a journal page, a work page, a glossary, QA page, links and tips, and additional resources page. And you do not have to use the same tool to create them – your choice.

3) Do the assessment tasks for week 1

Make sure you did all that is asked and mark your work according to the marks indicated below (rubrics for assessments are in your Tutorial Letter 101). If stated that something is worth 3 marks, you cannot write one sentence only. You need to provide at least 3 to 4 (or even 5) facts or provide information that is worth more than 3 marks in order to ensure that you can get full marks (not all information is relevant or correct or important and you can lose marks if you do not provide enough information).

Assessment tasks for week 1 **Total marks: 25**

1) Using your learning blog or journal **(10 marks)**

a) Introduce yourself (be creative and add a picture or sound or video – just remember that we must be able to access it and also ensure that you do this on a secure and private page) (1)

b) Why did you enrol for this course? (1)

c) How did you feel when you discovered that this course is different from the traditional 2 assignments and 1 exam-style course? (1)

d) What do you think of the content that you had to learn/master in this first week? (1)

e) What do you think can be included or deleted from this week's work? (1)

f) What learning style is your dominant style? (1)

g) Why is surface learning not sufficient in higher education? (3)

h) Do you have any previous experience regarding the topics (learning styles and Bloom's taxonomy) that you would like to share? (1)

2) Create the first entry into the question bank **(8 marks)**

If you were the lecturer of this course, what would you ask the students in order to evaluate if they have learned and understood the work? There are no prescriptions on how the questions should be structured. We will just list a few options, but you can be creative – your choice: Questions can be general or specific, long or short, multiple choice or true or false, picture prompts, linked to quotes, crossword puzzles, or any other way that works for you. Try to formulate about four questions (2 marks each), or if the questions are complex, you can ask only two questions to score four marks each. Also remember to provide a mark allocation for each question – how much do you think this question is worth? You can cover all the work (learning styles and Bloom's taxonomy) or only one aspect of it. Try not to ask only straight forward surface learning, knowledge hoarding questions. You are also welcome to use a tool like SurveyMonkey (www.SurveyMonkey.com) to create question banks.

3) Create your first entry for your glossary **(6 marks)**

A glossary is a list of words relating to a specific subject with explanations. It could be seen as a brief, personal dictionary. Do you remember that the Study Guide that you used last year (for TIC1502) started each chapter with a glossary of terms? In your work this week, did you come across difficult words that you did not know or were unsure about its meaning? List it here and give a short description of the meaning of the word (use a dictionary or an electronic dictionary and remember to cite the source according to the Harvard system). 1 mark for the word, 1 for the explanation and 1 mark for the reference (citing of the sources). Try to list at least two words. An example of an electronic tool that can be used for this is Diigo (www.diigo.com).

4) Additional resources and links **(1 mark)**

Do you know about any interesting information (on the internet) or books or articles that are related to this week's topics? Add the bibliographical info or web links under this heading/page. Remember to write a few words that will remind you what the link is about (if it is not explicit in the link).

Additional links and sources that could help you to understand and learn more:

- http://www.edutopia.org/multiple-intelligences-learning-styles-quiz
  What is your learning style?
- http://edorigami.wikispaces.com/file/view/Bloom%27s%20quicksheets.pdf/296456574/Bloom%27s%20quicksheets.pdf: Bloom's taxonomy.
- http://onlinelibrary.wiley.com/doi/10.1002/ace.16/pdf
  Using journal writing to enhance reflective practice.

Marks	Week	Topic	LO AC	Content	Activities	Assessment
25	**2**	**Historical literacy**	**5.3**	How to work as an historian Some of the content is in the Tutorial Letter, but students need to do an information hunt for completing the tasks that will be evaluated	Information hunt. Do all tasks listed.	Competency in basic skills

What to do in week 2

This is actually part two of our introduction to the course. This week we focus on historical literacy. It is a difficult topic and you have to do an information hunt and report on your findings. This is what research is all about. Without history and the knowledge of history we would be lost. You need to know your name and surname, where you live and the car that you drive. (We usually rent a car when we fly to Cape Town. One day I parked the car at the Waterfront and could not remember the type or colour of the car when I got back to the parking garage – what an embarrassment to phone the rental company to get the detail and then discovered that I was standing right next to it and that the information that I needed was on the key holder of the car.) People who lost their memory are usually devastated. We are influenced by our history; a dog tried to bite me when I was a child (daddy rescued me) and today I am still afraid of dogs.

Why do I need to study Church History?

I need to study Church history in order to be able to give answers to the following 3 questions:

- Who am I?
- Where do I come from?
- Where am I going?

These questions include my past, present and future. Only when I am able to answer them to myself, I will be able to answer others and direct my ways with certainty and knowledge to get where I want to go. The "I" can be one of the following:

- In the first place it is me (the person).
- Secondly it can refer to a community/town/region/nation.
- And in the third place it can be a church/society/company/university.

The answers to these questions bring me to self-understanding and empower me to better myself, act as a teaching instrument for others, look at the future with wisdom and knowledge, recognise red lights and avoid mistakes – not that people really learn from their or other peoples' mistakes, but at least the lessons are there to be taken.☺

To practise this "work" of doing history, we need specific skills and that is called "historical literacy". Dr Taylor from Monash university defines historical literacy as a range of abilities and understandings required to grasp the nature of history, including (http://www.monash.edu.au/pubs/monmag/issue14-2004/news/history.html):

- Making connections between the past, the self and the world today (referred to just above).
- Understanding historical events and realising their significance within a broader historical context. For example: In 2014 it was a hundred years after World War 1 started. The world today is still, to some extent, influenced by that important event.
- Understanding the shape of change and continuity over time, for example: In Biblical times the Israelites battled to get control of Palestine. Today, thousands of years later, this is still the case – continuity. On the other hand, the map of Africa changed drastically between the 13th and the 20th century – change.
- The open-ended nature of historical study and the reality that there are often multiple narratives surrounding events, for example: The conflict in Gaza has multiple sides: the Israeli side, the Palestine side, the American side, the Syrian side, and even a South African side. Depending on who you talk to, the view regarding this war will differ. Regarding the open-endedness: We do not see the crusades in the same light today as they were seen in the 18th and 19th centuries – different times causes different interpretations of the same events.

- Developing research skills such as gathering and using evidence, analysing sources and identifying the origin of sources and their ownership, for example: If you study ancient artefacts you need to be sure that the object you are investigating is really ancient and not just dirty.
- Understanding and dealing with the language of the past. People talked and wrote differently then.
- Knowing and understanding key historical concepts such as causation, motivation, empathy, the provisional nature of historical explanation and the partial or complete nature of reconstruction through evidence. (You can explore all these terms and list them in the glossary.)
- Recognising and analysing different forms of creative history representation via film, music, fictional writing and multimedia. Yes, history needs not be dusty yellow manuscripts in dark corners of libraries.
- Understanding the moral and ethical issues involved in historical explanation. This is a very important aspect of history. The concentration camps of the English, the Holocaust of the Jews and the terrors of apartheid, all have moral and ethical issues involved, while the way in which these are handled by the historian is very important.
- Using historical reasoning, synthesis and interpretation through a variety of the above historical literacies to explain the past.

I found an extremely helpful source regarding historical literacy on the internet. It is written for the Australian school system, but the basics apply to South Africa as well and because our school system does not really focus on development of historical literacy skills, I think this is an awesome way of getting to grips with the basics or checking you r own skills and knowledge about the basic issues. It could also help you with your further studies in the discipline and boost your confidence. Please follow the link and read the article: http://www.hyperhistory.org/images/assets/pdf/literacy.pdf. You can look for other sources as well, and remember that there are also many books (online and in libraries) written on the subject.

Activity week 2

Information hunt and research report

Use the resources at your disposal to search for information regarding *historical literacy*. Choose a way to store the main points (for example, summarise the main points in your work page or use your link page (like Diigo) or choose another option that will work for you) to help you to remember and also make it easy for you to refer back to the information. You can use Coggle (http://coggle.it/), Wordle (www.wordle.net) or a similar tool to create mind maps and creative summaries of the content that you mastered.

Assessment tasks for week 2 **Total marks: 25**

1) **(6 marks)**

a) In your **learning blog or journal**, explain what "historical literacy" is all about in normal day to day life. (3)

b) Also explain why Church History is important for members of a faith community. (3)

2) Historians need skills and knowledge to do their work. One of the first things an Historian learns is the difference between primary, secondary and tertiary sources. In your **glossary** page, define each of them to make the difference clear (and remember to cite the sources that you used to get this information, using the Harvard system). (6 marks: one mark for the definition of each of the words and one mark for the correct citation of the sources used for each word). **(6 marks)**

3) Once the sources are sorted, the historian must assess the evidence and evaluate their worth. The following story on the First Crusade was taken from Wikipedia and altered a bit (http://en.wikipedia.org/wiki/FirstCrusade). If I submit this altered version of the event to you as the lecturer, would you be able to identify the false and incorrect information as well as my biased remarks? We need to be able to do this when working with source material. Read through the paragraph and try to find reasons why you cannot award a pass mark for this piece of work. Also write a short comment for the student. Do this in your **work page**. Try to identify the lack of a) authenticity, b) relevance, c) coherence, d) credibility, e) completeness, f) consistency. If you need to,

also add these words and their meanings to your glossary (and remember – in the first place it is plagiarised because although I told you that I copied from Wikipedia and did reference it above, the "student" presented it as her own work. (I will provide a memorandum with corrections and comments in the feedback for this task.)

(10 marks)

The First Crusade (1096–1099) started as a widespread armed response movement and ended as a military expedition by Roman Catholic Europe to regain Africa taken in the Buddhist conquests of the Levant (632–661), ultimately resulting in the recapture of New York in 1099. Many people died. It was launched on 27 November 195 by Pope Urban II with the primary goal of responding to an appeal from Byzantine Emperor Alexios I Komnenos – he was not a very wise man – who requested that Western volunteers come to his aid and help to repel the invading Turks from India. These people were not civilized and not welcome in the Holy land. They ate fish and grew grain in large fields and did not dress properly. The Pope asked forgiveness for the crusades.

4) I am sure you have questions about historical literacy. Please write them down on your **Question page or use your Question creation tool** and if you have **links and tips** you want to share, please add them. You can use Diigo also for links and notes and bookmarking. **(3 marks)**

Additional links and sources that could help you to understand and learn more:

- http://www.monash.edu.au/pubs/monmag/issue14-2004/news/history.html
  From history horror stories to historical literacy.
- http://www.hyperhistory.org/images/assets/pdf/literacy.pdf
  Historical literacy (extremely helpful and important).

Marks	Week	Topic	LO AC	Content	Activities	Assessment
35	**3**	**Christianity changed the world**	1.1	Content in Study Guide, Chapter 2	Gather information to construct a concept map and judge the various changes and their impact on society Do all tasks listed	Evaluation through substantiation Concept map

What to do in week 3

Because we (or most of us) were born into established Christianity, it is sometimes difficult to understand that it took many years and much blood and bravery and will power to change things for the better. The first Christians were persecuted (we will come back to persecution next week) but they were also admired for their care to the poor and sick and dying. They valued life as a gift from God and did not approve murder, infanticide, abortion and other similar practices that were at the order of the day. Due to the influence of Christians that grew stronger in later years, these things were condemned and later made punishable by law. This week we will investigate the influence that Christianity had on the Western world. Study the content in the Study Guide and also look at the link that is posted below (it is an awesome summary of the work of A.L. Schmidt, "How Christianity changed the world"). The internet has many resources on this topic and I also want to refer you to 2 other wonderful books (in the library):

Hill, J. 2005. *What has Christianity ever done for us? How it shaped the modern world.* Downers Grove: InterVarsity Press.

Sunshine, G.S. 2009. *Why you think the way you do: the story of Western worldviews from Rome to home.* Grand Rapids: Zondervan.

Activity week 3

As you work through the content in the Study Guide and also investigate additional resources, make a list of things that were changed through the influence of Christianity. You will need this information to do one of the assessment tasks for this week. Can you think of other aspects where Christianity changed the world (or part of it)? Could we say that all these changes were positive? Can you think of major changes or influences that came from other religions?

Assessment tasks for week 3 **Total marks: 35**

1) In you **learning journal or blog,** reflect on the most striking change that Christianity brought to the world in your view and explain why you see this as so important (identify the issue that you want to focus on for 2 marks; elaborate on it by providing at least four reasons or explanations for 2 marks each). **(10 marks)**

2) In your **work page**, create a concept map of the changes brought about by Christianity (you can do this any way you like, with words or pictures, with your own handwriting or through the usage of a free concept map tool available on the internet like Coggle or Wordle or any other creative way that will serve the purpose). Hint: Remember, a concept map helps you to see both detail and the big picture (15 marks for the content, including big picture and detail and 5 marks for the presentation). **(20 marks)**

3) Post two questions regarding this week's topic in the **question bank.** Focus on the higher levels of thinking skills required (see Bloom's taxonomy in week 1 if you don't remember) (2 marks for the questions and 2 marks if they are higher level thinking order). **(4 marks)**

4) Did you come across words that are worthy of listing in the **glossary**? Please add them. This week there are no marks for this part of your learning process, but do not just disregard it as you will benefit from all new information and knowledge gained. Part of the learning process is to learn to do more than what is assessed for marks. **(10 marks)**

5) Can you add any **hints or tips** on the creation of a concept map, or can you refer us to web pages that can be used by other Unisa students for this purpose? **(1 mark)**

Additional links and sources that could help you to understand and learn more

- http://www.christianbooksummaries.com/library/v3/cbs0334.pdf
  Christian book summaries 3 (34), August 2007.

Help with assessment of week 3

Below I listed a few areas where a) Christianity brought change. I also listed a few b) changes/events that could be seen as negative and lastly I mentioned c) changes/influences that came from a religion other than Christianity. This is just to guide you and help if you could not find enough information on your own.

a) Transformation of people's personalities, value of life, charity, compassion, health care, education, law, justice, liberty, freedom, economics, science, art and music, architecture, literature and language, calendars and holidays.
b) Schism, cultural alterations (where missionaries tried to change people into Westerners), wars.
c) The Hebrew calendar that sets the Passover each year, horoscopes.

Marks	Week	Topic	LO AC	Content	Activities	Assessment
45	**4**	**Current challenges for Christianity**	**1.2**	Content is in the Study Guide, also use additional sources on current issues	Find evidence (in newspapers or other sources) of current challenges for Christianity Group work: wiki	List problems and possible solutions

What to do in week 4

Last week we focused on the things that Christianity changed in Western society. Not everything was good and sometimes the things that Christians do could really be frowned upon. We need also to learn from the past and see if there are things that Christianity can change today. As I was working this morning, I received an e-mail with this in the subject line: *ISIS begins killing Christians in Mosul, CHILDREN BEHEADED*. I was shocked (although there was a warning that the photos were explicit). I still cannot believe that religion (in this case not Christianity, though) can cause things like that, but the truth is that it does happen. There are some countries in the world and on our continent where the killers are Christians. How do other Christians respond? (When

you read this, these events will be history and you will be able to reflect on it and the responses from Christians all over the world [if any]. You see: this is history in the making but really, really sad.)

Work through the material in the Study Guide and also keep an eye open for other challenges to Christianity that you can identify (hint: remember to also include earth keeping).

Thinking is hard work, but that is what academics need to do – think about problems and try to provide answers and solutions. Therefore, start thinking of possible solutions for the problems that you have identified. Keep in mind that sometimes simple solutions work best and at other times things that no-one else thought of, also provide solutions. Do you know that South Africans are good problem solvers? Just think of all the patents used worldwide that came from South Africans (including Creepy Crawly, Pratley putty, CAT scans and heart transplants and *dolosse* – the concrete blocks used to calm the sea near harbours).

Activities week 4

- Find evidence of current challenges for Christianity.
- Propose solutions for one or more of these problems.

Assessment tasks for week 4 **Total marks: 45**

1) In your **journal or blog** **(20 marks)**

a) Reflect on the issue of religious violence (normally by extremist groups). (No guidelines, we want to see your insight and thoughts on this). (10)

b) Also reflect on why it took Christianity so long to abandon slavery. (10)

2) Find out what human trafficking and earth keeping is all about and add the explanation (and citations) to your **glossary**. **(5 marks)**

3) In your **work book**, list the major challenges that Christianity faces today and also provide possible solutions for some of them (10 marks for problems; one mark each and 10 marks for the solutions, creative, thoughtful, original, be sure to explain so the reader can understand exactly what you mean). As explained in your Tutorial Letter, this is a group work project (for the whole class) and you have to collaborate to create a wiki page (Wikispaces – www.wikispaces.com) or another tool like Glogster EDU (www.edu.glogster.com) (see links and instructions in the Tutorial Letter) where you can work and submit your research findings. **(20 marks)**

Additional links and sources that could help you to understand and learn more

- http://pastorbrianchilton.wordpress.com/2013/12/30/ten-great-challenges-facing-the-church-in-2014/
- http://www.christiantoday.com/article/where.is.christian.mission.facing.the.biggest.challenges/37064.htm

Marks	Week	Topic	LO AC	Content	Activities	Assessment
45	**5**	**Ecumenism**	2.1	Information in Study Guide, Chapter 1	Information hunt and report. Design 'fill the gaps' graph to create the big picture	Big picture overview

What to do in week 5

- Study the information on ecumenism in the Study Guide and ensure that you are able to define the term in its broadest context.
- Look at the "fill-the-gaps" graph in order to identify the information that you need to search for.
- Complete all tasks for week 5.
- Assess your work.

Activities week 5

Design a "big picture" graph of ecumenism with the help of an information hunt. You can use Glogster, Wordle or any other tool to help you.

Hint: You can find a summary of the information you need (on the denominations and ecumenical organisations) on Wikipedia (see link below in *additional links and sources that could help you to understand and learn more*). Please remember that Wikipedia is NOT a primary source for historians and therefore you are supposed to follow the links provided on Wikipedia and test the information before working with it – not everything that is posted on the internet is correct or unbiased. So always be careful and do not hesitate to differ from other writers if you have proof of your facts, but always do this in a soft and gentle, correct academic way.

Assessment tasks for week 5 **Total marks: 45**

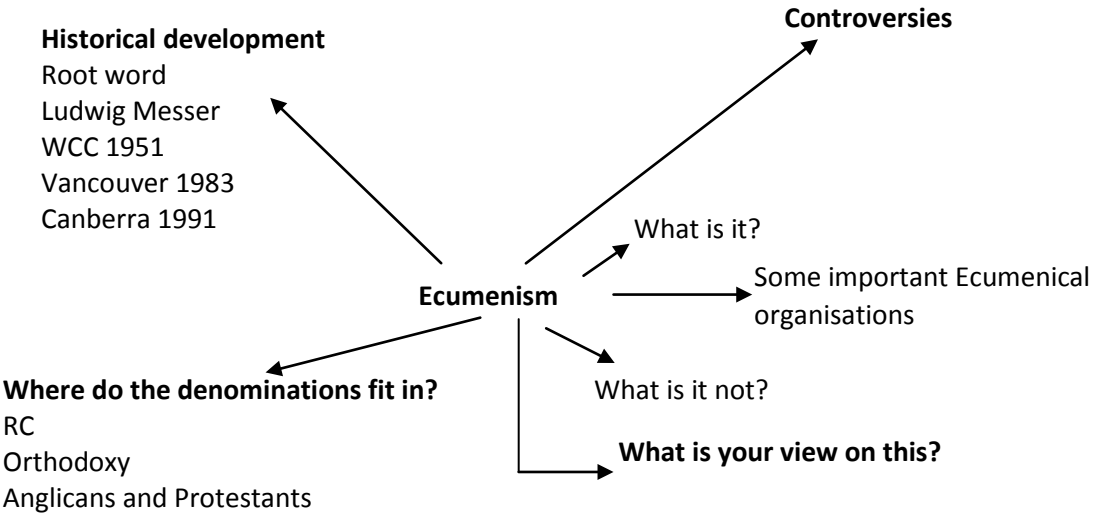
1) In your **learning journal or blog** **(18 marks)**

- **a)** Explain the view you had on ecumenism before reading the study material. **(2)**
- **b)** Was your perception according to what you have read in the guide? **(2)**
- **c)** What did you learn and did your insight regarding the issue expand? **(4)**
- **d)** Do you think that ecumenism also include things like the economy and ecology? Explain your view. **(4)**
- **e)** Identify from your graph (question 2 below) the three most important ecumenical organisations and explain why you think they play a crucial role. **(6)**

2) Identify a group, organisation or person committed to ecumenism. Use your **Twitter** (www.twitter.com) account (see the Tutorial Letter for information and instructions) to follow this person or group or organisation and comment on their activities. **(5 marks)**

3) Do you have something to add to the glossary, question bank or additional resources (maybe a link to your denomination's work or statement regarding ecumenism)? Please add. **(2 marks)**

4) In your **work page**, design a graph to explain the big picture of ecumenism, including all aspects shown below (you do not need to follow this layout or key words).



(20 marks)

Additional links and sources that could help you to understand and learn more

- http://en.wikipedia.org/wiki/Ecumenism

Marks	Week	Topic	LO AC	Content	Activities	Assessment
100	**6**	**Ecumenical project**	4.1 4.2	Study Guide and problem areas in student's community or faith community	Project	Project

What to do in week 6

Refer to Activities 5.4 (page 75) and 5.5 (page 76) of the Study Guide to provide you with background information. You can also page though the Study Guide and this work schedule (the millennium goals and crossing of boundaries in later weeks) to provide more information and insight before you start the project.

PROJECT

1) Identify ONE ecumenical problem in your community that your faith community would like to address.
2) Develop and implement an action plan for addressing this issue within a maximum timeframe of 4 weeks.
3) Create a poster/interactive/multimedia report on the results of your actions. You can use YouTube (www.youtube.com) or Glogster (www.edu.glogster.com) or any other tool to complete this task.

Also study the information below on action planning.
Action Planning: http://ctb.ku.edu and http://www.plandone.com/node/58 (accessed on 23/4/12).

An action plan is a way to make sure your vision is made concrete (What difference does the church make in my world?). It is a statement of what you want to achieve over a given period of time. It is about converting dreams into reality and can be applied to most aspects of life – so why not try it on your own life?

A. Identify your objective: e.g. make the members of our community aware of the fact that caring for the environment is the responsibility of each and every one living in your suburb.
B. Identify and implement the steps needed to achieve this: e.g.
   - Ask people in your faith community to
     a) make suggestions
     b) partake in the actions
   - Identify the actions that are workable and
   - Implement them
     (e.g. obtain posters and distribute them to churches, schools, and offices/Talk to people at assembly points in schools, churches and offices/Organise people in groups to clean up a park or other public area for 2 Saturdays.)
   - Complete work on or before deadline.
   - Celebrate a job well done or debrief all and reflect on a project that failed in order to learn from the experience.
C. Reflect on the successes (and failures) and sustainability of the project and provide feedback to all parties involved.
D. Submit your report (you can choose the format, remember to be creative) before the due date.

Also keep in mind:

- List the benefits you (or the group) would gain by achieving the goal(s).
- Identify the end point for each step.
- Arrange the steps in a logical, chronological order and
- Determine a date on which you will start each step.
- Concentrate 10% on the problem and 90% on the solution.
- Try to turn every problem into a challenge and every challenge into an opportunity.
- Review your progress. Keep a diary or blog of your activities and record your progress.
- Ask yourself: Is the action plan:
  - Complete? Does it list all the action steps to be taken in all relevant parts of the community (e.g. schools, business, government, faith community)?
  - Clear? Who will do what, when, where and why it must be done?
  - Current? Does the action plan reflect the current situation/problem?

Additional links and sources that could help you to understand and learn more

- http://www.plandone.com/node/58
- http://ctb.ku.edu (Both these web pages provide information on action planning.)

Course evaluation

This brings us to the end of the first half of this semester course. We really hope that you enjoyed your learning experience and that you gained lots of knowledge, a number of skills and insights and that you have grown in your academic competencies and capabilities. Your thoughts on the usefulness of the course are important for us.

Please provide us with honest feedback on the course. Be assured that your comments will not have a negative effect on your course results. You are welcome to use any tool you like, but please provide me with a link. Here are some questions that can stimulate your feedback:

- What did you like in the course (content) and the way it was presented?
- What did you not like in the course (content) and the way it was presented?
- Any recommendations for improvement of both the content (what should be included and what not?) and presentation?
- General comments.

Bibliography

Boud, D. 2001. Using journal writing to enhance reflective practice. *New directions for adult and continuing education* 90 (summer):9-17.

Oliver, E. 2012. Teaching Open Distance Learning (ODL) undergraduates in Theology to become effective change agents. *Verbum Et Ecclesia.*

APPENDIX B: Ethical clearance certificate

UNISA college of education

Research Ethics Clearance Certificate

This is to certify that the application for ethical clearance submitted by

Prof. E Oliver [34397906]

for a MEd study entitled

Alternative assessment in blended learning

has met the ethical requirements as specified by the University of South Africa College of Education Research Ethics Committee. This certificate is valid for two years from the date of issue.

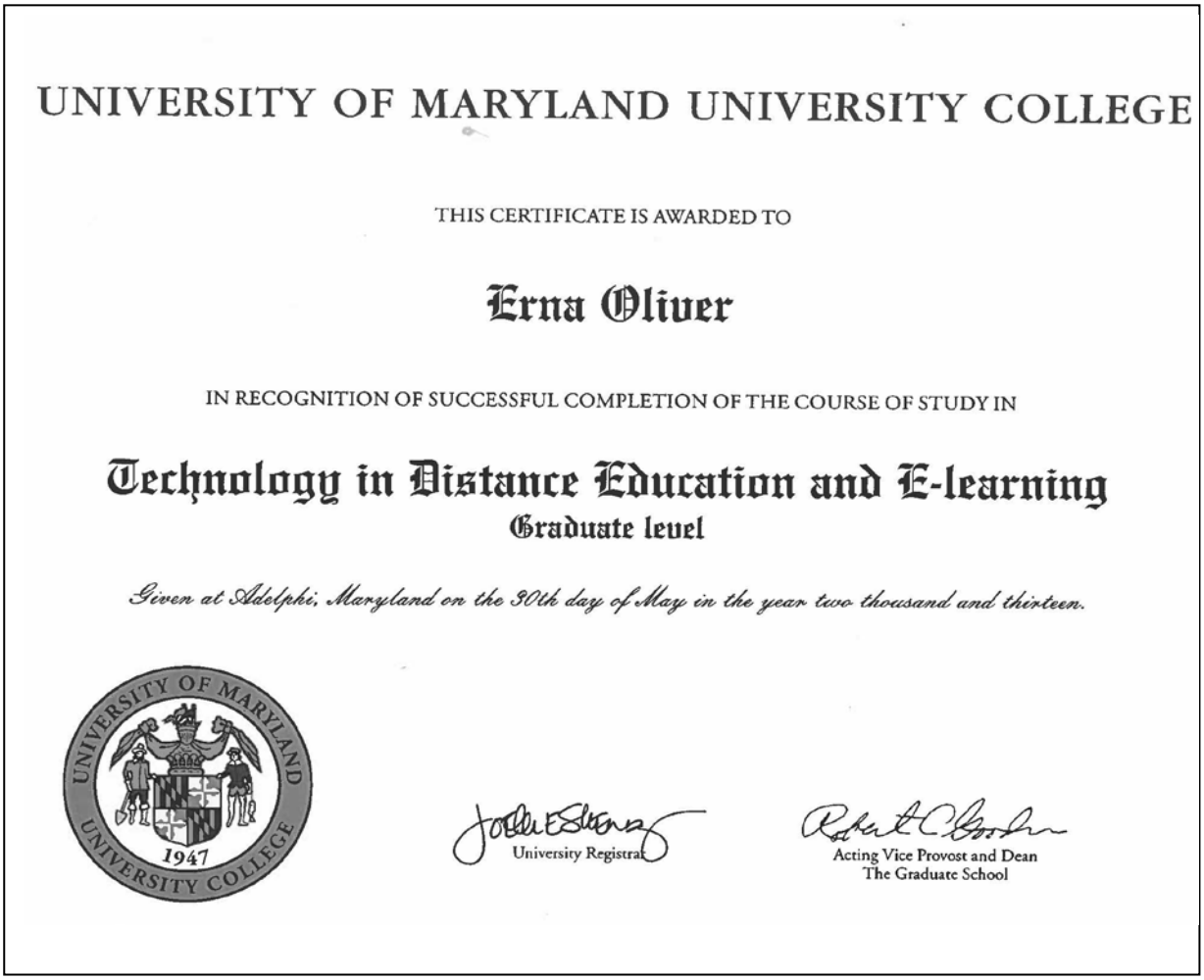
Prof VI McKay
Acting Executive Dean: CEDU

Dr M Claassens
CEDU REC (Chairperson)
mcdtc@netactive.co.za

Reference number: 2015 February /**34397906**/MC

18 February 2015

APPENDIX C: Certificate: technology in Distance Education and E-Learning, University of Maryland University College



UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE

THIS CERTIFICATE IS AWARDED TO

Erna Oliver

IN RECOGNITION OF SUCCESSFUL COMPLETION OF THE COURSE OF STUDY IN

Technology in Distance Education and E-learning

Graduate level

Given at Adelphi, Maryland on the 30th day of May in the year two thousand and thirteen.

UNIVERSITY OF MARYLAND 1947 UNIVERSITY COLLEGE

University Registrar

Acting Vice Provost and Dean
The Graduate School