

Re-designing the Road to Success Programme (RSP) as a Tutorial: Blended Mode



A research report submitted in partial fulfilment of the requirements for the degree of **Master of Education (in the field of Educational Information and Engineering Technology)**

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Abstract

Courses are still commonly characterised as *blended* without any relation to appropriate and pedagogically sound methodologies and practices. Merely adding an online component to the existing (face-to-face) classroom content should not be considered a ‘good’ blend. My argument in this thesis is that blended learning should be underpinned by sound theory, pedagogy and practice that extends the design and review beyond the mode (percentage online /offline and synchronous /asynchronous) discussion.

To ascertain how a Road to Success Programme (RSP) could be reviewed and redesigned as a blended learning offering, a rubric was created using definitions gleaned from the literature on blended learning, Constructivism as learning theory, blended learning models, design principles, approaches, practices and Community of Inquiry framework. In this qualitative study, I created and piloted a rubric as data collection tool to review the RSP course. I employed a phased approach to data analysis, starting with simple statistics (numbers), followed by qualitative summaries and a Community of Inquiry/CoI (social constructivist) theoretical and analytical lens. The main findings suggest that the pedagogical principles, particularly the teaching, social, and cognitive presence provide a useful framework both for the design and review of blended courses, to extend it beyond an online/offline exercise. The study recommends a deeper engagement with course design elements (beyond the organisation and teaching of content and the use of technology) to instead consider how these elements intersect with each other and how the review and redesign of blended learning offerings could be strengthened.

Keywords: *Blended Learning, Community of Inquiry, Constructivism, Course review, Road to Success Programme*

Declaration

I Kedibone Ivory Moagi declare that this report is my own, unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Education (in the field of Educational Technology) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

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Signature: 

Date: 18 March 2024

Dedication

This thesis is dedicated to my family for the encouragement and support.

Firstly, to my sisters' children. Lethabo Moagi, Vuthlari Mkhasi and Vutivi Mkhasi, koko Magadingwana (Grandmother) never ceases to remind us of the importance of education. I hope that through this thesis you will be inspired to continue being the best version of yourself for us.

To my parents, Maphokeng Simon and Deke Moagi. Thank you for providing me with a life full of love and opportunities to always learn and grow. I can never thank you enough for the solid foundation you set in my life, early on, which has helped me tremendously today.

To koko, Magadingwana Moagi. Thank you for always reminding us of that sekolo se botlhokwa "school is important".

Lastly, to my sisters Refilwe Mkhasi and Phumiso Moagi. Thank you for your love and for being my cheerleaders throughout this thesis.

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List of Abbreviations

RSP- Road to Success Programme

CoI- Community of Inquiry

CCDU- Counselling Careers and Development Unit

LMS- Learning Management System

ULWAZI- Pet name for the learning management system at Wits

Chapter 1: Introduction

1.1 Introduction

Developments in the field of education, particularly the use of technology in learning has transformed higher education. Since 2022, Wits has adopted blended learning as the predominant mode of educational provision. In the Wits context, blended learning must promote effective learning and enhance student engagement both online and face-to-face.

In this section of the thesis, I introduce the study: ***Re-designing the Road to Success Programme (RSP) as a Tutorial: Blended mode.***

The main objective of this study is to review the RSP course with a view to recommend instructional design principles that can be applied to redesign a blended learning tutorial for this course. The importance of reviewing courses resides in its potential to enable educators to identify the course gaps and opportunities. Such reviews provide insightful information for the purposes of course improvement. Albeit the context or circumstances, when the course is reviewed, educators are enabled to align course objectives, learning theories, instructional design principles and pedagogically sound practices. While reviewing the course design, a close cooperation to teaching, social and cognitive presence is required to ensure that it is set in a Community of Inquiry (CoI) framework as postulated by Garrison and Vaughan (2008).

The next section outlines the research problem, the purpose of the study, as well as the research objectives and questions.

1.2 Background and Context

In the 2023 Wits Teaching and Learning Plan, Wits University made a commitment to implement blended learning. The University state, “as in 2022, in 2023 and 2024 every course needs to have a well-designed Ulwazi site (learning management system) and educational activities that promote active learning and student engagement” (Wits university, 2023, p. 5).

In supporting the 2023 Wits Teaching and Learning Plan, the Faculty of Commerce, Law and Management developed a Road to Success Programme (RSP) course on the learning management system in order to “scaffold and support first-year students, particularly those at risk of being academically excluded, through an integrated network of tutorials, workshops, online support, and a series of resources called Toolkits for Success, in an attempt to help students achieve their academic goal” (De Klerk et al., 2017, p. 1). It is this course that I focus on for this study.

1.3 Problem statement

Although a wealth of information exists on developing courses for blended learning, instructional designers and practitioners are still struggling with the implementation of blended learning (Boelens et al., 2017). Numerous courses are still defined as being “blended” without appropriate and pedagogically sound methodologies and practices. Courses get the “blended label merely because of a segment of already existing classroom learning is supplanted with some online learning” (Bliuc et al., 2007, p. 234). There is little articulation of pedagogical strategies in (re)designing blended learning courses (McGee, 2015).

The theories and models or research-based instructional design for blended learning course design are barely used in support of the design processes (Valverde-Berrocoso & Fernández-Sánchez, 2020). Instructional designers still long for a method of obtaining a perfect blend. The following questions remain pertinent: How much of online and how much of face-to-face is considered the right blended learning? However, in my view, “Instructional designers must find the balance of time spent online and face-to-face” (Collopy & Arnold, 2009, p. 88).

Understanding how to utilise and infuse the technological tools and asynchronised and synchronised approaches to make learning more meaningful and relevant is critical, not the percentage online/face-to-face. Theories aligned to blended learning and quality rubrics for blended learning course design are important in determining how to combine the face-to-face and online components to achieve a perfect blended learning course. Institutions need to develop clear policies on how to support blended learning. Applicable and pedagogically sound blended learning are underpinned by the major and proven learning theories and the results of previous empirical research.

Moreover, institutions of higher education have been experiencing increases in online course enrolment over the last decade (Bastrikin, 2020). Garrison and Kanuka predicted that universities need to position themselves for an unprecedented technological development (Garrison & Kanuka, 2004). Higher learning institutions need to address learning in a different way. I align with the 2023 Wits Teaching and Learning Plan that states:

“We cannot turn the clock back, the world has changed, our students have changed, and we have changed, to revert uncritically to old, familiar ways would be to miss an opportunity for us to learn”
(Wits university, 2023, p.5).

Indeed, changing teaching practices (and/or cultures) remains difficult. Change is challenging by the necessity of moving from the familiar to the unknown, causing resistance and fear among lecturers (Coleman & Mtshazi, 2017). Institutions often implement blended learning without strategic planning and sufficient support. Additionally, policies related to blended learning are either implemented inadequately within institutions or outdated. Hence, a revision of the current teaching methodologies and mechanisms may be needed to uphold the thrust of providing learning opportunities to an ever-changing community of learners. Instructional designers may have to consider alternative methods of instructional design and provision mechanisms beyond the traditional classroom setting to satisfy the needs of the 21st century learner. It is time to progress from the perceptions of simply presenting content and assessing learners to a more holistic approach to learning in this era.

Through this thesis, the theories, frameworks, instructional design principles and quality rubrics for blended learning are used to review and determine good practices for designing blended learning courses. The thesis aims to contribute to the field of higher education and to the design and conceptualisation of blended courses.

1.4 Purpose of the study

As online learning continues to progress and create opportunities for multifaceted learning, there is a need to consider alternative methods of instructional design beyond the traditional classroom setting such as the lecturer or teacher-centered and/or direct instruction to more personalised learning. Personalised learning requires a shift in the role of the student, from a passive and note-taking role to the active-learner role, and the role of the instructor from being a lecturer to guiding students, and from instructor-centered to a student-centered environment (Hoic-Bozic et al., 2009; Twigg, 2003). Essentially, a shift towards balancing pedagogy and technology in teaching is required.

Consequently, to support the 2023 Wits Teaching and Learning Plan, the purpose of this study is to review the RSP course using a blended learning rubric and to identify the most suitable, relevant, and appropriate methods and underlying pedagogies necessary for redesigning a blended learning course. I offer recommendations on how to use contextually good practices of instructional design that can facilitate an interactive learning experience. The findings of this study may contribute to the understanding, implementation, and enhancement of course (re)design integrating both the face-to-face and online components to achieve learner success. Furthermore, suggestions are made on possible avenues future research made pursue to enhance current practices.

1.5 Research Objectives

The main objectives of this study are:

1. To review the current RSP Course
2. To recommend the instructional and design principles suitable for redesigning blended learning courses based on the review of the RSP course.

1.6 Research questions and sub-questions

The main research question is:

How can an existing Road to Success Programme course be reviewed and redesigned as a tutorial for blended mode?

The sub-questions to be addressed are:

- 1.1 Which learning theory and blended models underpins a blended learning course?
- 1.2 Which instructional and design principles can be applied to redesign a blended learning tutorial for RSP?
- 1.3 How can the Data collected from the blended learning Rubric provide recommendations for redesigning a RSP blended course?

1.7 Structure of the thesis

In **Chapter 1**, I introduce the research problem in blended learning courses, and discuss the lack of instructional design principles and the lack of theories that underpin the blended course. I end the chapter by raising the research questions.

In **Chapter 2**, I review the existing literature on the different definitions of blended learning, the theories that underpin blended learning, the instructional design principles and the blended learning rubrics used in course assessment and evaluation.

In **Chapter 3**, I introduce the research methodology. The Chapter introduces and explains the research design, the data collection instrument that was used to collect

and analyse the data, the detailed data analysis approach and lastly the limitations of the study.

In **Chapter 4**, I describe the interpretation and findings of data collected using the blended learning rubric. The analysis of the data is then followed by discussions and recommendations.

In **chapter 5**, I finalise the thesis with the recommendations and conclusion.

Chapter 2: Literature review

A literature review is a key step in research because it offers a perspective on the findings other researchers arrived at previously (Creswell & Guetterman, 2019). The purpose of the literature review is to provide information that supports the research questions, to identify gaps in the literature on the topic, and situate the research problem of the current study. Through this literature review the reader will gain an understanding of the key concepts related to blended learning, understand the theories that underpin blended learning courses, the instructional design principles and the rubric for the implementation and designing of blended learning courses.

In this chapter, I explore the concept of blended learning, its theories, and components, and gain an understanding of its implementation, its technological components, and tools, and of the rubrics used to evaluate blended learning courses. I draw on the work of Commonwealth of learning and Cleveland-Innes and Wilton (2018) who continuously provide guidelines on how to effectively use blended learning.

I conducted a search on several databases: Taylor and Francis, Proquest Central, Wiley Online Library and Ebscohost using keywords such as “Blended Learning,” “Best practices for instructional design,” “instructional design quality” and “rubrics for blended learning”. When conducting the searches, a vast amount of literature on blended learning dating back from 1998 was unearthed. There is limited information on how to review blended learning using rubrics, while there is ample content on reviewing and evaluating e-learning courses.

2.1 Defining Blended Learning

The term blended learning, blended e-learning or the combination of face-to-face and online learning has gained public interest in recent years. Although a vast number of definitions of blended learning exist, a generally accepted definition does not exist. The definitions of blended learning most frequently used in scientific publications are those by Graham (2006, p. 41), who stated that “blended learning systems combine face-to-face instruction with computer-mediated instruction” and by Garrison and Kanuka (2004, p. 96) who view it as “the thoughtful integration of classroom face-to-face learning experiences with online learning experience”.

Driscoll (2002) concurs with Graham (2006), in defining blended learning. Blended learning occurs in four different ways (Driscoll, 2002): (1) a combination of methods using online technology, (2) a combination of different pedagogical methodologies, (3) a combination of an instructional technology with face-to-face instructional-led training, and (4) a blend of instructional technology with real-life job assignments in order to create a harmonious effect of learning and working.

McGee and Reis’s (2012, p. 9) definition of blended learning “involves instructor and learners working together in mixed delivery modes, typically face-to-face and technology mediated, to accomplish learning outcomes that are pedagogically supported through assignments, activities and assessments”. The combination of online learning materials, discussion boards and e-assessment systems, with the conventional face-to-face education has been regarded as *blended learning*.

The issue with these definitions is the focus on what proportion of online and of face-to-face learning must be blended and the challenge of integrating both face-to-face and online learning. Garrison & Kanuka (2004, p. 97) posit that “the core issue and argument are such that, when we have solid understandings of the properties of the internet, as well as knowledge of how to effectively integrate internet technology with the most desirable and valued characteristics of face-to-face learning experiences, a quantum shift occurs in terms of the nature and quality of the educational experience”.

To address the issue of what the proportion of online and face-to-face that should be blended, Allen and Seaman (2006) used percentages to defining blended learning,

where 80% of the blending is being facilitated online and where 30%-79% of the content is facilitated online alongside with face-to-face (Allen & Seaman, 2006). One of criticisms of the definition of blended learning was made by Oliver (2005, p. 18), who argues that the term “blended learning lacks clarity with no indication of how new examples should be included or rejected and there are no principles underlying it”. My argument is that blended learning should extend beyond such superficial considerations.

Cronje (2020) critiques the dimensions of face-to-face and technology-mediated instruction for its inability to provide the adequate theoretical underpinning. He then defines blended learning as “appropriate use of theories, methods and technologies to optimise learning in a given context” (Cronje, 2020, p.120). Indeed, blended learning is not only concerned with the use of technology, but also with redesigning all the pillars of the education process.

While all definitions of blended learning remain useful, Picciano’s (2009) multimodal model offers an added dimension, which fosters self-directed learning. In comparison to the other definitions of blended learning, Picciano (2009) emphasises not the content, but the emotional and social support that students should receive. By blending objectives, activities and approaches within multiple modalities, instructors should be able to satisfy most learning needs of students.

Students, particularly those from previously disadvantaged backgrounds, struggle with self-directed learning in higher learning institutions. The challenge emanates from the deficiencies of the primary and secondary schools or Department of Basic Education curriculum. A study by Makokotlela (2022) found that teachers fail to develop the learners’ self-directed learning ability due to limited understanding of the concept. Makokotlela (2022) further emphasises that self-directed learning was partly not aligned with the ideas of the White Paper on e-Education (Department of Basic Education, 2004). In general, self-directed learning is difficult because teachers are given instructions by the Department of Basic Education/subject advisers on which content to teach in each week; hence removing “the use of what is known about learners, a priori or through interactions, to alter how a learning experience unfolds, with the aim of improving each learner’s success and satisfaction” (Howard et al. 2006, p. 1).

I align with the increasingly accepted definition of blended learning “as any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some of student control over time, place, path, and/or pace” (Horn & Stake, 2011, p. 3). In 2015, Horn and Stake added the following to their definition of blended learning: “The modalities along each student’s learning path within a course or subject are connected to provide an integrated learning experience” (Horn et al., 2015, p. 53). Blended learning offers continuous learning and allows students to dictate their **path** by determining the order in which the content is presented, to have some control over **time** by using asynchronous communication, to be **placed** where they can learn anywhere in the world and to self-**pace** through online technologies while being supervised within an educational setting with face-to-face learning opportunities.

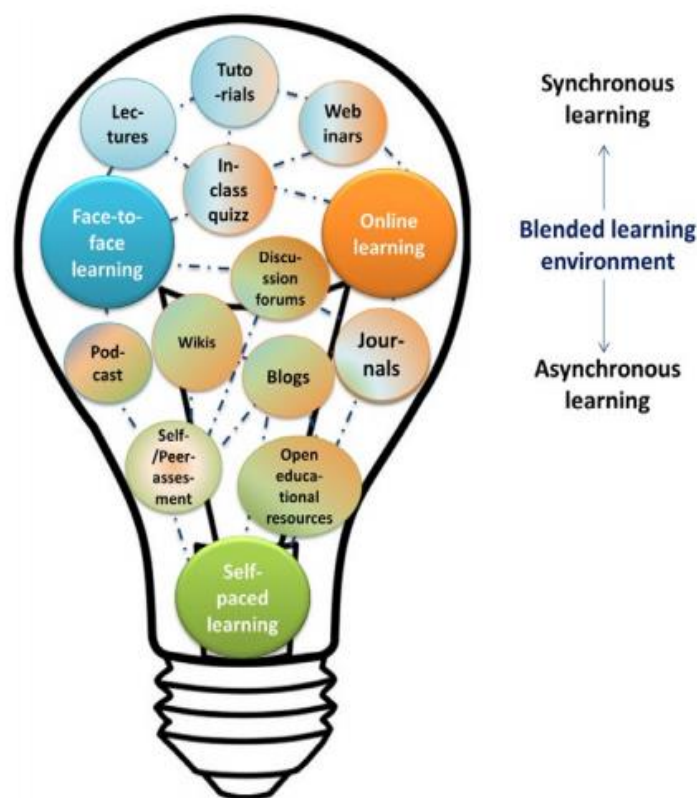


Figure 1: Blended learning environment (Serrano et al., 2019)

In figure 1, Serrano et al., (2019) defines what can be said to be the current aspects of blended learning as both the synchronous and asynchronous online approaches, where asynchronous learning is self-paced, and students complete their studies anywhere and anytime with no deadline (Serrano et al., 2019).

Additionally, teaching is done through videos and discussion forums (underpinned by sound pedagogy). The synchronous learning components is when learning occurs through e-learning tools such as videoconferencing and webinars (Serrano et al., 2019), allows greater accessibility than face-to face and overcomes physical barriers.

For this thesis, I use the definition of blended learning provided by the 2023 Wits Teaching and Learning Plan, which defines blended learning as “instruction that blends technological, temporal, spatial and pedagogical dimensions to create actualized learning” (Wits university, 2023, p. 5). Technological ranges from no or low-tech to technology supported to technology enabled; Temporal ranges from completely asynchronous (anytime) to time-restricted (within a specified window) to synchronous (at a specified time); Spatial ranges from specified locations (on-site) to anywhere (fully remote); Pedagogical ranges from teacher-centred (such as presentation-style lectures) to interactive (such as discussion classes) to student-driven (such as inquiry-based and problem-based learning) (Wits university, 2024, p. 6). According to the 2023 Wits Teaching and Learning Plan, a commitment to implement blended learning means that every course needs to have a well-designed Ulwazi site (Ulwazi being the in-house, pet name for the learning management system) and educational activities that promote active learning and student engagement. The plan for blended learning is for “in-person classes to be more interactive and experiential and engage students in active learning that encourages interaction within peers and lecturers” (Wits university, 2023, p. 5). Lecturers must provide video recordings of their presentations, whereby learners can access them asynchronously. When lecturers provide videos and presentations asynchronously, it then takes away the criticism of learning management systems being used merely as a repository (Ng et al., 2020).

Although the definitions of blended learning develop, academics and instructional designers may (dis)agree on its characteristics, its benefits are simple: the infusion of technology to support face-to-face learning and to provide flexibility “in extending study to the learners’ most practical and convenient time, place and style, offering a learner-centered approach through a variety of pathways that students can choose from in collaborative online lessons and activities” (Mesh, 2016, p. 96).

Thus, as blended learning becomes more pervasive in higher learning institutions, I argue that it is important that instructional designers and academics understand the conditions in which it can be implemented in pedagogically sound ways.

2.2 Theory in Design standards

In this section, I explore a learning theory that can aid in the design and implementation of blended learning. Understanding the key concepts and what makes blended learning successful are important for making better decisions when implementing blended learning (Cleveland-Innes & Wilton, 2018). There exists several schools of thought in education on the learning process as implemented through a learning theory. Cronje (2020) argues that blended learning must provide a blend of learning theories and technologies, and that no theory applies exclusively to the development of blended learning courses. A blend of theories, methodologies and pedagogies is suggested.

A theory of learning aims to help understand how people learn (Harasim, 2017). The theory employed determines what the researcher sees, what they consider important and how they will design and implement their practice. According to Mayes and De Freitas (2004), to ensure sound pedagogical design, one cannot get away from considering learning theories to shape the instructional design. The selection and implementation of any design rests in the designer's understanding of learning theories and information technologies.

Christensen (2008) elaborates that instructional designers should not rush to use a theory just because it is current, but their focus should be instead on which theory best suits the problem at hand (Christensen, 2008). Such a pragmatic, yet theoretically sound approach requires one to ask: Does this theory or model reveal a useful new idea that distinguishes itself from others? Driscoll (2013) argues that a theory should not be viewed as a complete or finite answer to a knowledge problem, but as a path to better understanding (Driscoll & Burner, 2005) and as a sense-making mechanism. Understanding the foundational basis of the constructivist theory, for example, is important for blended learning.

One of the harshest critiques of blended learning is its reliance the instructor to create and provide the learning information, rather than allowing the student to guide their own learning (Oliver & Trigwell, 2005). However, the constructivist theory addresses these criticisms.

The constructivist theory of learning stems from the works of Piaget and Vygotsky. From a constructivist point of view, people actively construct new knowledge as they interact with their environments (Kurt, 2021). Their argument is that the fact that learners come to the classroom with prior knowledge influences their responses to new knowledge. Vygotsky (1978) theorised that individuals learn through person-to-person interactions. Furthermore, based on these assumptions, the students engage more in building and creating knowledge, both individually and collaboratively, based on their personal experiences and understanding of information.

Social constructivism reframes constructivism from a social experience perspective. Vygotsky (1978) theorised that individuals learn first through person-to-person interactions and then individually through a series of internalisation processes leading to a deeper understanding. He emphasised how meanings and understanding grow out of social encounters. These social interactions were the focus of Vygotsky's work, as he believed it was in these interactions that higher individual cognitive development occurred. He introduced the Zone of Proximal Development where he posits that children must engage in social behaviour to develop. He argued that there must be full social interaction, and everyone must be involved in the problem: the learner, the teacher, and the content. The constructivist view of learning has teaching approaches, which includes learner autonomy, active engagement, and collaboration.

The constructivist approach in blended learning encourages discussion forums. Hence, constructivism must be applied as a guiding principle to blended learning courses, to increase students' connectedness to the learning process and the students' ability to collaborate with peers and instructors, both synchronously and asynchronously. Thus, students can interact and engage in the discussion forums, as online discussions allow ideas to grow over the course of several days. Additionally, students can "create knowledge collaboratively by adding to each other's ideas or integrating those ideas" (Akyol & Garrison, 2011). The constructivist approach to blended learning triggers questions that can support progression into higher levels of

cognitive inquiry. Garrison and Kanuka (2004) emphasise the role of the teacher in moderating and shaping the direction of the discourse.

2.3 Flipped blended learning model

According to Valverde-Berrocso and Fernández-Sánchez (2020), before one designs a blended learning environment, a blended learning model must be identified. There are many ways in which one can blend the classroom, which Staker and Horn (2012) categorise into four models; namely the rotation model, the flex model, the self-blend model, and the enriched virtual model. The Rotation model includes four sub-models: Flipped Classroom, Station Rotation, Lab Rotation, and Individual Rotation.

There exist several ways in which a classroom can be blended. One of the ways is through the flipped classroom model. The flipped classroom model addresses the problem of what “proportion of online and face-to-face must be blended”? It balances the pre-class activities, in-class activities and the online activities.

Pre-class activities	Number of activities	%	Within class-activities	Number of activities	%
Online lecturers	11	45.8%	Case studies	8	33.3%
Online videos	9	37.5%	Powerpoint slides	7	29.2%
Textbook	7	29.2%	Problem solving activities	7	29.2%
Online Quiz	5	20.8%	Quizzes	7	29.2%
Power point lecturers	5	20.8%	Peer Discussion	6	25%
Online discussions	3	12.5%	Role Playing	4	16.7%

Interactive online modules	3	12.5%	Ask questions	4	16.7%
Self-directed and asynchronous learning	2	8.3%	Lecturers	3	12.5%
Evidence based Journal Articles	1	4.2%	Small group work	3	12.5%
Online case studies	1	4.2%	Interactive and creative	3	12.5%
Educational materials	1	4.2%	Learning activities	3	12.5%
Peer reviewed journal articles	1	4.2%	Critical thinking activities	3	12.5%
Vodcast	1	4.2%	Teacher via myoutime	3	12.5%
Animations	1	4.2%	Feedback	3	12.5%
Via myoutime	1	4.2%	Teacher discussion	2	8.3%
Share opinions	1	4.2%	Share opinions	2	8.3%
Group project	1	4.2%	Student presentations	1	4.2%
			Crossword Puzzles	1	4.2%
			Podcast with worksheets	1	4.2%
			Skill exam	1	4.2%

			Brainstorms	1	4.2%
			Group projects	1	4.2%

Table 1: Proportions of online and face-to-face activities (Özbay & Çınar, 2021)

Özbay and Çınar (2021) study in table 1 indicates how to balance the online and face-face proportions. In the flipped classroom, students rotate on a fixed schedule between face-to-face, teacher-guided practice in a classroom and a remote location for online learning. The flipped classroom model would adhere to the Wits University's teaching principle of engagement between staff members and students to promote student learning. The flipped classroom fosters the student ownership of learning through the completion of preparatory work and the ability to be more interactive during actual class time (McLaughlin et al., 2014). It streamlines the actual class time for robust discussion and associated problem-solving activities related to the resources (Burgoyne & Eaton, 2018). Hence, class time is utilised for teachers to engage actively with learners to reflect on the content learned (Garrison & Kanuka, 2004).

The students, not the teacher/tutor, initiate these discussions. Additionally, this model shifts the teacher's role to being more of a facilitator of learning. The teacher's new role of being a facilitator allows for more opportunities for remediation and makes students more accountable during their individual learning processes. For example, integrating images, videos, and electronic cooperative learning activities may help learners to relate to their prior experiences, and participate more actively in their own learning process. Students can come to the class prepared and be able to do their assignments as a group under the guidance of the teacher/ tutor, resulting in an improved student motivation.

Horn et, al. (2015) emphasise that the flipped classroom is not simply web-based homework practice. The flipped classroom model adheres to the definition of blended learning in that students must determine the time, place, path, and/or pace of learning. The flipped classroom approach includes reversing the traditional educational setting by assigning learning activities prior to class attendance in preparation for applying the content during class meeting (Burgoyne & Eaton, 2018). The main idea corresponds

to the constructivist theory of learning, where class time is used for more active learning and engaging activities, while lecturing moves to short videos that the students watch at home before coming to class.

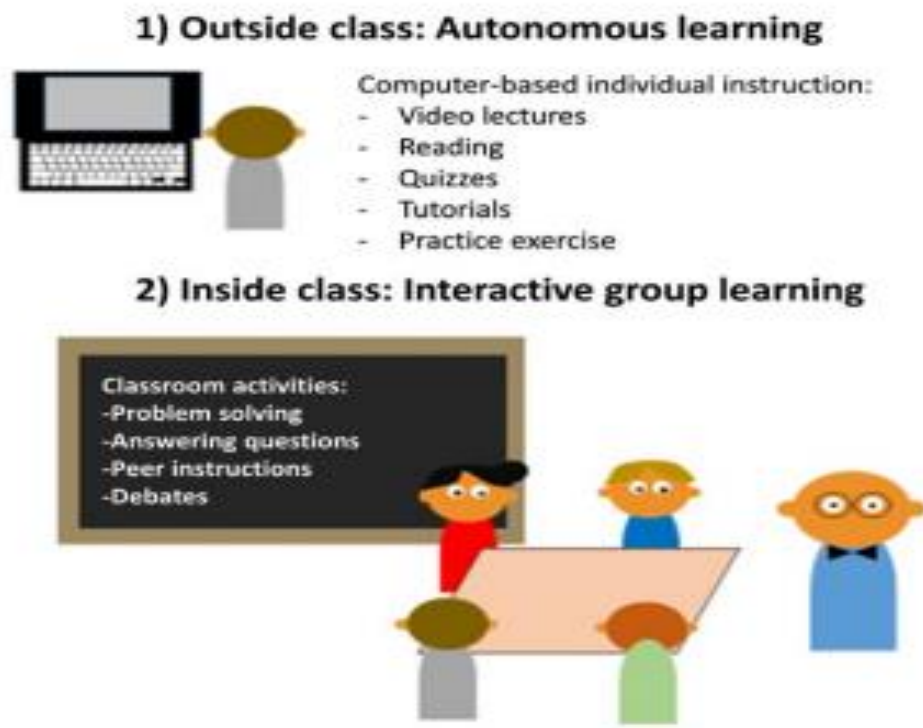


Figure 2: Flipped classroom (Serrano et al., 2019)

In figure 2, Serrano et al. (2019) defines flipped classroom as the combination of self and peer assessment by completing the online activities in the form of reading materials before the face-to-face session. These activities include problem solving, peer instructions, quizzes and clicker questions. The first stage is done outside the classroom at home, where learners collect information and learn concepts through video lectures, reading or practice exercises. The second stage is done in the classroom where learners discuss, analyse, and evaluate the concepts they learned from home.

2.4 Instructional design model

According to Gustafson and Branch (2002), a good instructional model should have at least four components:

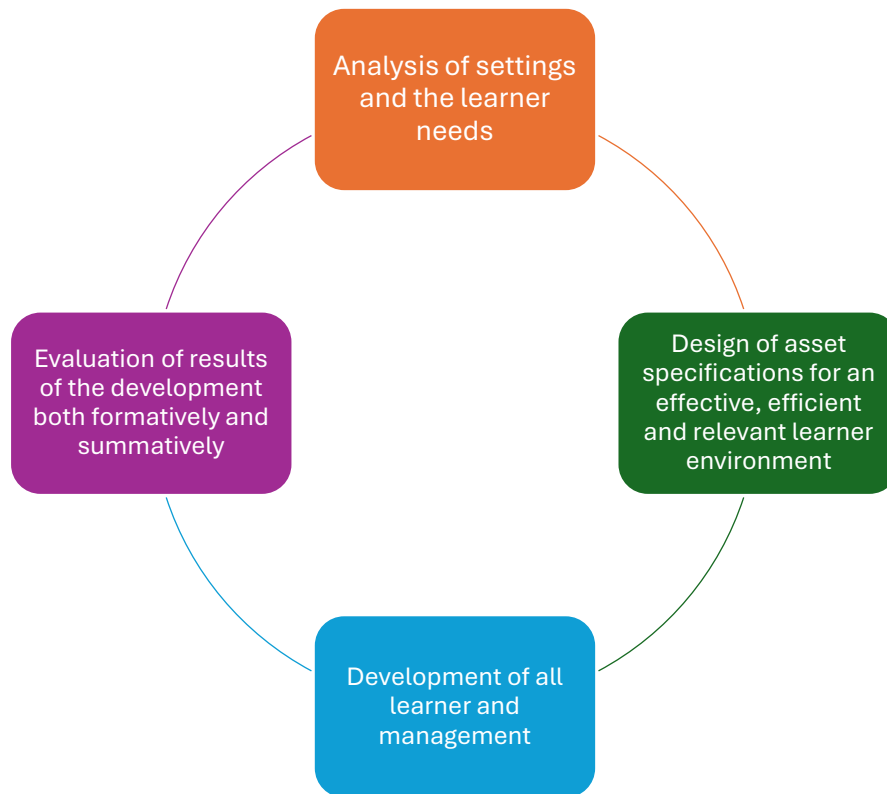


Figure 3: Components of Instructional Model (Gustafson & Branch, 2002)

These components are critical in helping designers create online learning focused on the context for which it is intended. Specifically, these components are extremely crucial in helping designers with this ever-changing learner needs and improvement of technology and the changing environment to one of student-centered, self-driven and dynamic interactive learning. Most instructional design processes include five phases: Analysis, Design, Development, Implementation and Evaluation also known as ADDIE. Branch (2009) described this process as an “iterative process of planning performance objectives, selecting instructional strategies, choosing media and selecting or creating materials, and evaluation” (Branch, 2009, p. 8). “Iterative process is nonlinear; offers the opportunity to return to parts of the process and make changes due to knowledge gained in other parts of the process” (Branch, 2009, p. 187)

As Gustafson and Branch (2007, p. 21) stated, this process will “ensure congruence among goals, objectives, strategies and valuation and the effectiveness of the resulting instruction”.

Instructional designers can customise an online learning environment by utilising the ADDIE model. The ADDIE model is a commonly accepted model, which was designed in the 1980's by the Center for Educational Technology at Florida State University (Kurt, 2017). It is considered as the foundation for many other modern instructional design models. In other words, all instructional models contain the core elements of ADDIE.

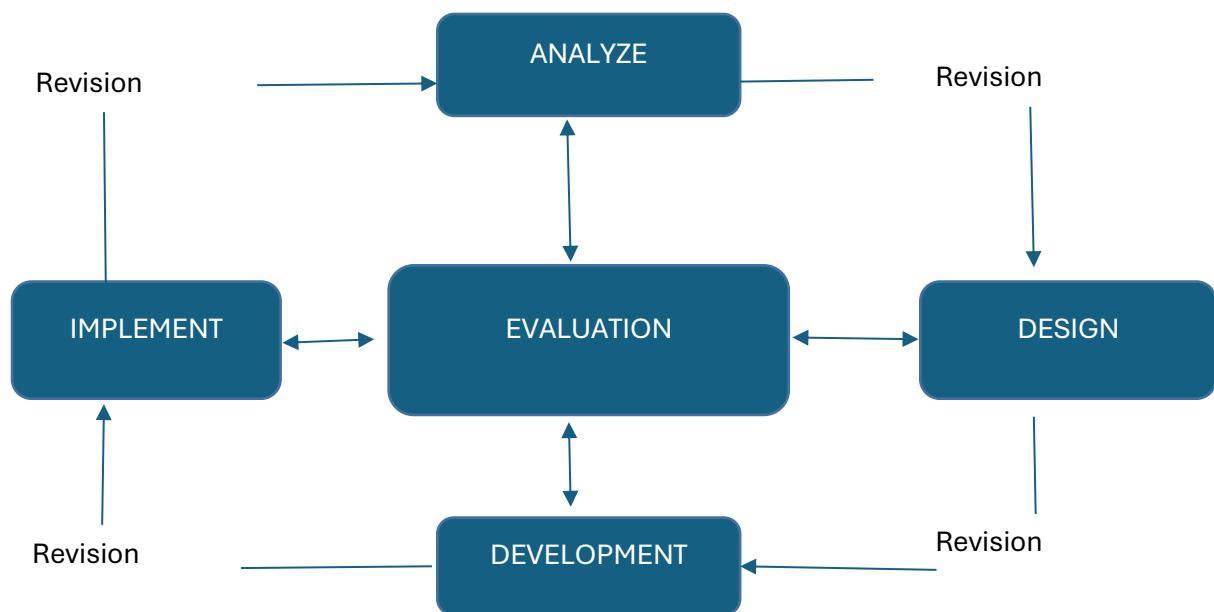


Figure 4: ADDIE Model Iterative process

Twenty first century instructional designers have found that ADDIE is not always useful in designing online instruction. The reason for this is that Instructional Designers (IDs) used the model in a top-down, linear fashion, without accommodating the flexibility needed in an interactive online environment. It is worth pointing out that instead of progressing on an uninterrupted linear continuum, the ADDIE model includes iterations that involve evaluation (quality checks) at each phase.

All five phases are connected and each of the first four phases connect to the evaluation and revision phase (Drljača, Latinović, Stanković, & Cvetković, 2017). Additionally, revision occurs throughout the process as shown in figure 5. In explaining

the process of ADDIE, Gustafson and Branch (2007) also pointed out five characteristics of ADDIE that should emerge as the process is deployed.

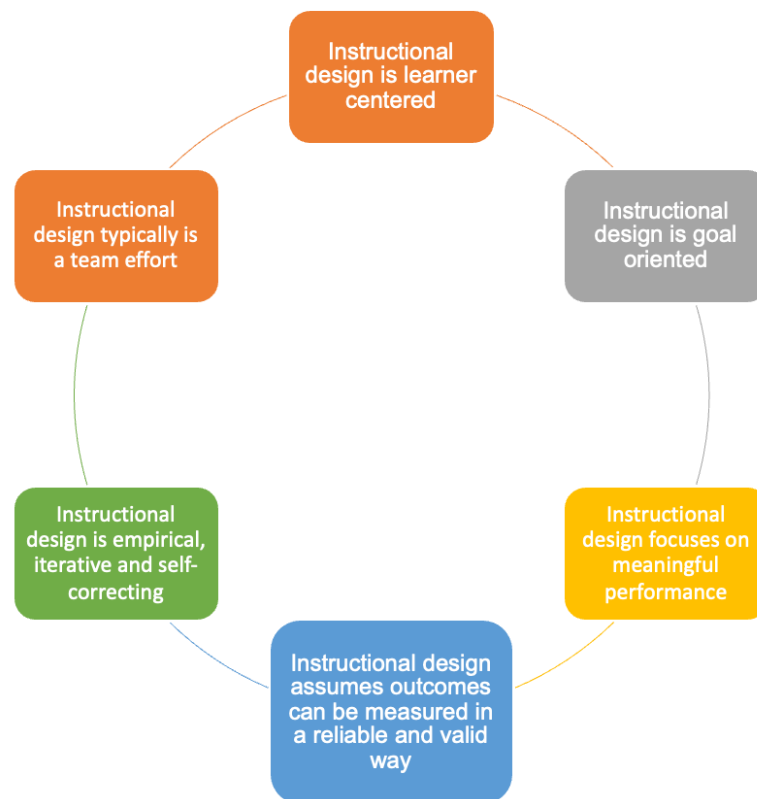


Figure 5: Characteristics of ADDIE Model (Gustafson & Branch, 2007)

These characteristics adhere to the constructivist view of learning. The constructivist learner-centeredness affords the designer the flexibility in choice and order of each element while still preserving the features, elements, and process of the ADDIE structure. The fifth characteristic specifically speaks to this study as the redesign of this course depends considerably on the tutors' and coordinators' context.

Shelton and Saltsman (2011) suggested the use of specific techniques while implementing ADDIE to the designing of an online class. Firstly, **analyse the learners, their learning goals and learning objectives in the analysis phase**. In the case of reviewing the RSP course, course goals and learning objectives already exist and may not need modification. As the course developer, one should seek answers to the following questions in the analysis phase: Why does this course exist? What does it

seek to accomplish? Who is the course for? What are the learning objectives? In what ways does this course fulfil degree requirements?

Secondly, **review existing online courses and provide easy navigation for required online activities in the design phase.** Before designing an online course, it is helpful for instructors to view the courses already on offer online. Not only does this familiarise the course developer with the basic components of an online course, but it also usually inspires ideas that generate excitement about the design process. In this phase, there must be clear definitions of the following: contact information, course objectives, attendance requirements, a late work policy, the course schedule, orientation aids, grading scales and rubrics, communication practices, technology policies and overall course design.

Thirdly, choose appropriate text as a primary source for teaching in the development phase. The development stage will include a review of the course objectives, an analysis of the textbook, content module development and content chunking, the creation of content, the development of learning objects, student assessment and additional resources. The chunking of material whereby it is broken into small, understandable lessons for the students to absorb.

Fourthly, **encourage communication, create appropriate groups, facilitate discussion and collaboration online and respond to students' questions quickly in the implementation phase.**

The course should begin with a welcoming e-mail and announcements.

Lastly, use published rubrics for online learning in the evaluation phase. Evaluation is a time of reflection and satisfaction for a job well done. At this stage, teachers/tutors should assess each student's performance against course objectives, including what worked well and what should be improved. Students should be aware of the grading criteria and be allowed to self-evaluate wherever possible.

2.5 Designing and reviewing blended learning course.

There is limited research on quality rubrics for blended learning courses designed for online and face-to-face, as opposed to rubrics for fully online learning courses.

According to Smythe (2012) a defining instrument to evaluate quality is one of the key challenges for blended learning as it incorporates both face-to-face and online

methodologies. Legon (2015, p. 166) asked the question “Can you prove that applying the Quality Matter Rubric to an online course improves outcomes—retention, grades, learner satisfaction?”. Based on “2,665 completed course reviews in the Quality Matter database over the three-year period from 2011 to 2014, 69% of courses submitted met the standard without revision, 25% required modest revision (scores of 70 points or higher), and only 6% required a major reworking to meet standard” (Legon, 2015, p. 167). According to the Commonwealth of Learning, a rubric should be used throughout the design and developmental stages of the blended learning course (Perris & Mohee, 2020).

The main function of a rubric is to serve as a tool to evaluate and assess the effectiveness (considering its contextual relevance) of blended learning courses and to offer a framework for determining the main components of a quality design in blended learning courses. I now turn to the search on databases such as Ebscohost, Proquest Central and Wiley online library on blended learning rubrics.

Quality Matters Higher Education Rubric is based on research supported and published best practices (Legon, 2015). It was designed to promote continuous course improvement over time. The 2020 Quality matters rubric has a set of eight general standards used to evaluate the design of blended learning courses: (1) Course overview and introduction, (2) Learning objectives, (3) assessment and measurement, (4) Instructional materials, (5) course activities and learner interaction, (6) course technology, (7) learner support, and (8) accessibility and usability. Despite being the object of mostly positive perceptions, the QM rubric could be improved in some ways.

For example, Gregory et al. (2020) raised some concerns about the Quality Matters rubric. Primary concerns included a perceived subjectivity in the standards, the rubric’s failure to evaluate content, and an overall inability to ensure a high-quality course upon delivery (Gregory et al., 2020). Lowenthal and Hodges (2015) also raised some concerns that a simple designed course can pass as a quality course, which implied that Quality Matters rubric might focus on the basics and not sufficiently on the instructional design and methods. In my experience, the rubric was tested in the European context and may not be contextually relevant for the South African context.

Quality Assurance Rubric for Blended Learning by Commonwealth learning is a rubric designed to support institutions in developing blended learning courses (Perris & Mohee, 2020). It consists of 8 categories: (1) Navigation, (2) content, (3) course structure, (4) instructional design, (5) student support, (6) technology/media, (7) assessment, and (8) quality assurance and evaluation. Perris and Mohee (2020) felt that the rubric has not been used to its fullest intent. Furthermore, the “utilisation of the rubric as a formative tool for scrutinising the course from conception to finalisation had not been followed, and subsequent instructions clarified that the tool was to be used iteratively” (Perris & Mohee ,2020, p. 16).

Quality Online Learning and Teaching is a rubric developed by the California State University (Debattista, 2018). It is used to measure the effectiveness and quality of online courses and consists of 58 objectives in ten sections, which in my view makes it very tedious and difficult to implement:

- Section 1: course overview and introduction (eight objectives)
- Section 2: assessment of student learning (six objectives)
- Section 3: instructional materials and resources (six objectives)
- Section 4: students' interaction and community (course design) (seven objectives)
- Section 5: facilitation and instruction (course delivery) (eight objectives)
- Section 6: technology for teaching and learning (five objectives)
- Section 7: learner support and resources (four objectives)
- Section 8: accessibility and universal design (seven objectives)
- Section 9: course summary and wrap-up (three objectives)
- Section 10: mobile design readiness (optional) (four objectives)

Comparison of rubrics used for blended learning courses		
Quality Matters Higher Education Rubric	Quality Assurance Rubric for Blended Learning	Quality Online Learning and Teaching
Course overview	Navigation	Course overview and introduction
Learning objectives	Content	Course summary and wrap -up
Instructional materials	Instructional design	Instructional materials and resources
Assessment and measurement	Assessment	Assessment of student learning
Course activities and learner interaction	Course structure	Students' interaction and community
Course technology	Technology/Media	Technology for teaching and learning
Learner support	Student support	Learner support and resources
Accessibility and usability	Quality assurance and evaluation	Accessibility and universal design
		Facilitation and instruction

		Mobile design readiness
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Table 2: Comparison of rubrics for blended learning courses: Quality Matters, Quality Assurance and Quality Online Learning and Teaching

2.6 Theoretical Framework and Community of Inquiry (CoI) as Analytical Tool

The theoretical framework of this study is derived from the literature review about blended learning and its effective practices. Agherdien, Henning and van der Westhuizen (2007, p. 20) argue that

Such frameworks are epistemological devices that account for the knowledge that is produced in a study. They also account for the type of design of an inquiry. They locate the position that a researcher takes in accounting for knowledge-interpretation and knowledge-making. Our sense is that without a theoretical framework, a study has little recourse to accountable reasoning.

I frame this study from the theory Community of Inquiry (CoI). This theory has been used extensively within the research and practices of blended learning as it provides a basis for understanding blended learning and its practices. It is a valid and trustworthy instrument that can be used to support the design, evaluation, implementation of effective blended learning courses (Pool et al., 2017). The philosophical foundation of the "CoI framework is collaborative constructivism and, theoretically, it is grounded in the research on deep and meaningful approaches to learning" (Garrison et al., 2010). Garrison (2010) strongly argues that even with strong variability amongst the tutors and individual learners, any type of presence will manifest itself in an effective and collaborative CoI.

Community of Inquiry has three components used to engage and enrich students' blended learning experiences: social, cognitive and teaching presence. These components describe how learning occurs for a group of individual learners through the educational experience. The "teaching presence area explores the design,

facilitation and guidance of student learning to achieve specific outcomes”, the “cognitive presence area explores how students construct and confirm meaning through activities” and the “social presence area explores how students identify with the community, how they communicate and build relationships” (Krull, 2020, p.1). In the teaching presence it is important to communicate clearly and explicitly with students to convey clear expectations on how teaching and learning will occur. With cognitive presence, students must be provided with regular activities that engage them in meaning and sense making to ensure progress (Krull, 2020, p.1). Lastly, in the social presence forms of communication, efforts should be made to welcome students, i.e. by creating a welcome video. Moreover, a discussion forum can be created for all students to post general questions. The lecturer’s emails and consultations hours should be available to ensure visibility online and face-to-face.

Both the teaching and social presence directly connect and develop the cognitive presence of the learner.

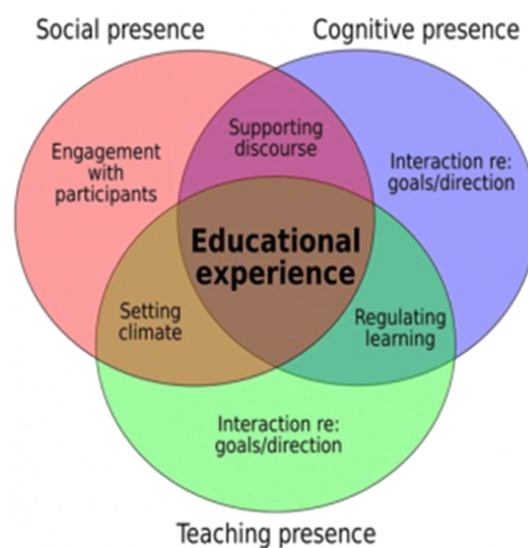


Figure 6: Community of Inquiry Model (Fiock, 2020)

Blended learning courses designed under the guiding principles of Community of Inquiry are very successful in creating a successful and enriched learning environment (Vaughan et al., 2013). Garrison and Kanuka (2004) found that the blended learning environment is highly effective in supporting a Community of Inquiry. Specifically, the identified strengths of blended learning courses include group cohesion, higher levels of inquiry, and higher rates of student satisfaction. The Col framework “supports guided inquiry by identifying teaching activity, provides guidance, based on theory and

practice, on content and process of blended learning” (Cleveland-Innes & Wilton, 2018, p.13).

The study used the Community of Inquiry framework as a lens to understand and guide the practices in reviewing and redesigning of blended learning courses. The framework assisted in ensuring that the three components teaching presence, social presence and cognitive presence are present in the learning activities of the RSP course. Community of Inquiry considers how these three components interact with each other and how such interactions result in effective learning and enhanced student engagement both online and face-to-face.

The framework also helped in developing the categories used in the rubric and mapping them into the three components, whereby the teaching presence reviewed the course structure, instructional design, course/content information and navigation categories; the social presence reviewed the interaction, collaboration and communication and technology/multimedia categories; and the cognitive presence reviewed the assessment and feedback category. These aspects ensured that while collecting the data all these Community of Inquiry components are present in the RSP course.

Chapter 3: Research Design and Methodology

3.1 Introduction

This chapter outlines the research methodology of the study. It introduces and explains the research design, the data collection instrument used to collect and analyse the data, the detailed description of the data analysis approach and lastly the limitations of the study.

3.2 Research Design

A research design is a “procedure for conducting research within the broad methodologies or approaches of quantitative, qualitative and mixed methods” (Creswell & Creswell, 2023, p. 33). This study reviews the current RSP course for blended learning. The study led to the development of a valid and reliable instrument that could assess the current RSP course for a blended learning redesign. For the study, I used the inductive approach as opposed to deductive approach. Creswell (2023, p. 71) emphasis that “qualitative research typically works inductively, building patterns, categories, and themes from the bottom up by organizing the data into increasingly more abstract units of information”.

I began the study by identifying the research problem and posing the research questions. I then reviewed the existing knowledge on blended learning theories, models, instructional design principles, conceptual framework, and blended learning rubrics. Lastly, I collected data and reviewed the data from the RSP course.

The study then used a predominantly qualitative method, with a small quantitative component. Qualitative research was used to carry out an investigation in a natural setting to determine the best practices for redesigning a blended learning course. Qualitative research “involves emerging questions and procedures, collecting data in the participants’ setting, analyzing the data inductively to build from particulars to general themes, and making interpretations of the meaning of the data is a means for exploring the meaning individuals” (Creswell & Creswell, 2023, p. 233). The qualitative

aspects of the RSP course analysis were integrated to ascertain a summative conclusion of the course.

Although the rubric used a quantitative method to review the RSP course, its validation was primarily qualitative. However, it must be emphasised that the study does not use a mixed research method approach (which in principle employs aspects of both quantitative methods and qualitative procedures). By using a qualitative method, with a small quantitative component, a degree of comprehensiveness may be achieved, which neither approach can achieve, if used alone. The simple statistics included does not qualify this study as a mixed methods study. The small component of quantitative data consisted in measuring or scoring various criterion on the rubric. Quantitative research is “a means for testing objective theories by examining the relationship among variables, the researcher measures the variables using statistical procedures” (Creswell & Creswell, 2023, p. 233). Quantitative research often translates into the use of numerical statistical analysis to make the connection between what is known and what can be learned through research. The use of quantitative analysis enables the researcher to generate visual representations of the data using tables and formulas.

The scores were measured and then analysed using simple descriptive statistics. Descriptive statistical analysis and the graphical presentations of the data were developed using Microsoft Excel. The structure of the final written thesis comprises the introduction, literature and theory, methods, results, and discussion.

3.3 Data collection instrument

This study used a rubric for assessing and reviewing the RSP course on Ulwazi, which is the learning management system for the blended learning course. A rubric is “a template that is used as an evaluation instrument that assists in improving teaching, contributing towards a sound assessment and is seen as a source of improvement” (Wolf & Stevens, 2007, p. 4). A blended learning rubric serves as a guideline to developing blended learning courses. Smythe (2012, p. 2) describes a rubric as a “tool for periodic evaluation and improvement”.

Functions of the rubric	Purpose of the rubric
Self-evaluation tool	-To provide a framework for new courses -To inform reworking of an existing course
Institute-wide evaluation tool	-As a means to assist in the development of “quality online courses
Exemplars	-To identify good practices in online learning courses and recognize those that are creating quality courses

Table 3: Uses for evaluation rubrics (Smythe, 2012)

I used Information garnered from different blended learning rubrics to construct new and improved categories for blended learning. In addition to the literature review, a search was conducted using search terms such as quality blended learning course design rubric, blended learning design checklist and instructional design quality to investigate existing blended learning course evaluation instruments. This investigation resulted in the design of new categories and components for the rubric.

3.3.1 Development of the Data Collection Instrument (Rubric)

The rubrics compared in Table 2 (refer to page 23-24) have common categories that cover the most basic elements susceptible of providing effective learning and teaching. After reviewing several blended learning course rubrics, this study developed a rubric (data collection instrument) on the following categories, divided into pedagogy and technology:

(1) Course Structure, (2) Instructional design, (3) Assessment and feedback, (4) Interaction, collaboration, and communication, (5) Navigation, (6) Content/content information, (7) Learner/student support and (8) Technology/multimedia

The choice of these categories was not random nor arbitrary. They were selected based on comprehensive empirical support and alignment with widely accepted practices in instructional design. These categories are meant to foster student engagement and deep content understanding.

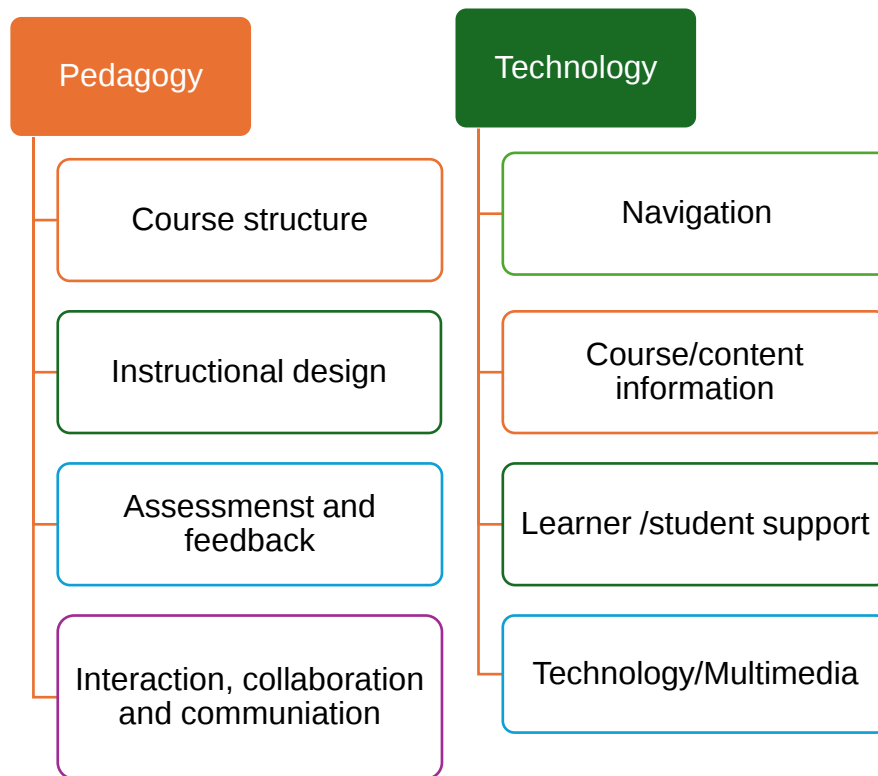


Figure 7: Categories for reviewing and evaluating blended learning course

The categories are divided into two: Pedagogy (what and how of teaching) and Technology (the use of technology to foster student engagement) components. These categories are deemed essential for redesigning and developing a quality blended learning course. They can assist in achieving the associated learning objectives and foster meaningful engagement for students.

After reviewing the three rubrics, the following categories were removed: Accessibility and usability, quality assurance and evaluation, mobile design and facilitation and instruction. The course technology was replaced by the category technology and multimedia. Feedback was added to the assessment category (assessment and feedback). The new rubric was preferred to provide clear and detailed descriptions and scoring guides that support instructional designers in making informed decisions about how to design blended learning courses. The next section discusses the revised blended learning rubric categories.

Course Structure

The course has been thoroughly conceptualised to reflect good practices in organisation, presentation and aesthetic. The course structure is flexible, allowing for easy updating of content in units, activities, assignments and learning materials. The learning pathways have been described for the students. The creation of learning pathways enables students to engage with content in chunks. It also functions as a roadmap that guides student progress. Smith (2014) describes four different ways in which content can be structured/organised: (1) Chunking -which can be separated into relatable and short learning segments. It assists students to understand the content, while allowing them to comprehend, explore and learn quicker;(2) repeatable- students must be able to repeat and view content; (3) pau-sable-students must be able to stop and resume without having to start over; and (4) understandable-students must be able to comprehend the content.

Instructional Design

The content is pedagogically sound. The course is organised by units and lessons that are arranged in a logical sequence. The course instruction includes activities that engage students in active learning. Learning activities provide opportunities for interaction (student– student, student–instructor, and with materials / technology) that support active learning, with a focus on multiple pathways. The course “allows students to engage in higher order thinking and critical reasoning activities” (Kipp & Patrick, 2013, p. 24). The sub-dimensions are; instructional and audience analysis, Course unit and lesson design, instructional strategies and activities, Communication and interaction and resources and materials.

Assessment and feedback

Assessment is an important component in learning. It shows the students’ progress and their understanding of concepts and content of the course. Using multiple assessment strategies and activities, it gauges the students’ readiness for and progress in course content and provides students with feedback on their progress

(Valverde-Berrococo & Fernández-Sánchez, 2020). It includes sub dimensions: evaluation strategies, feedback and assessment.

Both summative and formative assessments must be provided to students. Formative assessment enables ongoing evaluation. Summative assessment assist in measuring learning. There are many multiple methods of assessment in blended courses, i.e. quizzes, discussions, debates, essays, tests, and self-assessments. Assessments need to be continuous to allow students to track their progress.

Students must be provided with timeous and clear feedback. The latter can be provided in class, via audios and text based. It enables underperforming students to improve in their performance (Jacobs, 2014).

Interaction, collaboration, and Communication

Palloff and Pratt (2010, p. 4) describe “interaction and communication as where there is a student-to-instructor, student-to-student and student-to-content interaction”. Interaction is related to the promotion of the learner’s feeling of belonging to a community of learners that are supported and motivated through learning and communication activities.

Collaborative learning is a pedagogical approach that has its roots in constructivism (Stacey, 2005). Interactions, whether learner-learner, learner-instructor, learner-content promote higher levels of cognitive learning. Vygotsky (1978) argues that learning does not happen in isolation but through interactions. These interactions include participation in discussions, timely feedback provision and the provision of support and encouragement.

Technology affords students to communicate with millions of people beyond the traditional teacher-student interaction. Technology has afforded students, teachers, and tutors an opportunity to communicate and interact asynchronously and synchronously. Synchronous can be done through Video conferencing tools such as Zoom, Teams, Big Blue Button and Google Meet. Asynchronous can be done through online discussions and forums. Online discussions provide a space for learners to respond to a question shared by the teacher and keep the discussions moving deeper.

Break-out-rooms are used as pedagogical methods to encourage collaborations. Google Docs affords learners many opportunities to collaborate, through a share button that allows learners to share their files with each other in real time, enabling them to collaborate with each other on the document. The announcement tool on learning management system is one of the most powerful tools to communicate with learners.

Navigation

Navigation provides students with support and resources that are essential for finding their way around the course. There must be clear instructions on how to navigate the course from the home page. Students must be explained on how to engage with the course, what proportions of the course is face-to-face and online. There must be sufficient indication of where material is to be used online and in face-to-face settings.

Content/Course information

Course information is simply a brief overview of the course that (a) explains the expectations, purpose, and structure of the course; (b) describes institutional support services critical for learner success; (c) offers other critical information that assists learners in being successful in the course; and (d) provides instructions regarding how to get started and how to navigate the online course (Lewis, 2021, p. 62). Course information is a clear description of the blended learning course. The learning outcomes and objectives are clearly defined for the learners. A list of requirements and policies, assignments, important dates, list of assignments and deadlines. This allows the learners to have a feel of what to expect and what they need to do (Hew, 2016).

Learner/Student Support

This is related to the constant availability of a help system when the students need it. Learner support includes providing students with examples, additional resources, Library information support, writing centre and technical support. Students should have timely and sufficient access to support in face-to-face and online modes. There are clear instructions on how and when students should expect feedback. There are student tutors to assist students with concepts.

Technology and Multimedia Design

Blended learning arrived at a time of unprecedented development of technology-based tools and many other ways of interacting with the internet. “The use of technology in the classroom is changing; it is no longer the medium through which learning is delivered to students that they learn from, but, rather, a tool that students learn with that supports the construction of knowledge” (Calvert, 2001, p. 48).

Mayer (2007) developed a set of principles for designing multimedia instructional materials (Mayer, 2007). These principles are a presentation composed of words and pictures to foster meaningful learning for learners. The multimedia principles simply state that learners learn better from words and graphics rather than words alone and helping them connect and make sense of verbal and visual mental presentation.

Principle	Description
Coherence	Learners learn better when extraneous elements are excluded
Signalling	Learners learn better when important information is highlighted
Spatial Contiguity	Learners learn better when corresponding workday and graphics are located near each other
Temporal Contiguity	Learners learn better when corresponding narration and graphics are presented simultaneously
Redundancy	Learners learn better from a combination of graphics and narration rather than from a combination of graphics, narration and on-screen text
Modality	Learners learn better from graphics with narration than with on-screen text
Multimedia	Learners learn better from words and graphics than words alone
Personalisation	Learners learn better when the narration is presented in a conventional style

Voice	Learners learn better from a friendly human voice rather than a machine –like voice
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Table 4: Mayer's Multimedia Learning Principles (Mayer, 2007)

By using technology in the constructivist class, tutors will actively engage the students with the lesson. Technology will allow the learners to collaborate and work with each other to construct new knowledge. Technology allows the teacher to engage in activities which will help the learners to understand their own thought process and that of their peers. Interactive technologies that can be utilized are: Instructional videos, Polls, Chats and White board.

3.3.2 Piloting the Rubric (data collection Instrument)

The draft of the rubric was developed and sent to lecturers to review and validate the using their courses. Two lecturers from Wits University and one lecturer from the University of Johannesburg. In total three courses were used to validate the rubric. They pre-tested the rubric using their courses. The results of the pre-test resulted in removing two components in the technology and multimedia category. Due to the scope of this study, the component of hardware specifications and software specifications for the learning management system were removed because the category of technology and multimedia for this study is looking at the tools that students learn with that supports the construction of knowledge.

There is a potential to interview tutors and coordinators of the RSP course and observe the face-to-face tutorials, but due to the time limit of the study and constraints of a thesis, I recommend observation and interviews for future research. To further improve the reliability of the rubric, there is potential to validate it using Cronbach's alpha reliability in the future. Cronbach's Alpha provides a measure of the internal consistency of a test or scale; it is expressed as a number between 0 and 1 (Tavakol & Dennick, 2011).

3.4 Data analysis approach

The Road to Success Programme course on Ulwazi the learning management system at Wits University was evaluated using the categories of the rubric. I had access to the course syllabus. All the activities occur on the learning management system Ulwazi: The course information, study materials, asynchronous, synchronous, assessments, communication and feedback.

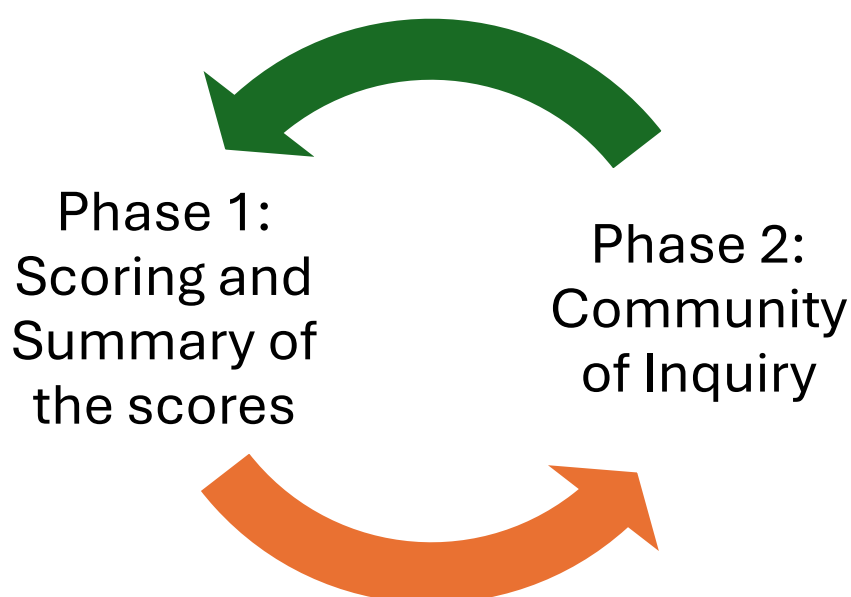


Figure 8: Phases in data collection

Phase one: Scoring and Summary of the scores.

Scores were measured and analysed using simple descriptive statistics. Descriptive statistical analysis and the graphical presentations of the data were developed using Microsoft Excel. The scores were used to calculate the totals and aggregates per category and a summative score (the overall average of all the categories for the course). The statistical data were analysed to identify different instances and provide qualitative descriptive evaluations drawn from the review process to make summative

conclusions and assist in providing recommendation on the actual design of the RSP course.

The analysis from the rubric was calculated using the Likert scale. Likert scale is a tool used to measure something. The rubric contains a five-point Likert scale and along each category of a dimension, there is a description of what constitutes the selection of a score – criteria per score and per category. The Likert scale allows a researcher to measure the degree of each category and to avoid the bias or developing courses that do not meet the individual learner needs, meet standards or properly infuse technology to increase the sense of community for the learners.

Thereafter, the categories were divided into two: Pedagogy and Technology categories. The summary of the course assisted in providing summative conclusions on which category scored the highest and the lowest between the pedagogy and technology categories. The summary phase was important as it indicated which categories needed to be redesigned on the RSP course.

Phase two: Community of Inquiry

In Phase two, I used the Community of Inquiry as analytic framework. The Framework offers pedagogical guidance for designers, instructors and students interested in collaborative, constructivist learning environments to foster deep learning. The framework helped in assessing the teaching, social and cognitive presence. The “teaching presence area explores the design, facilitation and guidance of student learning to achieve specific outcomes”, the “cognitive presence area explores how students construct and confirm meaning through activities” and the “social presence area explores how students identify with the community, how they communicate and build relationships” (Krull, 2020, P. 1).

The framework assisted in reviewing whether the three components teaching presence, social presence and cognitive presence were present in the learning activities of the RSP course. Community of Inquiry considers how these three components interact with each other and how such interactions result in (pedagogically sound) learning and student engagement both online and face-to-face

happened. I used the framework to develop the categories used in the rubric and mapping them into the three components.

The teaching presence component reviewed the course structure, instructional design, course/content information and navigation categories. The social presence reviewed the interaction, collaboration and communication and technology/multimedia categories. The cognitive presence reviewed the assessment and feedback category. I did this to make sure that all these Community of Inquiry components were present in the RSP course.

To conclude this section, I highlight two emerging themes, namely, course design/review is much deeper than balancing online/offline and synchronous/asynchronous learning opportunities and secondly, a blended course design and review framework needs to consider the intersection of the social presence, cognitive presence and teaching presence. These themes are discussed in the next chapter.

3.5 Validity and Reliability

According to Creswell (2023), qualitative validity “means that the researcher checks the accuracy of the findings by employing certain procedures and qualitative reliability indicates that the researcher's approach is consistent across different researchers and among different projects” (Creswell & Creswell, 2023, p. 233)

Validity and reliability were determined by checking the appropriateness of the instrument (rubric) for this study (to review the standard and quality of the Road to Success Programme course). In this study, the rubric was based on empirical research on blended learning rubrics such as the quality matters higher education rubrics and the Commonwealth Learning quality rubrics. I have further tested and refined the rubric (refer to page 85-108).

3.6 Trustworthiness

Ensuring trustworthiness of the data is crucial for maintaining the credibility and rigour for this study. Data triangulation was used by combining the qualitative data from the literature and the small component of quantitative data from the rubric.

Clark (2021, p. 1189) defines triangulation “as the use of more than one method or source of data to study social phenomena”. This approach is recommended by Creswell (2020) as it strengthens the trustworthiness of findings by providing multiple perspectives and sources of evidence.

3.7 Limitations of the study

Firstly, due to the limitations in nature and scope, this thesis only evaluated the RSP course on the learning management system and due to time constraints did not observe the face-to-face sessions in the traditional classroom and could not interview the tutors and coordinators. The study could have benefited from a complementary quantitative component. Incorporating quantitative data, such as surveys or statistical analysis, which could have provided additional insights and a more balanced perspective on the course evaluation.

Secondly there is potential challenges in implementing the recommendations. Future research should look at implementing the recommendations by redesigning the RSP course and then evaluating it after redesign.

Thirdly the rubric has not been validated statistically. And lastly, there is little research available on blended learning rubrics and their quality to evaluate blended learning courses.

Chapter 4: Analysis and Research Findings

In this chapter, I present the findings that emerged from the analysis of the RSP course. The research questions of this study guided the analysis and findings:

How can an existing Road to Success Programme course be reviewed and redesigned as a tutorial for blended mode?

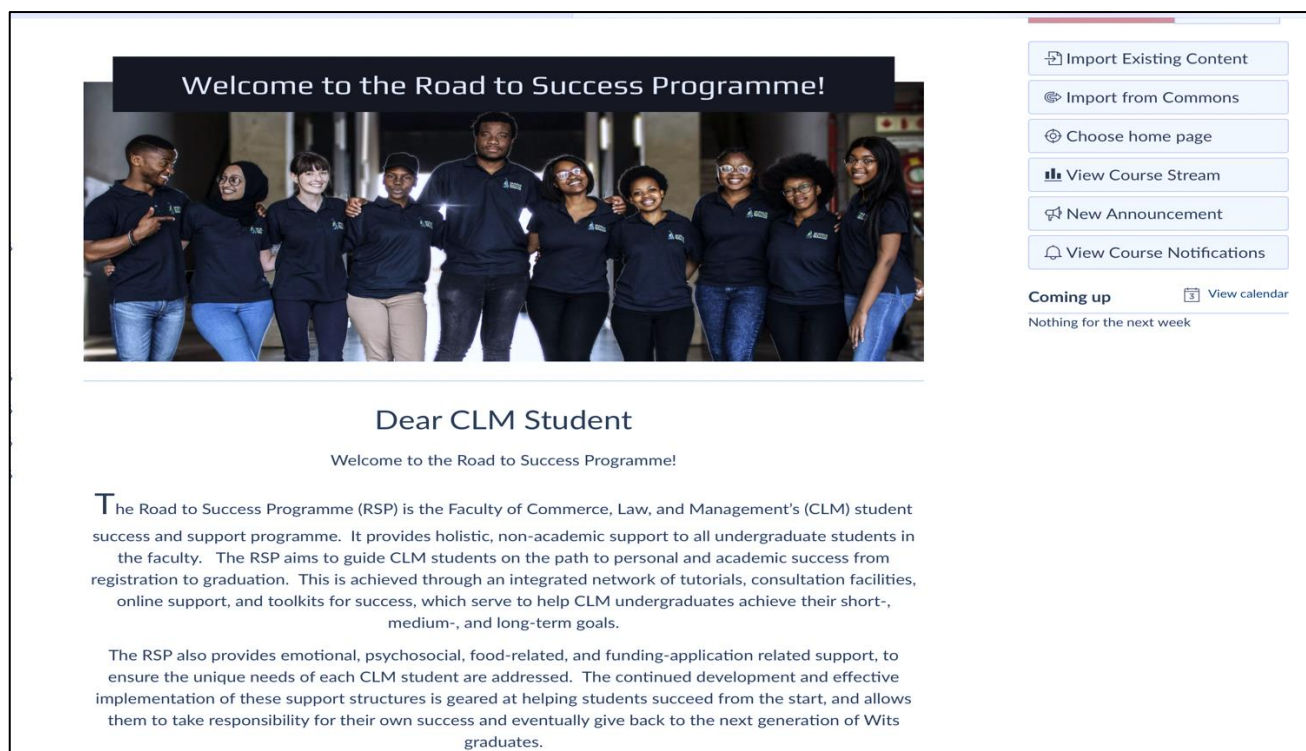
The sub-questions were:

- 1.1 Which learning theory and blended models underpins a blended learning course?
- 1.2 Which instructional and design principles can be applied to redesign a blended learning tutorial for RSP?
- 1.3 How can Data collected from the blended learning Rubric provide recommendations for redesigning a RSP blended course?

A rubric was used to collect the data, which was analysed using the simple descriptive statistics. Loeb et al., (2017, p. 5) define descriptive analysis as “identifying patterns in the data to answer questions about who, where, what, when and to what extent?” Descriptive statistical analysis and the graphical presentations of the data were developed using Microsoft Excel.

4.1 Overview of the evaluated course (RSP Course)

The course evaluated in this research is the RSP Course.



Welcome to the Road to Success Programme!

Dear CLM Student

Welcome to the Road to Success Programme!

The Road to Success Programme (RSP) is the Faculty of Commerce, Law, and Management's (CLM) student success and support programme. It provides holistic, non-academic support to all undergraduate students in the faculty. The RSP aims to guide CLM students on the path to personal and academic success from registration to graduation. This is achieved through an integrated network of tutorials, consultation facilities, online support, and toolkits for success, which serve to help CLM undergraduates achieve their short-, medium-, and long-term goals.

The RSP also provides emotional, psychosocial, food-related, and funding-application related support, to ensure the unique needs of each CLM student are addressed. The continued development and effective implementation of these support structures is geared at helping students succeed from the start, and allows them to take responsibility for their own success and eventually give back to the next generation of Wits graduates.

[Import Existing Content](#)
[Import from Commons](#)
[Choose home page](#)
[View Course Stream](#)
[New Announcement](#)
[View Course Notifications](#)

Coming up [View calendar](#)
Nothing for the next week

Figure 9: Welcome page of the RSP course

The Road to Success Programme (RSP) aims to supplement and complement the existing academic programme. It provides holistic non-academic support to all undergraduate students in the faculty of Commerce, Law and Management. The programme aims to guide the Commerce, Law and Management (CLM) Faculty students on the path to personal and academic success from registration to graduation. This is achieved through an integrated network of tutorials, one-on-one sessions, online support, and toolkits for success. Students are grouped into focus groups (maximum of 10 students per group) that meet once a week, capitalising on the diversity of students (they were from different degree programmes and years of study) and using reflective practice to scaffold students through semester two. Quarter four is characterised by sessions on study planning, examination preparation, and peer support as a means of making sure students are on track for the end-of-year examinations.

At the beginning of the year, first year students learn generic skills such as study skills and taking notes. The tutors also assist through a series of tutorials for students who are academically weak or “at risk” (showing poor academic performance) (De Klerk et al., 2017). The anticipated outcome of “RSP interventions is to improve students’ preparedness for formative and summative assessments, which would ideally result in improved student performance and throughput” (De Klerk et al., 2017, p. 6)

4.2 Summary of the categories

	Score Total	Score %
Pedagogy		
Course Structure	5	100%
Instructional Design	4	80%
Assessment and Feedback	3	60%
Interaction, collaboration, and Communication	4	80%
Average Score	4	80%
Technology		
Navigation of the course	3	60%
Content/ Course Information	4	80%
Learner/Student Support	4	80%
Technology/Multimedia Design	1	20%
Average Score	3	60%

Table 5: Summary of scores per categories of the RSP Course

The RSP course in total scored an average score of 61%. The course structure scored the highest. The technology and Multimedia Design scored the lowest, followed by the Assessment and Feedback and Navigation that scored the same score. These scores are an indication that the multimedia and technology design, the assessment and feedback and Navigation of the course need to be developed further.

Navigation

There must be clear instructions on how to navigate through the course both online and face-to-face. There is a breadcrumb trail at the top of a given page for easy navigation through the course site.

	Score total	Score Percentage
Navigation through the course	0	0%
Content Map	3	60%
Instructions on how learners should engage with a blended learning course and what proportions of the course are online and face-to- face.	3	60%
Sufficient indication of where materials are to be used online and in face-to-face settings.	0	0%

Table 6: Navigation scores

Content/Course information

One of the national standards for blended learning course development is to ensure that there is a course information/overview and a syllabus (Lewis, 2021). These are

able to strengthen the quality of the blended learning course. Course information comprise clear descriptions and overview of the course and include clear course objectives, important dates, deadlines and a list of assignments. The course information scored the highest.

	Score Total	Score Percentage
Course objectives	2	40%
Course materials	5	100%
Course administration	5	100%
Calendar	4	80%
Instructor information and Contact methods	5	100%
Netiquette	2	40%
Requirements for successful completion	3	60%

Table 7: Content/Course information scores

Course Structure

Course structure refers to the design of the course resources.

	Score Total	Score Percentage
Chunking	5	100%
Sequencing- The presentation is logical (e.g., sequential, well-paced)	5	100%
Unit Overviews	5	100%

Table 8: Course Structure scores

Instructional Design

One of the key qualities of a blended course is that the content must be pedagogically sound. Students must be exposed to real life and varying activities.

	Score Total	Score Percentage
Learning activities / instructional materials are linked to learning outcomes.	3	60%
The LMS is learner friendly (e.g., minimal clicks, minimal external links or documents to access, as is feasible)	5	100%
Learning activities provide opportunities for interaction (student– student, student–instructor, and with materials / technology) that support active learning.	2	40%

Table 9: Instructional Design Scores

Learner/Student support

Students must have timely access to support in face-to-face and online course. Students should have timely and sufficient access to support in face-to-face and online modes.

	Total Score	Score Percentage
Academic support and resources	5	100%
School information	5	100%
There is a help option to support learners with FAQs, etc.	0	0%
Tutors are adequately trained and qualified to facilitate the blended course.	5	100%

Table 10: Learner/Student Support Scores

Multimedia & Technology Design

Integrating technology *per se* is not necessarily blended learning. Cleveland-Innes and Wilton (2018, p. 5) stated that “if online learning is only a minor component of a classroom-based course, without offering students interaction opportunities of being online, it may not really be blended learning but simply a case of technology integration”. Appropriate face-to-face and online activities must be designed with

pedagogic principles of both and integrating technology that supports meaningful learning in mind.

	Total Score	Score Percentage
Graphics	0	0
Video Aids	3	60%
Audio Aids	0	0%
Coherence Principle-Extraneous Materials	4	80%
Signalling Principle-Complexity	5	100%
Contiguity Principle-Graphics and Text	5	100%
Contiguity Principle-Feedback display	0	0%
Contiguity Principle-Instruction display	0	0%
Contiguity Principle-Timing	0	0%
Modality Principle-Audio Narration	0	0%
Web tools	5	100%

Table 11: Multimedia & Technology Design Scores

Assessment and Feedback

The assessment of learning must always be aligned with the course learning objectives. Firstly, when designing a blended learning course, one must include both formative and summative assessments. Cleveland-Innes & Wilton (2018, p. 34) described formative assessment as learning that is “reviewed and supported, but work is shaped, and learner continues to produce products that demonstrate knowledge and skill, this allows the diagnosis of any misunderstanding and provides immediate feedback and guidance for continued progress”. Summative assessment is where learning is graded.

Assessment can be challenging in relation to where and when assessment should occur, but preference is for assessment to be conducted online and face-to-face classes to be used to assess presentations and discussions, and for exams.

	Total Score	Score Percentage
Formative Assessment types	5	100%
Formative Assessment Frequency	3	60%
Summative Assessment types	0	0%
Student feedback Quality	0	0%
Student Feedback Frequency	0	0%

Faculty and course Feedback	5	100%
Alignment of Learning Objectives and Assessment	3	60%
Assessment Instruction- Learners are provided with information on how they will be assessed in the course.	0	0%
Assessment Design	4	80%
Rubric	0	0%
Learner Progress	3	60%

Table 12: Assessment and Feedback Scores

Interaction, collaboration, and Communication

Due to the additional support received by students through student-student interaction, student-teacher and student-content, blended learning has provided better learner environments. The associated interaction opportunities support learner empowerment and knowledge construction.

	Total Score	Score Percentage
Synchronous Interaction	0	0%
Asynchronous Interaction	3	60%
Student to Student Interaction	4	80%
Instructor to Student communication	5	100%
Instructor to Student participation	5	100%
Collaboration Tools	0	0%
Active learning and Participation	4	80%

Table 13: Interaction, collaboration, and Communication Scores

4.3 Summaries and Justifications of the Research Scores

In this section, I discuss the findings by providing descriptions, screenshots, and the justifications for the scoring provided. The Road to Success Programme runs both online (Ulwazi) and Face-to-face classroom (tutorials). It is an online course on the Wits learning management system (Ulwazi) and face-to-face where students are

grouped into focus groups (maximum of 10 students per group), who meet once a week.

Navigation

Navigation through the course

It is important that before students get started that they familiarise themselves with the course online. This may help students find their way around the online course. Some of the requirements of navigation is the provision of navigation arrows, navigation indicators, a breadcrumb link for each screen location. However, there is no navigation screen on the RSP course.

Content map

A content map allows students to quickly access a topic. It is a visual representation of the modules and topics of the course. Within the RSP course. A clear content map exist that contain content of the modules. It can be improved by describing the topics better. For example,

Instructions on how learners should engage with a blended learning course and what proportions of the course are online and face-to- face.

Within the RSP course, there are clear instructions for when the students meet the advisors face-to-face. There are also the time slots for each advisor available on the calendar and on the course syllabus. Each group meets once a week for the duration of the semester (approximately six to eight meeting in total). Attendance is compulsory for readmitted students (as per the conditions of the readmission they are to sign), but signup and attendance remain voluntary for the other two groups. In addition to the peer learning communities, RSP Peer Advisors are available for one-to-one consultation with any CLM undergraduate student who wish to consult during scheduled times throughout the academic year.

However, there are no clear instructions on what proportions of the course are to be done online. There is no indication whether the course is self-paced or not. There are no instructions on which topic are supposed to be covered by students in a particular week or when the students are expected to complete the course.

Course syllabus

Jump to today

Edit

Course summary:

Date	Details	Due
Mon, 7 Mar 2022	 FY Support Tutorial with Entle	12:30 to 13:30
Tue, 8 Mar 2022	 FY Support Tutorial with Ntando	13:15 to 14:00
	 FY Support Tutorial with Mbuso	14:15 to 15:00
Wed, 9 Mar 2022	 FY Support Tutorial with Ntando	11:15 to 12:00
	 FY Support Tutorial with Panashe	13:15 to 14:00
Thu, 10 Mar 2022	 FY Support Tutorial with Boitumelo	12:30 to 13:15
	 FY Support Tutorial with Entle	13:15 to 14:00
Fri, 11 Mar 2022	 FY Support Tutorial with Ayanda	14:15 to 15:00
	 FY Support Tutorial with Banhle	13:15 to 14:00
	 FY Support Tutorial with Ayanda	14:15 to 15:00
 Roll Call Attendance		

Figure 10: Course syllabus Page

Sufficient indication of where materials are to be used online and in face-to-face settings.

Within the RSP course, there are no instructions on whether, or not, and what materials are supposed to be used online or face-to-face.

Course content/Information

Having clear course objectives and instructions is one of the most important factors in driving students to success.

Course objectives

There is no page or PDF document that states the course objectives. Hew (2016) argues that the course objectives allow students to have a feel of what to expect and

when they need to do (Hew, 2016). Course objectives are important in a "blended learning course, because it can inform content delivery mechanism both online and face-to-face, the pedagogy (bridging between the classroom and online activities) and requisite amount and locations for class meetings and interactions (McGee & Reis, 2012, p. 11)

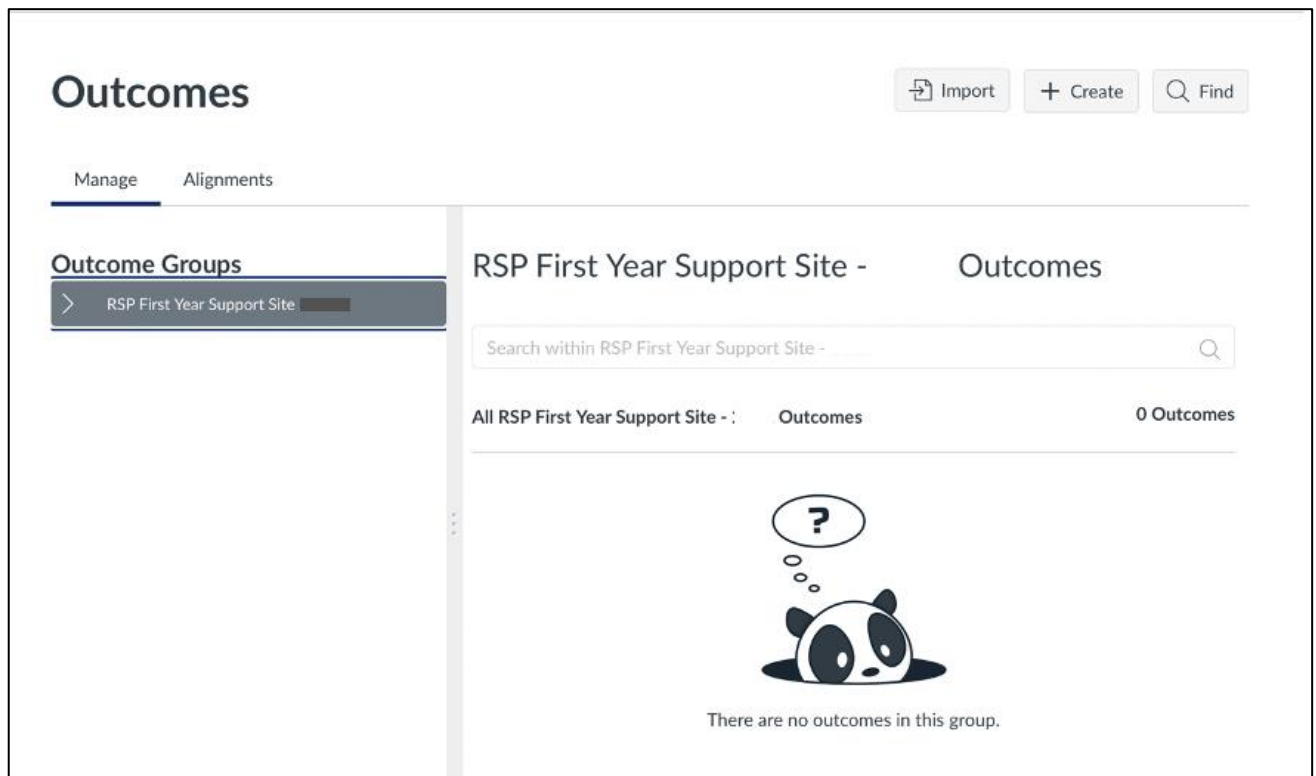


Figure 11: Course objectives page

Providing students with course objectives, aims and expectations, affords them an opportunity to understand what is expected of them and allows to take more control of their learning.

On the Welcome/Home page of the online course, there is information of what the programme is about and the aim of the Road to Success and Programme.

Dear CLM Student

Welcome to the Road to Success Programme!

The Road to Success Programme (RSP) is the Faculty of Commerce, Law, and Management's (CLM) student success and support programme. It provides holistic, non-academic support to all undergraduate students in the faculty. The RSP aims to guide CLM students on the path to personal and academic success from registration to graduation. This is achieved through an integrated network of tutorials, consultation facilities, online support, and toolkits for success, which serve to help CLM undergraduates achieve their short-, medium-, and long-term goals.

The RSP also provides emotional, psychosocial, food-related, and funding-application related support, to ensure the unique needs of each CLM student are addressed. The continued development and effective implementation of these support structures is geared at helping students succeed from the start, and allows them to take responsibility for their own success and eventually give back to the next generation of Wits graduates.

- 
- Tutorials
 - Consultation facilities
 - Online support
 - Toolkits for success

Figure 12: Aims of the RSP course.

Course Materials

Course Materials are provided online and in the tutorials. Students are also provided with the opportunity to explore additional materials and resources for further reading and to deepen their understanding of concepts. Some of the content is appropriate to the topics. The modules and topics are detailed, yet simple to promote learning and avoid confusion and boredom.



Figure 13: Course Materials Page

Course Administration

Course administration should include the syllabus, the preferred mode of communication and the types of assessment to be completed. In the RSP course, there is an orientation video explaining the support students can receive.



Figure 14: RSP Orientation Video

The course syllabus is available whereby students can see the time slots allocated for tutorials. This is particularly important to make the students aware that they are responsible for participating in learning activities both in class and online. Mc Gee & Reis (2012, p.12) state that “developing the syllabus is the recommended next step in a course, as it is aligned with writing objectives”. Hence, the syllabus provides a map for the semester.

Course syllabus

Jump to today

Edit

Course summary:

Date	Details	Due
Mon, 7 Mar 2022	 FY Support Tutorial with Entle	12:30 to 13:30
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Fri, 11 Mar 2022	 FY Support Tutorial with Banhle	13:15 to 14:00
	 FY Support Tutorial with Ayanda	14:15 to 15:00
 Roll Call Attendance		

Figure 15: RSP Tutors Booking Slots

Calendar/events

A course calendar is one the most important components of such courses. Event on the calendar include the tutorial dates with the tutors. Each group meets once a week for the duration of the semester (approximately six to eight meeting in total). Attendance is compulsory for readmitted students (as per the conditions of the readmission they are to sign), but signup and attendance remain voluntary for the other two groups. In addition to the peer learning communities, RSP Peer Advisors are available for one-to-one consultation with any CLM undergraduate student who wishes to consult during scheduled times throughout the academic year.

There is also Library information literacy booking dates. The calendar schedule allows students to select their time accordingly and attend the tutorials and the information literacy trainings in their free period time.

Instructor information and Contact methods

Providing students with information on their tutors/advisor's experience, skills and background allows the students to know their advisors/tutors better and build confidence towards them. Within the Road to Success Programme course the tutors (15 tutors) and advisors (3 advisors) have an introductory video explaining the aim of the RSP and introduce themselves and the subjects in which they assist students with.

Additionally, the advisor's information can be accessed on the CLM website page.

Meet the team



RSP Advisors

RSP advisors are available for consultation and can answer questions and queries linked to the above, or make referrals where necessary. However, before contacting an advisor, please review the announcement section of this Orientation site, as well as the chat and forum sections. RSP advisors can be reached via email:

Figure 16: Instructor Information

Student-to-instructor communication is important in blended learning. Within the RSP course, students who wish to contact the advisor can access their email address and contact them on their phones.

Contact with RSP Advisors

RSP advisors are available for consultation and can answer questions and queries linked to the above, or make referrals where necessary. However, before contacting an advisor, please review the announcement section of this Orientation site, as well as the chat and forum sections. RSP advisors can be reached via email:

Tshepiso Maleswena Email: tshepi Programme: Bachelor of Accounting Science (BAccSci)
Aneshree Nayager Email: anesht Programmes: Bachelor of Economic Science (BEconSci) and BCom Accounting
Mbongeni Shungube Email: mbon Programmes: Bachelor of Laws (LLB) and BCom Law

Figure 17: RSP Contact Information

Netiquette

Netiquette guidelines should include rules on good conduct for emails, conduct during discussions, conduct for face-to-face tutorials, respect, and considerations for other students. Sharing outside the online course.

Within the RSP course, each tutor has communicated the rules in the tutorial class. However, there is no PDF document on the Ulwazi regarding the rules of conduct.

Requirements for successful completion

Within the RSP course, there is no information provided regarding the completion of the course.

Course Structure

Unit Overviews

The course overviews assist students with putting together the expectations, skills and competencies to create a holistic picture of what is expected. Within the RSP course, there is clear unit overviews that describe all relevant information. There are clear expectations relating to the completion of the topic, the key questions students should answer and a self-assessment at the end of each topic for students to complete.

Reflection: My Study Habits

This exercise aims to help you to think about your current study habits. Try to answer as honestly as possible.

Figure 18: Unit Overviews

Chunking

Chunking improves the students' understanding and retention rate, allows students to explore and learn more content and comprehend the course material better. Within each module, there are topics. Each module divides the content into manageable segments within the topics. The topics contain relevant content for RSP course. More additional topics on frequently covered concepts could be added on.

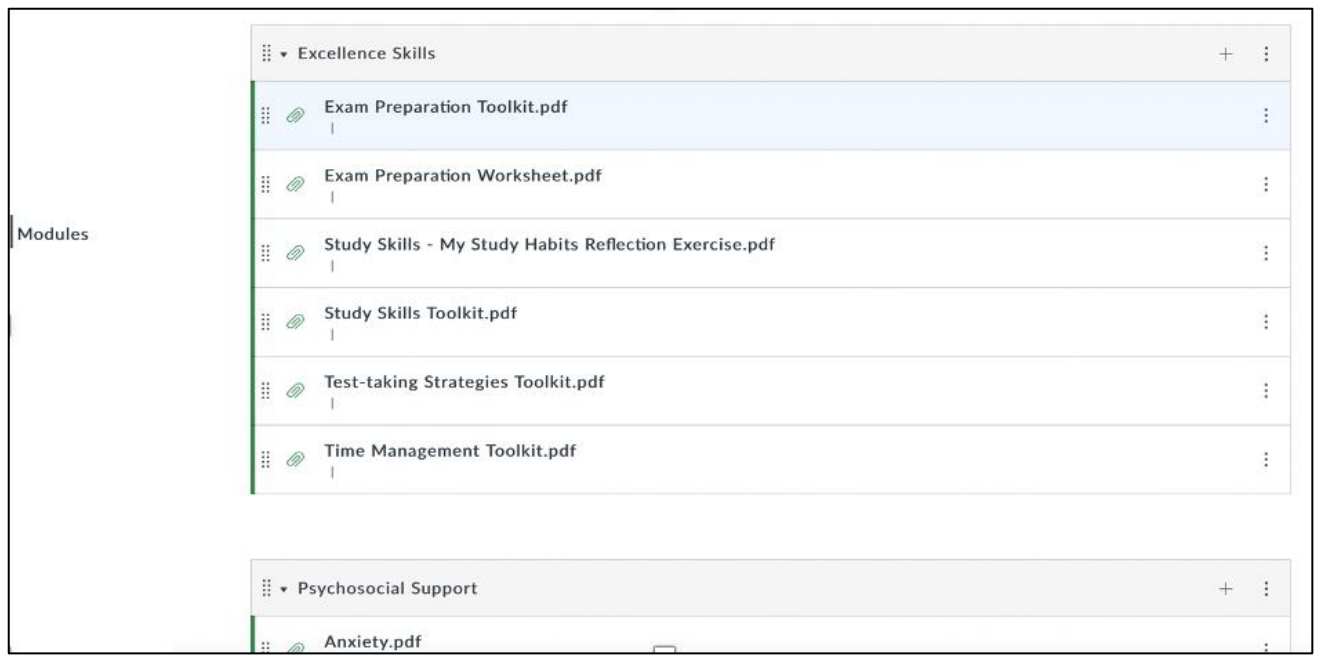


Figure 19: Chunking of Topics

Sequencing

The RSP course is indeed characterised by a logical sequencing of the content, which promotes the best learning pathways. The content is also well sequenced with a flow of topics appropriately preceding each other. The content is structured in a foundational building block that allows students to see the various connections existing between various concepts and topics.

Instructional Design

Learning activities/instructional material are linked to learning outcomes.

Aligning the course materials and activities is regarded as the key milestone for blended learning. The objectives should be aligned with the assessment to help students clarify the course expectations. Within the RSP course, there is no clear indication of what the learning outcomes are and there are no assessments on the online course. Tutors provide learners with activities and homework, but which are not clearly indicated in the course outline.

The LMS (Learning Management System) is learner friendly.

The learning management system (Ulwazi) is simple and easy to use for students. The design of the RSP course is user-friendly for students. Moreover, students can easily find the resources and tools they need. The LMS itself has interactive tools that the RSP course needs to integrate into their course. More support is needed to maximise the affordances of the LMS.

Learning activities provide opportunities for interaction.

Holme and Prieto- Rodriquee (2015) emphasise that high level student satisfaction occurs when any of the following types of interaction are high: student-to student, student -teacher and student to content. Any encounter between students and their tutors represents an opportunity for a deeper engagement with their homework.

Learner/Student Support

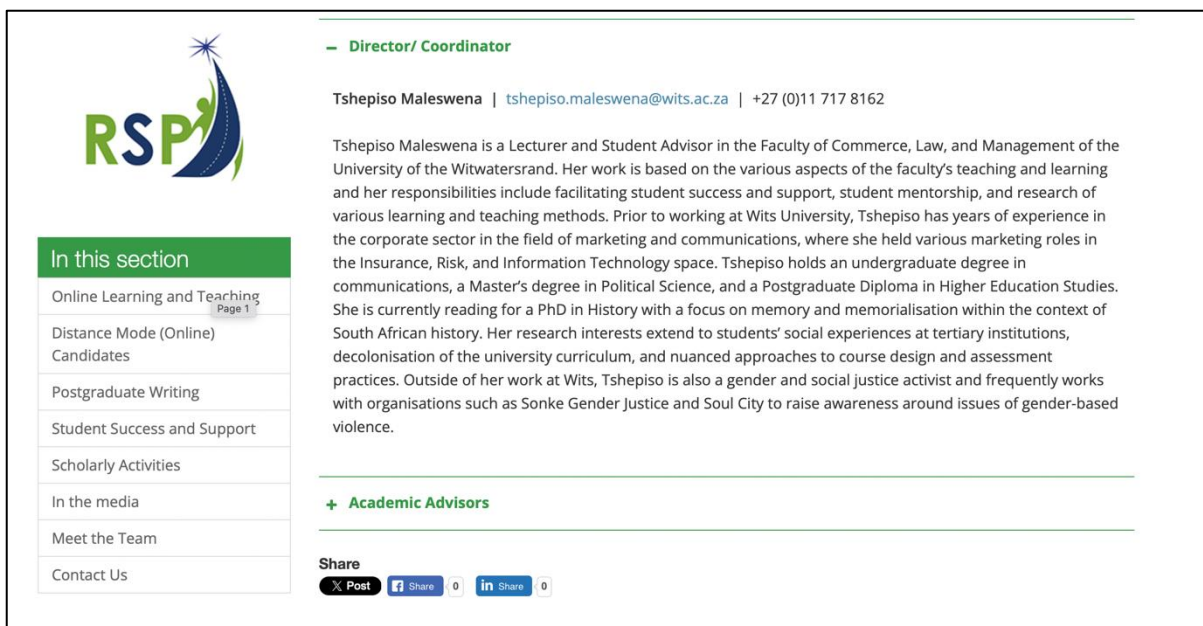
Academic support and resources

Quality Matters rubric strongly emphasise the importance of learner support. Support elements enhance the learner's satisfaction with the course, and it plays a crucial role in the learners' retention. The RSP consists of three academics/advisors and 15 tutors who offer academic guidance to students. Students tend to gravitate to tutors based on the latter's insight into and understanding of what it means to be in the student shoes and are approachable.

Within the RSP course, there are several course materials on how to deal with exam stress, how to prepare for exams, time management, and most importantly information on helping students in need of food aid. Hence, the RSP has an initiative to support students and address student success needs by providing them with food.

School information

One of the key principles of blended learning is faculty-to-learner interaction. Within the RSP course, there is a video explaining to students the support they can receive from the different faculties. It contains the departmental emails and contact details. Additionally, there is also an RSP website where students can access the faculty's information.



RSP

In this section

- Online Learning and Teaching Page 1
- Distance Mode (Online) Candidates
- Postgraduate Writing
- Student Success and Support
- Scholarly Activities
- In the media
- Meet the Team
- Contact Us

– Director/ Coordinator

Tshepiso Maleswena | tshepiso.maleswena@wits.ac.za | +27 (0)11 717 8162

Tshepiso Maleswena is a Lecturer and Student Advisor in the Faculty of Commerce, Law, and Management of the University of the Witwatersrand. Her work is based on the various aspects of the faculty's teaching and learning and her responsibilities include facilitating student success and support, student mentorship, and research of various learning and teaching methods. Prior to working at Wits University, Tshepiso has years of experience in the corporate sector in the field of marketing and communications, where she held various marketing roles in the Insurance, Risk, and Information Technology space. Tshepiso holds an undergraduate degree in communications, a Master's degree in Political Science, and a Postgraduate Diploma in Higher Education Studies. She is currently reading for a PhD in History with a focus on memory and memorialisation within the context of South African history. Her research interests extend to students' social experiences at tertiary institutions, decolonisation of the university curriculum, and nuanced approaches to course design and assessment practices. Outside of her work at Wits, Tshepiso is also a gender and social justice activist and frequently works with organisations such as Sonke Gender Justice and Soul City to raise awareness around issues of gender-based violence.

+ Academic Advisors

Share

Post Share 0 in Share 0

Figure 20: School Information

Tutors/advisors are adequately trained and qualified to facilitate the blended course.

The RSP is run by lecturers and 4th year students within the Faculty of Commerce, Law and Management. The tutors are taken through an initial and a continuous training programme throughout the year. The tutor training is subdivided into two parts: (1) Part 1 is conducted by the advisors/academics and the Online Learning and Teaching unit which provides support for using Ulwazi for teaching and learning, including the Commerce, Law and Management online learning and teaching toolkit. The tutors are trained on their responsibilities, how to conduct peer learning, one-to-one student engagement, how to elicit responses in group settings, rules within the school and when to refer matters to advisors. (2) Part 2, CCDU (Counselling Careers and Development Unit) Psychologists provide the tutors with training on matters such as crisis management and the provision of personal and emotional support to students.

There is a help option to support learners with FAQs, etc.

Within the RSP course, there is no training on how to provide learners with support.

Multimedia and Technology Design

According to Cleveland-Innes and Wilton (2018, p. 21) “technology that supports blended learning will support (1) flexibility and personalisation for students, allowing them to learn on their own and at their own pace, (2) activity monitoring by the teacher through online assignment”. For a successful blended learning course, what students do in the face-to-face classroom must be aligned with what they do in the online environment and vice-versa.

Graphics

One of the ways of assisting students in acquiring knowledge is using visual graphics. The RSP course does not utilise Clark and Mayer’s (2016) six types of graphics: representational graphics, organisational graphics, decorative graphic, relational graphics, transformational graphics, and Interpretive graphics. There is an urgent need to create and integrate graphics within the RSP course as it corresponds to storytelling and helps students who prefer visual representations to text and whose brains process pictures better than words.

Video Aids

There is one introductory video available in the RSP course online. Moreover, the video quality is clear, and the length is adequate. Tutors always send students videos as additional materials. The videos sent to students in the tutorials explain concepts and provide examples. Videos offer students the chance to pause and replay when they require more time to assimilate course content. However, there is need to create more videos for the modules.



Figure 21: Video

Audio Aids

There are no audios available in the RSP Course.

Coherence Principle-Extraneous Materials

The content within the RSP course is well organised. There are no unnecessary images, sound and words.

Signalling Principle-Complexity

Within the RSP Course, there is a comprehensive use of colour or arrows to draw the students' attention to concepts and promote their engagement with the content.

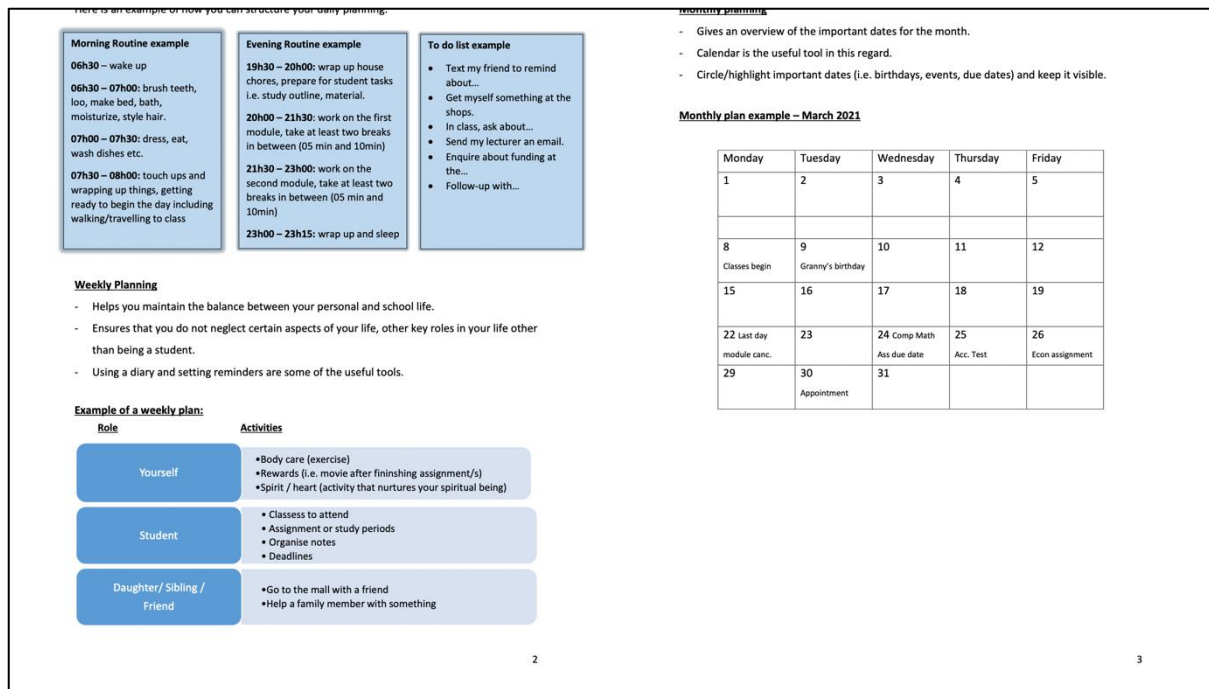


Figure 22: Signalling Principle-Complexity

Contiguity Principle-Graphics and Text

In the RSP course, the texts are juxtaposed together. This can be very helpful for students as they can read the explanation and see the graphic at the same time without scrolling up and down. This helps avoid cognitive overload.

Contiguity Principle-Feedback display

There are formative assessments available in the course, but there is no assessment feedback display.

Contiguity Principle-Instruction and instruction display.

Within the RSP course, there are no instructions to guide learners on how to navigate through the course and for students to understand the course expectations. Basically, there are no text instructions in the course.

Contiguity Principle-Timing

Within the RSP course, there is no indication of the contiguity timing principle. However, there are videos from instructors explaining concepts or topics.

Modality Principle-Audio Narration

In the RSP course, there is no use of narration graphics.

Web tools

There are limited web tools available on the RSP course. Web1.0 tools such as emails are used to communicate with students. Web 2.0 tools such as WhatsApp are used by tutors to communicate with their groups. The RSP has a twitter page that frequently update students on the student support available.

Forums, gamifications and cloud-based applications such as google docs can be introduced to ensure effective learning.

Assessment and Feedback

It must be clearly stated that due to the nature of the RSP course, as a course aiming at guiding the Commerce, Law and Management (CLM) faculty students on the path to personal and academic success from registration to graduation and where attendance is compulsory for readmitted students (as per the conditions of the readmission they are to sign), assessment should adhere to good practice. However, the course has failed to give assessment the attention it deserves. It is used merely for grading purposes and exposes the course to much scrutiny from accredited agencies.

Formative Assessment types

Using assessments appropriately in a blended learning course remains a challenge as they need to be aligned with learning outcomes and content materials. Within the RSP course, there is a limited number of formative assessments used sparsely throughout the course. In the tutorials, students are given homework after learning a concept. The homework at the end of each concept/module is a great platform for formative assessment as it allows students to continuously evaluate themselves. Other formative assessments in the RSP course are carried out through discussions and group activities in the tutorials. There are also self-assessment opportunities

available in the course to allow the students to clarify and verify their own learning and correct and improve themselves.

Formative Assessment Frequency

Each group meets weekly to discuss concepts that students do not understand. These tutorials are predominantly facilitated through discussions.

There is a need to improve the formative assessment in the RSP Course. Having an assessment at the end of each module will allow student to test their understanding of a topic and concept and allow the tutor to determine which topics and concepts need to be revised and revisited.

Summative Assessment types

There is no summative assessment within the RSP course.

Student feedback Quality

One of the most important components of blended learning is immediate feedback. Feedback must be timeous, accurate and clear. However, there is no feedback provided to students in the RSP course.

On the RSP course, there is pressing need to make feedback available to students, i.e. by creating an online quiz and provide immediate feedback on the assessment. When a student answers the question incorrectly the system provides feedback on a wrong answer and confirm a correct answer. Quizzes can also allow students to have multiple attempts.

Student Feedback Frequency

Within the RSP course, there is no indication of student feedback frequency. An example is that there are no quizzes available which provide immediate feedback. There are formative assessments available after each module, but no instructions on when they are due.

Faculty and course Feedback

The RSP course is compulsory to underperforming students. The advisors provide feedback on the students' attendance. Within the RSP, students can provide tutors and advisors with feedback via their emails.

Alignment of Learning Objectives and Assessment

Most of the formative questions are aligned with the learning objectives and course materials. They make it possible for students to be assessed on the concepts described in the topics.

Assessment Instruction- Learners are provided with information on how they will be assessed in the course.

There is no information available on how students will be assessed in the course.

Assessment Design

It is important for assessment to have both lower order and higher order questions. Higher order thinking questions enable students to develop their knowledge and problem-solving skills. The assessments within the RSP course contain a variety of both lower and higher order thinking questions.

Rubric

There are no rubrics available on the RSP course.

Learner Progress

The RSP course is compulsory to underperforming students. The advisors provide feedback on the students' progress.

There is a pressing need to improve the course by developing online assessment and generate learner progress reports regularly. A gradebook can be integrated into the course as a repository of all grades obtained for assessments.

Interaction, collaboration, and Communication

Synchronous Interaction

Educational technologies have afforded students the opportunity to engage with the course content outside the classroom and expand the time and quality of discussions into face-to-face sessions. There are no synchronised activities within the RSP course. Some of the synchronised activities that can be integrated into the course are chats and video conferencing.

Asynchronous Interaction

There are some asynchronous activities within the RSP course. Some of the asynchronous tools are discussion boards. Such activities may also be facilitated via emails.

Student to Student Interaction

There must be opportunities for students to collaborate and engage with each other both online and face-to-face. Collaboration is important as it fosters learning. Within the RSP course, students interact with each other in the group sessions but not online. Further improvement is needed to use other methods for students to interact. There are chat and forum functions available on Ulwazi that can assist.

Instructor to Student communication

The tutors communicate with their groups via emails and group WhatsApp, reminding them about activities and course events.

Instructor to Student participation

In the weekly group sessions, tutors interact with students by facilitating and asking questions in which students must respond; all the students and tutors can therefore have a discussion in the tutorial. The tutors' interaction with students allows the tutors to reach out to struggling students and provide simultaneous feedback.

Collaboration Tools

There are no collaboration tools available in the course. More improvement is required to use collaboration tools such as google Docs in the RSP course.

Active learning and Participation

Active participation is not promoted within the course online but there is some participation in the group sessions. In the group sessions, students discuss concepts and modules with each other. Moreover, there are brainstorming activities in the group sessions.

4.4 Concluding remark of research findings

The results from the data collection identified useful instructional and design principles to take into consideration when implementing and designing a blended learning course. The results from the data collection reveal the perceptions that courses get the “blended label merely because of a segment of already existing classroom learning replaced with some online learning” (Bliuc et al., 2007, p. 234). Much improvement is needed in the RSP course online. Based on these findings, I can conclude that there is no balance between the face-to-face classroom activities and online activities. Beyond balance, issues or cognitive load (assessments), deep engagement and social presence needs serious attention.

Chapter 5: Recommendations and conclusion

In this Chapter I discuss the findings of the study, address the research questions, make recommendations, and finally conclude the study.

The following questions guided this study:

1. What constitutes a quality blended learning course?
2. Which learning theory and blended models underpins a blended learning course?
3. Which instructional and design principles can be applied to redesign a blended learning tutorial for RSP?
4. How can Data collected from the blended learning Rubric provide recommendations for redesigning a RSP blended course?

This study seeks to contribute to existing body of knowledge on and to efforts aimed at designing a blended learning course while combining conventional and innovative technologies and finding suitable and effective ways of assisting practitioners in the field to redesign their traditional courses by making them more engaging and interactive for students.

When designing blended learning, it is adequate to start with systemic approaches, which combine several design models and theoretical approaches for the student activity that can achieve the learning objectives.

5.1 Discussion of the findings

To address the research question, it is necessary to foreground principles based on educational theories to enhance the educational grounding of blended learning. A quality blended learning course firstly, must be underpinned by learning theory/theories. Hence, the selection and implementation of any design rests on the designers' understanding of learning theories and frameworks. Theories of education provide insight into key components of blended learning principles. Secondly, a blended learning model must be chosen to implement a blended learning course.

Thirdly, an instructional design model is critical as they help designers create online learning focused on the context of which it is intended. Lastly, the categories, (1) Navigation, (2) content/course information, (3) course structure, (4) instructional design, (5) learner/student support, (6) technology and multimedia, (7) assessment and feedback, and (8) interaction, collaboration, and communication, are important contributors to a quality blended learning course.

Which learning theory and blended models underpins a blended learning course?

From this research, rather than mixing the educational theories, I would suggest that blended learning research should gain ground on one or few related prominent theories. Constructivism could be applied as a guiding principle to blended learning courses to increase student's connectedness to the learning process and where learners could collaborate with peers and instructors. Additionally, for the RSP course, the flipped model whereby students rotate on a fixed schedule between face-to-face, teacher-guided practice in a classroom and a remote location for online learning.

Which instructional and design principles can be applied to develop a blended learning tutorial for RSP?

Instructional design consists in detailed requirements for designing, evaluation, development, implementation and resources intended to improve learning. Crawford, (2004, P. 143) states that "Instructional design is at the heart of each educational endeavour, as the "process revolves around the steps through which the thoughtful productions of superior products are created".

For this study, the ADDIE Model is a simple model to use, is cyclical in nature, and adheres to a holistic practice of instructional designing.

How can Data collected from the blended learning Rubric provide recommendations for redesigning a RSP blended course?

In part, an attempt was made to address the question: Is the developed rubric a valid and reliable instrument? The two most popular blended learning rubrics, Quality matters and Quality Assurance Rubric for Blended Learning by Commonwealth learning, informed the development of the rubric. These rubrics were developed based on research supported and published best practices. The rubrics have provided a direction in developing blended learning rubrics. The categories of the rubric were able to help in assuring that teaching, social and cognitive presence are present.

The scoring criteria were designed to capture the essential elements. The clear and concise scoring system within the rubric ensures that the evaluation process is straightforward and efficient while capturing the critical aspects of the learning resources.

Theme 1: Course design/review is much deeper than balancing learning opportunities

Whilst my argument throughout has been that blended learning extends beyond and is more complex than balancing online/offline/in person teaching and learning, the data shows that balancing pedagogies, methodologies and flexible approaches seem to make sense for any review/(re)design of the RSP course. Gachago (2023, p. 123) suggests that we ask ourselves the following questions:

What questions do we as learning designers or academic staff developers have to ask academics to guide them in this process? How can we engage with our own blind spots in this process, what structures do we need to put in place to alert us to these blind spots? How do we have to adapt learning design processes to ensure they mitigate for the causes of inequity – the prejudices of the human designers in the process, both their explicit and implicit personal biases, and the power of mostly invisible status quo systems of oppression (equityXdesign, 2016)

In essence, taking our own blind spots and biases into account and making those explicit when undertaking reviewing/redesigning courses must become part of the process.

Theme 2: Course design/review frameworks at the intersection of Col: social presence, cognitive presence and teaching presence

Krull and Hoosen (2023) state that the elements of Col on their own are not sufficient but require engagement at a deeper level. For example, social presence must go beyond checking whether the facilitator/students are online or not. Rather, what should be looked at is community building. Similarly, using models and learning theories are important for the course (and review, my emphasis) to guide the teaching (facilitation practices). Furthermore, Institutional frameworks (for example, the Wits Teaching and Learning Plan) (2020 – 2024 L&T Plan 2023 and the blended learning definition) outlines can ensure that the review/(re)design process is contextually relevant. Gachago et al., (2023) recommends that the pedagogies (teaching presence element) must include affect/care. Above all, it is not so much about the presence of the elements, but the intersections and enactment of the three components that the review process must also take into consideration.

5.2 Recommendations

The recommendations are based on the findings of the study. I am making recommendations in relation to all the categories that have received the lowest scores when evaluating the RSP course using the rubric. That said, these recommendations are applicable to other courses in general and can be applied based on contextual realities and/or relevance.

1. Redesigning the RSP Course

Garrison and Vaughan (2008) define redesigning as conceptualising and restructuring teaching and learning situations. I recommend redesigning the RSP course using design-based research. It is an iterative process which evolves through multiple cycles of design, development, testing/implementation and revision. By way of this iterative process, it is possible to gain practical insights and to generate pragmatic design

principles that help educational researchers to improve blended learning and its theoretical foundations (Hadjerrouit, 2007).

As a critical stage in design-based research, analysis must be followed throughout the process. The analysis phase allows one to define and understand the problem through exploration. I further recommend that evaluation needs to happen throughout the process and not only at the end. Evaluation was crucial and central in my research. It allowed me to carefully and constantly evaluate the RSP course for improvements to be made.

The best strategy for redesigning the RSP course, or any other course for that matter, is to begin by clearly defining the course objectives. This gives students the opportunity to understand what is expected of them resulting in them monitoring their own progress and taking more control of their learning. The course objectives must be aligned with the assessment, learner interaction, the course materials and course activities. Since this is an existing course, it is important that the objectives be driven from the students' presentations, debates or their perspectives. This will assist in ensuring that the RSP course is centred on active student learning and is not just teacher directed. McGee and Reis (2012) contend that when a course is designed from the learner perspectives, it is perceived that acceptance, success and retention are increased.

2. Learning theories

A learning theory is one of the driving forces of blended learning. In redesigning the RSP course, the constructivist approach allowed for collaborative learning, information sharing and discussions, between instructor and students. That said, another theory could be equally valuable. A good principle for course design and related research is to ground the design practice in theory as suggested by Gachago et al., (2023) who asserts that one must find the balance between the practice and the theory if one is to advance the knowledge base.

3. Course Materials

It remains important to continuously update content on the course to ensure contextual relevance. Such materials could include 2–3-minute YouTube or recorded videos that explain difficult, threshold concepts, introduce some synchronous activities, to foster collaborative interaction which, in turn, could help students to create a learning community that connects students. Additionally, introducing various online activities and educational resources such as educational games and forums could foster online presence and teaching presence. Last, but not least, e-assessments in the form of self-assessments could encourage students to reflect on and measure their own learning.

5.3 Implementation plan for the recommendations

Each of the suggested recommendations in the study require some technological capacity and time management by the RSP coordinators and tutors to achieve the Wits plan of “educational activities that promote active learning and student engagement”.

It is recommended that the RSP coordinators and tutors attend workshops, webinars, training sessions and short courses on professional learning, blended learning course design. These are offered by CLM Online Learning and Teaching Unit (COLT) and Centre for Learning, Teaching and Development (CLTD). Other Institutions will mostly likely have their own support offered by their respective learning and teaching units. Attending such sessions could enable them to incorporate the COI three components (teaching, cognitive and social presence) in the face-to-face and online classroom. It will further enable the tutors to identify digital tools and e-assessments that can be implemented for the course.

5.4 Recommendations for future research

The recommendation for future studies is justified based on the limitations of this study. Future study should conduct a quantitative study. Incorporating quantitative data, such as surveys or statistical analysis, which could have provided additional insights and a more balanced perspective on the course evaluation.

Other courses or programmes within the university can improve upon this study by expanding the number of courses evaluated. They should also implement the recommendations from this study by redesigning the courses and then evaluating it after redesign.

5.5 Conclusion

There are various definitions of blended learning. Most of these definitions consider blended learning as a combination of online and face-to-face components. This perspective is problematic due to its lack of a theoretical grounding. There must be a “balance” of what is being taught both online and face-to-face. It is not about having tutorials in class and supplanting them with an online component. Thus, this mini thesis explored learning theories, blended learning models, frameworks, instructional design models and rubrics used in reviewing blended learning courses. I concluded the study by recommending that for a good quality blended learning course, the Col components teaching, social and cognitive presence must be present and importantly the blended learning course must be underpinned by a learning theory, a blended learning model and instructional design model.

In the ongoing redesign and review of blended learning courses, Instructional Designers, educators, and tutors could enhance the quality of the blended learning course whilst simultaneously fostering a community of learners who are empowered to collaborate, inquire, and succeed in their educational endeavors.

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Appendices

A1: Ethics Clearance Certificate



Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Moagi

CLEARANCE CERTIFICATE

PROTOCOL NUMBER: H23/01/17

PROJECT TITLE

Re-designing the Road to Success Programme (RSP) as
a tutorial : Blended Mode

INVESTIGATOR(S)

Miss K Moagi

SCHOOL/DEPARTMENT

Wits School of Education/

DATE CONSIDERED

27 January 2023

DECISION OF THE COMMITTEE

Approved
Risk Level: Minimal

EXPIRY DATE

10 March 2027

DATE 11 March 2024

CHAIRPERSON

A handwritten signature in black ink, appearing to be "J Watermeyer".

(Professor J Watermeyer)

cc: Supervisor : Dr N Aghardien

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **A SIGNED COPY** returned to the Secretary electronically. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure be contemplated from the research procedure as approved I/we undertake to submit an amendment of the protocol to the Committee. **I/we agree to completion of a regular progress report. For Minimal and Low Risk studies, this is due annually on 31 December. For Medium and High Risk studies, this is due twice annually on 30 June and 31 December.**

Signature

_____/_____/_____
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

A2: Data Collection Instrument: Rubric

	(0) Information not available	(1) Poor	(2) Fair	(3) Good	(4) Very good	(5) Excellent	Score Total	Score Percentage
Navigation – The course site is well organised and easy to navigate from the course home page								
Navigation through the course	Navigation through the course is not available	Navigating the course is challenging	Some part of the course is easy to navigate	Most of the content is easy to navigate	Key areas of the course are easy to navigate	The entire course is easy to navigate		
Content Map	Content map not available	Unclear content map exists	Clear content map exist, contains some to the relevant content of the course	Clear content map exist, contains most of the relevant content of the course	Clear content map exist, contains key relevant content of the course	Clear content map exist that contains all relevant content of the course		
Instructions on how learners should engage with a blended learning course and what proportions of the course are online and face-to- face.	No instructions available	Unclear instructions	Some instructions are available but not clear	Most of the instructions exist	Key instructions are available but how learners engage with blended learning is unclear	All instructions on how to engage with a blended course, what proportions of online and		

						face-to-face are available		
Sufficient indication of where materials are to be used online and in face-to-face settings.	No indication available	Unclear indication	Some indication of where materials are to be used is available	Most sufficient indication of where materials are to be used are available	Key sufficient indication of where materials are to be used are available	Indication of where materials are used both on face-to-face and online are available.		
Course Content/Information- Clear description and overview of the course								
Course objectives	No course objectives available	Vague Learning objectives are stated	Some learning objectives are clearly stated	Most learning objectives are clearly stated	Key learning objectives are clearly stated	All learning objectives are clearly stated		

Course materials	No course materials list available	List of materials required are incomplete	A list of some course materials needed throughout the year is available	A list of most course materials needed throughout the year are provided	A list of key course materials needed throughout the year is available	A list of all materials needed throughout the year is available		
Course administration	No course information available	Limited course information available	Course information for some aspects of the course is available	Course information for most aspects for the course are provided	Course information for all key aspects of the course is available	Course information for all aspects of the course is available		
Calendar	No information of calendar dates available	Little information of calendar dates is available	Some information of the calendar dates is available	Most of the calendar dates are available	Major calendar dates are available	All calendar dates for all courses are available		

Instructor information and Contact methods	No instructor information and contact methods available	Partial instructor information and contact methods is available	Sufficient instructor information and contact methods is available	Most information on contact methods instructor information is available	Key information on contact methods and instructor information are available	A detailed information of the instructor and contact methods are provided		
Netiquette	No online and face-to-face etiquette available	Both online and face-to-face etiquette are inconclusive	Both online and face-to-face etiquette are simply stated	Both online and face-to-face etiquette are sufficiently stated	Both online and face-to-face etiquette are adequately stated	Both online and face-to-face etiquette are stated in depth		
Requirements for successful completion	No information available on the requirements for successful	Limited information available relating to successful	Partial information available relating to successful	Sufficient information available relating to successful	Adequate information available relating to successful	Detailed information available relating to successful		

	completion of the course	completion of the course	completion of the course	completion of the course	completion of the course	completion of the course		
Course Structure- Details out the elements of the instructional design								
Chunking	Course content is not chunked into manageable segments	Chunked content segments are not appropriately sized	Some course content is chunked appropriately into manageable segments	Most course content is chunked appropriately into manageable segments	Key course content is chunked appropriately into manageable segments	All course content is chunked appropriately into manageable segments		
Sequencing- The presentation is logical (e.g., sequential, well-paced)	Sequencing of content is non-existent	Content is not sequenced well, resulting in a bad learning pathway	Logical sequencing of some course content exist that allows for	Logical sequencing of Most course content exist that allows for the best	Logical sequencing of key course content exist that allows for the	Logical sequencing of all course content exist that allows for the best		

			the best learning pathways	learning pathways	best learning pathways	learning pathways		
Unit Overviews	No unit overview available	Unclear unit overviews available	Clear unit overviews exist that described some of the relevant information	Clear unit overviews exist that described most of the relevant information	Clear unit overviews exist that described key of the relevant information	Clear unit overviews exist that described all of the relevant information		
Instructional Design- The content is pedagogical sound.								
Learning activities / instructional materials are linked to learning outcomes.	No learning activities available	Few learning activities but not linked to learning outcomes	Some learning activities are available and linked to some learning outcomes	Most learning activities are available and linked to most learning materials	Key learning activities are available and linked to learning activities	All learning activities are available and linked to learning outcomes		

The LMS is learner friendly (e.g., minimal clicks, minimal external links or documents to access, as is feasible)	Course not available online	Course is cluttered and the LMS has a mobile APP	There are some clicks to accessing the course and the documents	There are few clicks to accessing documents and course	There are minimal clicks to accessing the documents and course	There are minimal clicks. The LMS has an APP. There are clicks to Faculty website		
Learning activities provide opportunities for interaction (student–student, student–instructor, and with materials / technology) that support active learning.	No interactions opportunities available	Less interactions happens in the course	Some interactions happen throughout the course	Sufficient interactions happen throughout the course	Adequate interactions happen throughout the course	All Interactions happens throughout the course.		
Learner/Student Support-Students have access to support online and face-to-face.								

Academic support and resources	No information on academic resources are available	Limited information for academic support is available	Some information for academic support is available	Sufficient information for academic support is available	Adequate information for academic support is available	Extensive information for academic support is available		
School information	No program, Faculty and Campus information are available	Partial information of the school is available	Sufficient information of the school is available	Most information of the school is available	Key information of the school is available	All information of the school is available		
There is a help option to support learners with FAQs, etc.	No help option available	There is a little help options available	There are some help options available	Most help options is available	Adequate help functions is available	Extensive help options is available		
Tutors are adequately trained and qualified to facilitate the blended course	No training done for tutors	Tutors were trained on only two topics	Some of the tutors were trained on some of the topics	Most tutors were trained on most topics	All tutors were trained but only on 4 topics	All tutors were trained on all topics and trainings that are required		

Multimedia Design/Technology-Multimedia consists of variety and a combination of pictures, audio, video and text								
Graphics	No use of graphics at all	Use of graphics are for decorative purposes only	Basic use of the six types of graphics	Sufficient use of the six types of graphics	Adequate use of the six types of graphics	Innovative use of the six types of graphics		
Video Aids	No use of video Aids	Limited use of video aids	Standard use of all video files	Suitable use of all video files	Relevant use of all video files	Comprehensive use of all video files		
Audio Aids	No use of audio Aids	Limited use of audio aids	Standard use of all audio files	Suitable use of all audio files	Relevant use of all audio files	Comprehensive use of all audio files		
Coherence Principle- Extraneous Materials	No use of pictures, sound and words	There is too much extraneous materials	There are some additional and unnecessary extraneous materials	There are little additional and unnecessary extraneous materials	There is limited additional and unnecessary extraneous materials	There is no additional and unnecessary extraneous materials		

Signalling	No use of devices to draw attention of students in complex graphics/animations	Limited use of devices such as colour or narrows to draw the attention of students in complex graphics/animatio ns as students learn better when attention is drawn to critical parts of the instruction	Some use of devices such as colour or arrows to draw the attention of students in complex graphics/animati ons as students learn better when attention is drawn to critical parts of the instruction	Adequate use of devices such as colour or arrows to draw the attention of students in complex graphics/anim ations as students learn better when attention is drawn to critical parts of the instruction	Substantial use of devices such as colour or arrows to draw the attention of students in complex graphics/animatio ns as students learn better when attention is drawn to critical parts of the instruction	Comprehensiv e use of devices such as colour or arrows to draw the attention of students in complex graphics/anim ations as students learn better when attention is drawn to critical parts of the instruction		
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Contiguity Principle-Graphics and Text	Text is not used with graphics	Corresponding texts are separated from the graphics	Some screens are structured; text is placed next to or withing graphics rather than below or beside the portion if the graphic it describes	Most screens are structured; text is placed next to or withing graphics rather than below or beside the portion if the graphic it describes.	Key screens are structured; text is placed next to or withing graphics rather than below or beside the portion if the graphic it describes	All screens are structured; text is placed next to or withing graphics rather than below or beside the portion if the graphic it describes		
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Contiguity Principle-Feedback display	No text feedback is provided	Text feedback is displayed on a separate screen from the question and answer	Some insightful text feedback is provided on the same screen as the question and response	Most insightful text feedback is provided on the same screen as the question and response	All insightful text feedback is provided on the same screen as the question and response	All insightful text feedback is provided on the same screen as the question and response. Additionally, audio feedback is provided		
Contiguity Principle- Instruction display	No text instruction is provided	Instruction to complete activities/exercise are placed on a separate screen	Some text instruction appears on the same screen in	Most text instruction appears on the same screen in which the	All text instruction appears on the same screen in which the steps are be applied	Some text instruction appears on the same screen in which the		

		from the application screen	which the steps are be applied	steps are be applied		steps are be applied. Additionally, audio instruction is provided		
Contiguity Principle-Timing	No use of correct time in the course	Inappropriate timing of narration for some multimedia used	Appropriate timing of narration for some multimedia are used	Appropriate timing of narration for most multimedia are used	Appropriate timing of narration for key multimedia are used	Appropriate timing of narration for all multimedia are used		
Modality Principle-Audio Narration	No use of audio narration with graphics	Audio is not synchronised with	Precise synchronisation for some audio	Precise synchronisation for most	Precise synchronisation for key audio with	Precise synchronisation for all audio		

		the corresponding graphics	with corresponding graphics	audio with corresponding graphics	corresponding graphics	with corresponding graphics		
Web tools	No use of web 1.0 web 2.0 or 3.0 tools	Limited use of web 1.0 web 2.0 or 3.0 tools	Some use of web 1.0 web 2.0 or 3.0 tools	Sufficient of web 1.0 web 2.0 or 3.0 tools	Adequate use of web 1.0 web 2.0 or 3.0 tools	Comprehensive of web 1.0 web 2.0 or 3.0 tools		
Assessment and Feedback-Assessment focuses on instructional activities designed to measure and evaluate students and Feedback is to provide students with their progress and regularly conducted and in various formats								
Formative Assessment types	No formative assessment available in the course	Assessment types are limited to only one type of assessment	Some varieties of formative assessment are used throughout the course	Sufficient variety of formative assessment are used	Adequate variety of formative assessment are used throughout the course	Wide variety of formative assessment are used throughout the course		

				throughout the course				
Formative Assessment Frequency	No formative assessment available in the course	Few formative assessments occur at regular intervals throughout the course	Occasional formative assessment occurs at regular intervals throughout the course	Multiple formative assessment occurs at regular intervals throughout the course	Frequent formative assessment occurs at regular intervals throughout the course	Continuous formative assessment occurs at regular intervals throughout the course		
Summative Assessment types	No summative assessment available in the course	Entire summative assessment does not measure student learning	Some sections of the summative assessment measures student learning	Enough sections of the summative assessment measures student learning	Most sections of the summative assessment measures student learning	All sections of the summative assessment measures student learning		

Student feedback Quality	Feedback is not provided to students in the course	Comprehensive feedback about student performance is limited	Comprehensive feedback on some of the assessment for student performance is provided	Comprehensiv e feedback on key assessment for students' performance is provided	Comprehensive feedback on most assessment for students' performance is provided	Comprehensiv e feedback on all assessment for students' performance is provided		
Student Feedback Frequency	Feedback is not provided to students	Feedback that is provided is infrequent	Feedback is consistently provided three weeks after the assessment	Feedback is consistently provided two weeks after the assessment	Feedback is consistently provided one weeks after the assessment	Feedback is consistently provided immediately to three weeks after the assessment		
Faculty and course Feedback	No opportunities for students to provide feedback	Students are offered limited	Students are provided with enough	Students are provided with sufficient	Students are provided with adequate	Students are provided with multiple		

		opportunities to provide feedback	opportunities to give feedback	opportunities to give feedback	opportunities to give feedback	opportunities to give feedback		
Alignment of Learning Objectives and Assessment	Assessment is not aligned with the learning objectives of the course	Assessment depicts limited resemblance and alignment to the learning objectives of the course	Some assessments align with the learning objective of the course	Major assessments align with the learning objective of the course	Most assessments align with the learning objective of the course	All assessments align with the learning objective of the course		
Assessment Instruction- Learners are provided with information on how they will be assessed in the course.	No instructions of the assessment available	Instructions for assessment is unclear	Clear instructions for some assessments are provided that assist students in	Clear instructions for most assessments are provide that assist students in	Clear instructions for key assessments are provide that assist students in understanding	Clear instructions for all assessments are provide that assist students in		

			understanding how to complete the assessment	understanding how to complete the assessment	how to complete the assessment	understanding how to complete the assessment		
Assessment Design	No assessment occurs in the course	Assessment contains only lower order thinking questions	Assessment contains mostly lower order thinking questions	Assessment contains both lower order and higher order thinking questions equally	Assessment contains both lower order and higher order thinking questions with a variety of both lower order and higher order thinking questions	Assessment contains balanced variety of both lower order and higher order thinking questions		
Rubric	No rubric available in the course							

Learner Progress	No gradebook available in the course	The gradebook is not updated	The gradebook is updated but only at the end of each semester or term to allow students to track their own progress	The gradebook is updated during the semester or term to allow students to track their own progress	The gradebook is always updated timeously to allow students to track their own progress	Well-structured and up to date gradebook is available to allow students to track their own progress		
Interaction, collaboration, and Communication								
Synchronous Interaction	Synchronous interactions are absent from the course	Synchronous interactions are used mostly for instructor focused activities	Synchronous interactions are meaningful but may not take full advantage of the real-time	Synchronous interactions are meaningful and take full advantage of the real-time	Synchronous interactions are meaningful and take full advantage of the real-time	A plethora of synchronous communication activities that benefit from real-time		

			presence of instructor or other students	presences of instructor and other students	presences of instructor and other students	interaction and facilitate “rapid response” communication		
Asynchronous Interaction	Asynchronous interactions are absent from the course	Asynchronous interaction strategy exists but do not promote critical reflection or other higher thinking order	Asynchronous communications are focused primarily on lower levels of thinking (e.g. Summarizing, describing and interpreting)	Asynchronous communication s sometimes require reflections or other higher order thinking	Variety of asynchronous interaction strategies promote critical reflection or other higher order thinking	Variety of asynchronous interaction strategies promote critical reflection and other higher order thinking aligned with the goals and learning objectives		

Student to Student Interaction	No opportunities of interaction are provided within the course for student-to-student interaction	Limited opportunities of student-to-student interaction within the course	Some opportunities of student-to-student interaction within the course	Sufficient opportunities of student-to-student interaction within the course	Adequate opportunities of student-to-student interaction within the course	Ample opportunities of student-to-student interaction within the course		
Instructor to Student communication	No communication exists between instructor and students	Limited communication exists between instructor and students	Some communication exists between instructor and students	Sufficient communication exists between instructor and students	Constant communication exists between instructor and students	Thorough communication exists between instructor and students		
Instructor to Student participation	Instructor never participates in activities with students	Instructor rarely guides students in their activities	Instructor sometimes guides students in their activities	Instructor rarely guides students in their activities	Instructor mostly guides students in their activities	Instructor always guides students in their activities		

Collaboration Tools	No collaborative tools exist	Limited collaborative tools exist	Some collaborative tools exist	Sufficient collaborative tools exist	Adequate collaborative tools exist	Extensive collaborative tools exist		
Active learning and Participation	Strategies that allow students to actively engage in the learning process are not present	Strategies that exist are limited in allowing students to actively engage in the learning process	Some strategies exist that allow students to actively engage in the learning process	Sufficient strategies exist that allow students to actively engage in the learning process	Adequate strategies exist that allow students to actively engage in the learning process	Insightful strategies exist that allow students to actively engage in the learning process		

Level of Measurement	Quantity
No information (0)	0%
Poor (1)	1-20 %
Fair (2)	20%-40%
Good (3)	40%-60%
Very Good (4)	60%-80%
Excellent (5)	80%-100%