SECTION A:	***QUALIFICATION DETAILS***																	
QUALIFICATION DEVELOPER (S)	University of Botswana																	
TITLE	Master of Education in Educational Technology													***NCQF LEVEL***		9		
FIELD	Education and Training		***SUB-FIELD***		Educational Technology									***CREDIT VALUE***		240		
New Qualification		✓	*Review of Existing Qualification*															
SUB-FRAMEWORK	*General Education*		*TVET*											*Higher Education*		✓		
QUALIFICATION TYPE	*Certificate*	*I*		*II*		*III*		*IV*		*V*				*Diploma*		*Bachelor*		
	Bachelor Honours			*Post Graduate Certificate*										*Post Graduate Diploma*				
	Masters		✓	*Doctorate/ PhD*														

RATIONALE AND PURPOSE OF THE QUALIFICATION

RATIONALE:

The capacity of developing countries to adopt and use new technologies remains weak when compared to the developed world. Many of the technology promises in these countries have not been realized, especially in educational settings. Technology is mostly used to support established practices rather than transform current practice into innovations for the future. In 2007, the Botswana parliament adopted the Information Communications Technology (ICT) Policy (popularly known as *Maitlamo* Policy) whose aim is to provide a roadmap to drive transformation in different sectors of the society through effective use of ICTs. Through this policy, government has to date, initiated several projects meant to provide ICT services to Batswana, notably, the provision of computers in schools, connecting rural communities and many other initiatives. However, the government is not satisfied with the uptake and utilization of these resources in improving people's lives (eGovernment Strategy, 2011-2016). In education in particular, the expectation has been that technology would bring about improvements in students' learning, nonetheless, its use in learning remains low as denoted by both small-scale studies and national reports (Education and Training Sector Strategic Plan, 2015-2020; Boitshwarelo, 2009; Kgalemang, Leteane, Moakofhi, Pholele, & Phiri, 2015; Final BGCSE Evaluation Report of 2009). Lack of skills has been cited by these studies as one of the main obstacles to the use of technology.

The National Development Plan (NDP) 11 (2017-2023) (section (4.40), laments the slow pace at which eGovernment programs are being implemented and the general lack of effective use of ICT by the wider society to improve service delivery and various other aspects of life. The NDP11 recognizes the critical role that ICT can play in transforming the economy of the country and as such it commits to strengthening measures that can accelerate ICT uptake such as ICT training of personnel in various sectors. This qualification is a contribution to this endeavor.

Botswana aspires to be a knowledge-based economy by the year 2036 (Vision, 2036) as such adoption of technology and innovation is a key condition in propelling the country to such status. The country's Education and Training Sector Strategic Plan (ETSSP 2015-2020) (strategic priority area 10) identifies utilization and integration of ICT as one of the critical strategic priority areas in setting a trajectory that would strengthen students' learning and equip them with skills needed in a knowledge-based economy. Goal 4 of the Sustainable Development Goals (SDGs) calls for countries to ensure that they provide all their citizens with inclusive quality education to improve the livelihood of individuals, communities and societies at large. Technology is one tool that has proven to have potential to enhance the quality of education, through providing students with an array of resources and opportunities to facilitate comprehension of concepts and cultivate critical skills needed for development both at personal and global level.

PURPOSE:

The purpose of this Master's qualification is to train students to be able to:

- Apply fundamental concepts of technology adoption in learning and other workplace environments to facilitate technology uptake in such contexts.
- Develop appropriate technology tools that are relevant to their contexts and can enhance job performance in various situations.
- Utilize contemporary technologies to bring about the required school, workplace and community transformation to meet the needs of the 21st century.
- Conduct research using innovative methodologies to induce workplace and community development as well as novel ways of using ICT.

ENTRY REQUIREMENTS (including access and inclusion)

The minimum entry requirements for admission to the Master of Education in Educational Technology qualification shall be:

- NCQF level 7 or its equivalent.

- Direct entry application through Recognition of Prior Learning (RPL) and Credit Accreditation and Transfer (CAT) if accessible to all candidates through institutional policies in line with the national RPL and CAT policies.

SECTION B	***QUALIFICATION SPECIFICATION***
GRADUATE PROFILE (LEARNING OUTCOMES)	***ASSESSMENT CRITERIA***
1: Demonstrate understanding of fundamental technology adoption concepts in learning and other workplace environments.	1.1: Analyze theories of education and relate them to educational technology. 1.2: Evaluate various technology adoption models and identify appropriate models for different contexts. 1.3: Compare various Instructional Systems Design Models and select appropriate models to use to design particular training programs. 1.4: Analyze principles and standards that guide technology use.
2: Apply various technology concepts to design and develop technology adoption and implementation programmes.	2.1: Apply technology design principles in designing technology implementation plans for the work place 2.2: Identify and utilize appropriate technology adoption models to guide technology adoption in specified contexts 2.3: Use Instructional Design models to develop curricular, lessons plans and training programmes. 2.4: Design innovative teaching methodologies that accommodate technology use.
3: Develop appropriate technology tools that can be used to enhance job performance in various situations.	3.1: Select appropriate technology tools to use to enhance work in various situations.

	3.2: Customize existing technology tools to meet various contextual needs. 3.3: Design different types of technology tools that can be used to advance job performance in various workplace environments.
4: Solve problems/issues related to the use of technology to improve practice and show potential to act as leaders in this area.	4.1: Develop technology-based programmes for a real-world audience, including in places with limited technology resources. 4.2: Critically assess existing practices and provide justified recommendations to improve practice. 4.3: Systematically analyze given challenges and design new forms of activity to provide solutions using technology. 4.4: Apply innovative and appropriate technology solutions in workplace environments. AC 4.5: Demonstrate ethics in developing and using technology resources AC 4.6: Evaluate technology programs
5: Conduct independent inquiry into educational technology to contribute meaningful new knowledge to the field technology.	5.1: Develop research proposals to carry out intervention studies to facilitate technology use in workplace settings. 5.2: Conduct research on technology utilization. 5.3: Report findings of educational research in a scholarly manner. 5.4: Make recommendations that contribute to the development of the field of educational technology. 5.5: Contribute to the body of knowledge in Educational Technology through discourse and research.

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SECTION C	***QUALIFICATION STRUCTURE***				
COMPONENT	***TITLE***	***Credits Per Relevant NCQF Level***			***Total*** ***(Per** Subject/ Course/ Module/ Units)*
		Level [9]	***Level [ ]***	***Level [ ]***	
FUNDAMENTAL COMPONENT *Subjects/ Courses/ Modules/Units*	Integrated Foundations of Education	15			15
	Educational Research	30			30
CORE COMPONENT	Foundations of Technology Application in learning	15			15
	Introduction to Activity Theory and the Change Laboratory Methodology	15			15
	Design and Development of Technology Tools	15			15
	Instructional Systems Design	15			15
	Dissertation	120			120
ELECTIVE/ OPTIONAL COMPONENT *Subjects/Courses/ Modules/Units*	Leadership and Technology	15			15
	Entrepreneurship	15			15

SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL

TOTAL CREDITS PER NCQF LEVEL

NCQF Level	*Credit Value*
9	240
TOTAL CREDITS	240

Rules of Combination:

(Please Indicate combinations for the different constituent components of the qualification)

Component	**Level**	**Number of credits**
Fundamental	9	45
Core	9	60
Elective	9	15
Dissertation	9	120
Total		**240**

Students can only choose one elective from the course menu provided.

ASSESSMENT ARRANGEMENTS

1.The qualification shall be assessed through formative and summative methods, with the following weightings:

Formative assessment: 60%

Summative assessment: 40%

2. Assessment will be carried out by accredited and registered assessors.

MODERATION ARRANGEMENTS

1. Internal and external moderation will be carried out in accordance with institutional policies and in line with national policies on moderation.

2. Moderators must be registered and accredited with BQA

RECOGNITION OF PRIOR LEARNING

N/A

CREDIT ACCUMULATION AND TRANSFER

N/A

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

Learning pathways

Horizontal pathway

- Master's in Instructional Design and Technology
- Master's in Educational Technology Leadership
- Master's in Curriculum and Instruction
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Vertical pathway

- PhD in Educational Technology
- PhD in Instructional Systems Design

Employment

Job opportunities for graduates of Master's in Educational Technology are:

- Instructional Designer

- Lecturers in public or private tertiary institutions
- eLearning Developer
- Curriculum Development Specialist
- Training and Development Specialist
- Interface and Multimedia Designer.
- Training Director
- Technology Integration Specialist
- Computer Studies Teacher (Primary to Secondary)
- Corporate Trainer
- Designer of Training Materials
- Consultancies
- Project Manager

QUALIFICATION AWARD AND CERTIFICATION

Qualification award

To be awarded Master of Education in Educational Technology qualification, a candidate is required to achieve a minimum of 240 credits.

Certification

Candidates meeting prescribed requirements of Master of Education in Educational Technology qualification will be issued a certificate and an official transcript.

REGIONAL AND INTERNATIONAL COMPARABILITY

The qualification has been compared with universities both regionally and internationally.

The following has been benchmarked against;

1. Master in Education Technologies and Instructional Design- University of Malawi (Malawi)
2. M.Ed. in Curriculum and Instruction with a specialty in Educational Technology- The University of Florida (USA)
3. Masters in Digital Technologies, Communication and Education (MA)- University of Manchester (UK)

Similarities

The naming of the qualifications used for benchmarking and the current one share a common feature, which is the inclusion of the words ‘Education’ and ‘Technology’. The phrasing of the titles differs but it is clear that the focus of the qualifications is the application of technology in education.

The entry requirement for all the qualifications is a Bachelor of Arts Degree from any education discipline and related fields field. This is because Educational Technology is an applied discipline, as such, entrants into this qualification should have expertise in a particular area and be ready to learn how to apply technology to improve practice in their discipline.

The present qualification, the one in Malawi and in Florida share a similar structure in that they require students to take a full load of Educational Technology and Research courses before they can start working on their thesis. The core courses offered are similar, they focus on equipping students with core knowledge and skill in the area of Educational Technology. For example, all the qualifications offer courses that equip students with skills to develop digital literacy tools. The fundamental courses provide students with essential knowledge about the field of education in general, and also equip students with research skills. This course-work-load model is regarded as the best option for this qualification because Educational Technology is a relatively new discipline in the country, therefore, students need as much grounding as possible in the area through course work.

All the qualifications share two main outcomes, which are, for students to be able to i) infuse technology in learning and other work-place environments ii) conduct research on effective technology integration in order to improve practice.

Regarding employment, graduates for all the qualifications are trained to work in both formal and informal settings, guiding the integration of technology in the workplace by assuming positions such as Instructional Designer, Curriculum Development Specialist, Technology training Director, Director of online education, Teacher/Lecturer, Consultant and Technology Coordinator.

Differences

The naming of the qualifications used for benchmarking indicate an additional specific area that qualifications focus on in addition to the broad field of Educational Technology. For example, in Malawi it is Instructional Design, in Florida it is Curriculum Design and in Manchester it is Communication. For this current qualification, the name is only ‘Educational Technology’ with no additional specific area of focus. This is because the intention of this qualification is to address all the major areas of Educational Technology equally.

The qualification in Manchester is biased in favour of thesis-based study. The qualification offers students compulsory courses in only two subjects (Research methods and Educational Technology and Communication) the rest of the courses are optional and students spend more time working on their thesis.

The duration of the qualifications for full-time study ranges between 1-2 years. This is because some universities such as Florida use a ‘quarter’ system which is shorter in duration (3 months), therefore, students are able to take more courses in a year as compared to those using the semester system, which is longer (about 5 months).

The proposed master's qualification is comparable to the ones used for the benchmarking exercise regarding the types, scope and duration of courses offered. The qualification therefore meets international standards and the benchmarking was therefore useful in providing critical benchmarks for improving the quality of the qualification.

REVIEW PERIOD

The qualification will be reviewed every five years.