QUALIFICATION SPECIFICATION SECTION A						
QUALIFICATION DEVELOPER	Botho University					
TITLE	Post Graduate Diploma in Educational Technology			**NCQF LEVEL**		8
FIELD	Educational and Training			**SUB-FIELD**	Educational Technology	
New qualification	✓	Review of existing qualification				
SUB-FRAMEWORK	General Education		TVET		Higher Education	✓
QUALIFICATION TYPE	Certificate		Post Graduate Diploma	✓	Bachelor	
	Bachelor Honours		Master		Doctor	
CREDIT VALUE					120	

RATIONALE AND PURPOSE OF THE QUALIFICATION

RATIONALE

There is a declining general education results year in and year out at different levels of education this impacts in the quality of the pull of future workers basing of the level of knowledge, skills, and competencies. The immerging ICT trends in education locally and globally are moving at a faster rate and technology has been introduced in other sectors and proved to bringing quality out put and efficiency in the system which is assumed it can do the same to the education system of any country. The introduction of STEM methodologies is hinged on practical, investigative, and problem solving which is key to economic development. The need for teaching and learning with technology has become imperative in times of pandemics where schooling is expected to continue while learners are at home. Teaching online has become a new paradigm shift in times of crises such as covid19.

Teachers in different levels of education lack in skills of using technology teaching and learning and this has negatively impacted on the school's outcome as performance of learners seem to be declining year in and year out. The use of STEM methodologies lacks in several teachers which also negatively impact

on a bid to generate a knowledge-based economy. In times of crises that would warrant the need to teach on line most educators are not prepared for such a move and the Post Graduate Diploma in Educational Technology (PgDET) attempts to close such gap by instilling in teachers the need to support what they do in conventional classroom with online activities through various technological and virtual platforms.

Post Graduate Diploma in Educational Technology (PgDET) qualification will empower teachers in transforming both teaching and learning in classroom-based, online, and blended education by introducing the digital tools and resources 21st-century learners will need to explore, understand, and express themselves.

Post Graduate Diploma in Educational Technology (PgDET) will transform teaching by creating new, connected relationships between teachers, students, and content to improve instruction and create a more personalized form of learning. Educational technology has the potential to expand learning opportunities, enrich experiences, and support greater equality of access in and around the world.

The Post Graduate Diploma in Educational Technology (PgDET) qualification will address the need to integrate technology in teaching and learning to mitigate the challenges learners face when they only rely on face to face teaching. This will necessitate high levels training teachers in this regard of technology aided teaching hence the development of this qualification, (Post Graduate Diploma in Educational Technology -PgDET).

Botswana through its Vision 2036 envisages having an educated and informed nation. Post Graduate Diploma in Educational Technology (PgDET) qualification is in line with Vision 2036 pillar of “An Educated, Informed Nation”. The qualification content has been designed to address the curriculum knowledge, skills and competency requirements of the teachers from primary to tertiary levels of education as outlined in Vision 2036, the Long-Term Vision for Botswana. As has been aptly captured by Vision 2036 drafters, *Education has not been adequately geared to the needs of the country and to the job market. The challenge is to place greater emphasis on technical and practical subjects, and business skills - the skills that are most needed*, the PgDET has tried to address these shortcomings through the use of methodologies that help students understand how to develop use technology to the needs of the communities as well as effectively implement. The Botswana Human Resource

Development Council (HRDC) endeavors to improve quality of human resources in the country and to fully utilize their potential and contribute to economic development (Republic of Botswana, 2013).

One of HRDC's mandate is to encourage research and innovation and coordinate, promote and support tertiary education. According the HRDC report of 2015, only a few institutions programs in the country which translates to limited human capital in the country (Republic of Botswana, 2015). In answering this mandate, we will be launching a graduate Qualification aimed at providing more opportunities for use of technology and innovation in the country.

The development of PgDET is in line with the Botswana Education and Training Sector Strategic Plan (ETSSP 2015-2020) whose mandate is to make a significant milestone towards collective efforts in bringing about a more diversified, knowledge-based economy. This can only be done through a planned and careful development of human capital, and PgDET fits well in ETSSP because in refocusing education and training towards fulfilment of social and economic, PgDET becomes a tool that can be used in an attempt to realize the goals of ETSSP as enshrined in the Revised National Policy on Education (RNPE), the National Development Plan, Vision 2016 and as well as the Millennium Development Goals. It is also important to note that ETSSP of 2015 also on the utilization of ICT, which is more relevant this programme, (PgDET).

Effort to introduce ICTs into the education sector by the MoESD is through the implementation of the Thuto-net component as part of the national Maitlamo Policy on ICT. However, although there are many initiatives within Botswana dealing with ICT the education efforts have largely been geared towards the deployment of ICTs to institutions via the provision of computers. Access however is still below the standards and numbers demanded are serious concern for the lower levels of education

The development of PgDET is also a response to the Revised National Policy in Education (RNPE) regarding the target of "achieving universal access to education" in Botswana. The core drive of RNPE is "to focus the education system on mainly providing programs that will lead to higher quality of human capacity and productivity, leading to a better-quality life and prosperity for all "(NDP11, hence the importance of technology in education cannot be overemphasized. As also mentioned above, the development of the PgDET is also in line with the Botswana federation of Trade Union (BFTU) 2007 Policy BFTU which calls for quality assurance in institutions of higher learning for sustainable

development. This quality cannot be achieved without direct focus on the quality of teachers and teacher education and the PgDET has been developed with this focus on quality.

PgDET has also been developed in line with the SADC Protocol on Universal Free Education. As a result of the SADC Protocol on Universal Free education as explained by Kotecha (2012), "SADC Member States have been reasonably successful in the area of education enrolment. Net Enrolment Ratios (NER) at in schools appears to be healthy since 2004. There has been marked increase in education enrollment in the SADC region such that there is need to match this growth with capacity building in equal measure in the education sector (Kotecha, 2012). This again calls for a relevant curriculum that can capture the aspirations of these huge numbers of students as well as to capture national interest with regards to the relevant of relevant skills in graduates, technology is paramount important in teaching environment with massification of education.

In alignment to the global agenda for sustainable development, the recommendations on skills development from the Education and Training sector as given in section 8.3 of the **HRDC: Top occupations in high demand** document, include:

8.3.1 Work-Place Learning

8.3.1.1 Increase postgraduate qualifications across sectors where necessary.

8.3.1.2 Upgrade primary and secondary school teachers from diploma to degree.

8.3.1.3 Continuous professional development for school administration and teaching staff.

(Refer to the list of top 10 occupations in high demand of HRDC)

A market need analysis was carried out to establish whether the qualification was viable. The responses from the survey were positive with an inkling that the qualification was contemporary, needed and sustainable. (***Please refer Appendix 1: Market Need Analysis***).

Practicing teachers at all levels of education, including those in, primary, secondary and higher education, corporate training professionals and other education professionals, need that educational technology 'touch point" to enhance their knowledge of how technology can be integrated in the learning and teaching process. The quality of teaching and its impact on learning is critical for sustainable development, hence the role of educational technology in achieving student centered learning in a networked environment cannot be overemphasized. To be able to equip the citizens with relevant

competencies for global mobility and dealing with the contemporary digital learners, it is imperative that first and foremost, teachers be equipped with the right competencies that will bring the best out of the learners. This entails enhancing the effectiveness in STEM (Science, Technology, English, Mathematics) and higher education using sound methodologies and taking into consideration different learning abilities.

It is to this effect that the **Postgraduate Diploma in Educational Technology (PgDET)** qualification is being developed: to achieve the 2036 Botswana vision by equipping the participants in the qualification with the knowledge, skills and competencies of teaching in environments of networked learning communities and information technologies. It is therefore, imperative that that the contemporary crop of teachers be equipped with the educational technology theory and research in order to have a sound understanding of the implications of educational technologies in the teaching and learning processes including in course delivery, assessment and in the management of the learning experience.

The **purpose** of this qualification is to produce graduates who will be able to apply highly specialized knowledge, skills and competences to:

- Integrate the 21st Century educational technologies into teaching and learning.
- Equip practicing teachers with advanced skills of using technology and media to be able to improve performance in schools.
- Conduct basic research to make informed decisions for complex educational technology problems.
- Design experiences that will enhance knowledge and skills acquisition in institutions of learning.

ENTRY REQUIREMENTS (including access and inclusion)

The minimum entry qualification is:
Bachelor's Degree, NCQF Level 7.

QUALIFICATION SPECIFICATION SECTION B	
GRADUATE PROFILE (LEARNING OUTCOMES)	**ASSESSMENT CRITERIA**
LO 1: Demonstrate knowledge highly specialized knowledge in in the application of educational technology in the class	1.1 Articulate use of education theories informing pedagogy and andragogy principles in technology usage in the acquisition of knowledge. 1.2 Apply the six main digital skills when teaching and learning (communication, information search, collaboration, creation, assessment, and personal or professional development).
LO 2: Design Virtual Learning Environments (VLEs) that enable learners to access learning material.	2.1 Design a virtual learning management system that enable learners to access learning resources. 2.2 Plan virtual learning activities that nurture the social, emotional, cognitive, and physical development of learners. 2.3 Implement relevant interactive tools and techniques by using technology in learning and teaching. 2.4 Plan lessons that incorporate the meaningful use of collaborative tools. 2.5 Assess learning and monitor online learning activities by effectively using virtual platforms. 2.6 Evaluate the effectiveness of a technology-enhanced curriculum
LO 3: Select appropriate technology for integration in the classroom to support the teaching and learning in and outside the classroom	3.1 Identify and use technologies that enhances learning effectively in different classroom contexts 3.2 Integrate appropriate technologies into teaching and learning.

	3.3 Evaluate the principles of ethics and digital literacy in the teaching, learning, and design process. 3.4 Integrate technology into curriculum planning 3.5 Use gamification and e-learning simulations.
LO 4: Demonstrate research skills that inform decision making in using educational technology	4.1 Use technology in: • collecting data on learner performances. • collecting learner feedback on their learning experiences. • Writing a research proposal 4.2 Use online platforms in collecting research data 4.3 Use zoom platforms in defending research proposal/findings 4.4 Use educational technology tools in submitting the final research project
LO 5: Demonstrate proficiency in using technology aided teaching and learning	6.1 Articulate the pedagogical rationale for collaborative and interactive learning. 6.2 Identify the skills needed by learners in the digital age. 6.3 Plan a lesson that adopts the flipped classroom approach. 6.4 Assess the extent on which a disruptive nature of technology can be managed in the classroom. 6.5 Locate and integrate learning and community resources in solving educational challenges.

	6.6 Use collaborative technologies in advancing learning and communication among the student body. 6.7 Present, as part of a group, a collective vision for advancing technology as a learning tool. 6.8 Integrate concepts of global citizenship and interdependence by using educational technology. 6.9 Use social media and interactive technology in improving learning and teaching.
LO 6: Demonstrate the practical usage of educational technology tools in day-to-day school activities.	7.1 Develop lesson plans and curriculum plans that integrate technology in an effective and meaningful way. 7.2 Integrate educational technology in designing teaching aids, teaching notes, and teaching 7.3 Use educational technology tools in transforming teaching and learning. 7.4 Apply change processes used in other fields to improve usage of educational technology tools

QUALIFICATION STRUCTURE

SECTION C

	Title	Level	Credits
FUNDAMENTAL COMPONENT Subjects / Units / Modules /Courses	Foundations of Educational Technology	8	10
	Emerging Technologies in Education	8	10
	Integrating Technology into Instructional design	8	10
CORE COMPONENT Subjects / Units / Modules /Courses	Technology in Special Needs Education	8	10
	Online Teaching and Learning	8	20
	Research Methods in Educational Technology	8	20
	Integrating technology into curriculum	8	20
	Research Project	8	20
Total Credits			**120**
ELECTIVE COMPONENT Subjects / Units / Modules /Courses	No Elective		

Rules of combinations, Credit distribution (where applicable):

The qualification represents All outcomes for the compulsory unit standards unit standards making up 120 credits. For the participating student to be awarded the qualification, the following rules apply:
A minimum of 120 credits must be achieved as follows:

All fundamental and core components constituting **120** credits (Level 8) are compulsory.

Credit and level distribution:

No.	Component	Level and Credits
1.	Fundamental	Level 8: 30

	2.	Core	Level 8: 90	
	4.	Elective Component	N/A	
			Total: 120 credits	

ASSESSMENT & MODERATION ARRANGEMENTS

This qualification is assessed and moderated as follows:

Formative Assessment:

Formative assessment or continuous assessment include:

1. Group/ individual Presentation/Assignments 20 %
2. Tests 20%

These Form of Assessments contribute 40% of the final grade

Summative assessment:

1. **Written examination 30% of the final grade**
2. **Research Project 30%**

Final assessment at the end of each semester contribute 60% of the final grade.

Pass requirements:

A learner should obtain a final mark of 50% or more in the module to pass the module. The final mark is constituted of the formative assessments (50%) and the summative assessment (50%).

Moderation:

There will be an external and internal moderation which is a quality measure. Assessment and moderation will be done by a BQA Accredited Assessor/Moderator

Pre-assessment Moderation:

This moderation is carried out before assessment tasks are administered to students. All submitted sets of question papers & marking keys are shared with the moderators. Each assessment pack should be moderated by two Moderators where possible by having an internal external moderator. The question paper moderation report should be filled in for each question paper. Moderator report will be shared with question paper setter so that moderator feedback will be considered when finalizing the question paper.

Post-assessment moderation or moderation of marking:

- Moderation of completed assessment tasks is categorized as post-assessment moderation. It is carried out after assessment tasks have been marked. The set of answer scripts and marking keys are shared with the moderators. At least 10% of the answer scripts in a module should be moderated during post assessment moderation.
- Both internal and external moderation will be done in-line with the Moderation policy of the Institution.
- Assessment and moderation shall be carried out as per ETP's policies which are aligned to BQA National policies. The ETP will engage only BQA accredited assessors and moderators to carry out assessment and moderation.

RECOGNITION OF PRIOR LEARNING (if applicable)

Recognition of Prior Learning Policy (RPL & CAT)

i) RPL and CAT shall apply as per individual provider policies in line with national RPL and Cat policies.

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

Learning Pathway:

The **PgDET** articulates horizontally to either of the following:

- Post Graduate Diploma in Curriculum Development (Educational Technology).
- Bachelor (Hons) of Technology Education

Vertical Articulation: NCQF Level 9.

The **PgDET** articulates vertically to:

- Master of Education in Educational Technology
- Master of Education in Higher Education
- Master of Education in Special Needs Education
- Master of Education in Leadership and Management

Employment Pathway:

The graduates of the programme (**PgDET)** may work as:

- Education officers
- Heads of institutions
- Educational Technology Teachers
- Technology infused Curriculum designers
- Educational technology advisors

QUALIFICATION AWARD AND CERTIFICATION

Candidates meeting the prescribed requirements will be awarded the qualification in accordance with the qualification composition rules and applicable policies. To be eligible for the award of the Postgraduate Diploma in Educational Technology, candidates should have obtained a minimum of 120 credits.

REGIONAL AND INTERNATIONAL COMPARABILITY

University Cape Town: Post graduate Diploma in Educational Technology (PGDip) in South Africa (SAQA QUAL ID: 93852)

This qualification was benchmarked with the UCT's PGDip in Educational Technology, which is accredited by SAQA. The purpose of the PGDip was to provide potential and practicing educators, corporate trainers, and anyone responsible with the appropriate skills that will help teach in the 21st Century.There are a number of similarities including that both qualifications are offered on block release and sharing of similar target audiences.

Similarities with UCT PGDip:

Both qualifications are offered in block release mode. Both qualifications require at least a holder of a Bachelor's degree or equivalent to enroll. Both qualifications are offered through a combination of 'block' contact session and on-line environments. The target audience is similar in both institutions. These include potential and practicing educators, corporate trainers, and anyone responsible to e-Learning with an opportunity to understand the effects that any use of emerging technologies have on the practice of learning. Both qualifications have 120 credits although the number of modules is different.

Differences with UCT PGDip:

In addition to block release mode, this qualification will be offered on full time and part-time basis for both face to face and distance learners. The Part time students can take at most forty credits per semester, leading to a minimum of one and a half years, whereas the PGDip takes over two years on part time. (***see Appendix 2 for more information).***

Internationally:

Indira Gandhi National Open University (IGNOU) (New Delhi, India)

The design of the PgDET was also influenced by global trends in the corporate world as well as curricula being offered by major universities such as IGNOU. The IGNOU PGDET aims at equipping

the participant teachers with the necessary skills needed for them to familiarize with the different educational technologies and their educational purposes in practice.

Similarities with IGNOU PGDET:

The entry requirements for both qualifications are similar in that they enroll any bachelor's degree from a reputable institution. This requirement is aligned with all the other two institutions requirements discussed above. The Medium of Instruction for the programme is English and the minimum duration is 1 year and maximum 2 years. The two qualifications have no electives. The target population is similar comprising of practicing teachers at different levels, corporate professionals, education professional and others interested in the field of educational technology

Differences with IGNOU PGDET:

The credit system is different in that the IGNOU PGDET 1 credit is equivalent to 30 notional hours, whereas for this qualification, 1 credit is referent to 10 notional hours. This equates to 180 notional hours per module at IGNOU as compared to 200 notional hours for this qualification. Whilst this qualification offers 6 compulsory modules, IGNOU offers 5 compulsory modules. (***see Appendix 2 for more information)***

National University Graduate Certificate in Educational Technology (NIUE), Singapore. The **National University Graduate Certificate in Educational Technology** focusses in technology integration in PK-12 education set up.

Similarities with National University Graduate Certificate in Educational Technology

The entry requirements for both qualifications are similar in that they enroll any bachelor's Degree from a reputable institution. The target population is similar comprising of practicing teachers at different levels, corporate professionals, education professional and others interested in the field of educational technology

Differences with National University Graduate Certificate in Educational Technology:

The credit system is different in that the National University Graduate Certificate in Educational Technology credit uses 18 quarter units for each module. The National University Graduate Certificate in Educational Technology offers 4 compulsory modules, yet this qualification offers 6 compulsory

modules. The qualification from NIUE emphasizes on technology integration (in PK-12 education setting) whereas PgDET also looks the integration at higher levels of education; experience design; and authoring of online courseware. (***see***

Appendix 2 for more information).

There are a number of similarities and differences between these three qualifications. This qualification arguably more aligned to the above training institutions in terms of module offerings and credit values. This has a unique taste in that it takes the participating students through a wide range of themes including education, how to design experiences for the 21st century learner within classroom contexts, the actual production of courseware, integration of the technologies in the curriculum, and lastly for continual improvements: action research.

REVIEW PERIOD

The qualification will be reviewed after every 5 Years