

Assessing the Use of Performance Based Assessments and Portfolios-Principles and Processes of Outcome Based Curriculum in Botswana

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ABSTRACT

Background is that Human Resource Development Council Review (2024) highlights a skills mismatch in Botswana's labor market. The review points out that graduates often possess more theoretical knowledge than practical skills, underscoring the need to profile skills and competency gaps (<https://www.resaerchgate.net/profile/sue-askew/publication/27469567-potfolios-for-learning-assessment-and-professional-development-in-highereducation>). Rationale for using Performance Based Assessments and Portfolios-Principles and Processes of Outcome Based Curriculum is that they help educators apply principles, processes and procedures of developing, assessing and moderating Outcome Based Curriculum / syllabus / content to equip learners to execute enabling outcomes-performance criteria outcomes-learning outcomes-culminating outcomes (apply-analyze-synthesize-create-evaluate-solve) real life and hypothetical situations. This study evaluates the application of Principles and Processes of Outcome Based Curriculum-Performance Based Assessments and Portfolios in Botswana. It investigates whether the Principles and Processes of Outcome Based Curriculum is reflected during the implementation of Botswana curriculum, specifically Foundations of Education curriculum at Serowe College of Education. Qualitative research approach; purposive sampling was used to select respondents who could best provide answers to the research objectives in this study. Qualitative analysis was used to synchronize and analyze data from the following various sources using triangulation under each research objective or theme: Principles of assessment and moderation in Outcome Based Curriculum; qualitative interviews from Course: FOE 111 Educational Psychology (Theories of Child Development and Human Learning) & Course: FOE 122 Early Childhood Education; ethnographic design participant in-depth immersion personal observations and experiences of the researcher; Question and answer during FOE meeting; End of Semester Moderation and Quality Assurance Report; relevant theories and philosophies. Findings: Principles and Processes of Outcome Based Curriculum are applied in Performance Based Assessments and Portfolios in Botswana. Model or approach to assessing Performance Based Assessments and Portfolios lived in Botswana-Serowe College of Education Curriculum is a hybrid of [Portfolios:-execute enabling outcomes (small skills)-performance criteria outcomes-learning outcomes-culminating outcomes (apply-analyze-synthesize-create-evaluate-solve) in real life and hypothetical situations]] + [End of Semester written examinations conditioning learners to apply-analyze-synthesize-create-evaluate-solve in real life and hypothetical situations under a specific allocated time to enhance learners ability to function efficiently and effectively under a given time frame]. Quality assurance

standards that Performance Based Assessments and Portfolios should meet are applied in Botswana. The two models or approaches to assessing an Outcome Based Curriculum (OBE) in Botswana are in line with Principles and Processes of Outcome Based Curriculum and therefore should be retained or maintained. Recommendations: To implement OBC effectively, consider the following steps: Define Clear Learning Outcomes: Ensure that each course has specific, measurable outcomes that students are expected to achieve. Design Assessment Methods: Choose assessment methods that align with these outcomes. This could include portfolios, projects, presentations, exams, and other activities <http://en.wikipedia.org/wiki/outcome-based-education>. Provide Continuous Feedback: Use formative assessments to give students regular feedback on their progress. Summative Evaluation: Decide whether to use portfolios, exams, or a combination of both for final assessment. Grading System: Determine whether to use a pass/fail system or a more detailed grading scale. Significance of the study is that results obtained in this work will help ensure that a hybrid of [Portfolios:-execute enabling outcomes-performance criteria outcomes-learning outcomes-culminating outcomes (apply-analyze-synthesize-create-evaluate-solve) in real life and hypothetical situations] + [End of Semester written or practical examinations where learners apply-analyze-synthesize-create-evaluate-solve in real life and hypothetical situations under a specific allocated time to enhance learners' ability to execute skills efficiently and effectively in given specific times].

Keywords: Principles, Assessment, Moderation, Portfolio, Outcome Based Curriculum.

INTRODUCTION

The researcher perceives principle as a set / group of rules or laws derived from observation and they explain phenomena. A set / group of principles gathered together explains a phenomenon such as how Outcome Based Education Curriculum should be developed, assessed and moderated. Immediately after assessment process follows the moderation process. The document Botswana Qualification Authority, (2022, p.3 of 16) titled 'Quality Assurance Standards 3 – Criteria and Guidelines for Accreditation of Learning Programmes, Document No: QAS 3; Issue No: 4; Effective date: 11.02.2022' define the following terms as follows: According to Lombard, Meyer, Warnich, and Wolhuter, (2018, p.34) assessment means 'to measure something by collecting information which will be used for some purpose'. Moderator and Moderation: Botswana Qualification Authority, (2022, p.4 of 16) further educates us that 'moderation is a process which ensures that assessment of outcomes described in the set standards or qualifications are fair, valid, reliable and consistent. Scott (2001, p.64) informs us that portfolio requires varying processes for the collection of evidence, such as critical self-evaluation or reflection by the learner. Fielding (2006, p.3) informs us that Outcomes-Based Education is inherently a successful demonstration of a set of learning experiences or enabling outcomes taking place at the end of a culminating point.

Background is that Outcome Based Curriculum concept traces back to a 1930s study involving 300 colleges and 30 high schools in the United State of America. Outcome Based Education (OBE) takes a shape of a 'teaching method focused on mastering small units' (Benjamin Bloom, (1968) in his book titled 'Learning for Mastery. Educational Research Bulletin 4. Curriculum Council. Outcomes Focused Learning Environments' Springer Link.

<https://link.springer.com/chapter/10.1007/978-1-4020-9041-781>). There is a misconception that OBE eliminates grades.

Wikipedia. 'Outcome based Education.' http://en.wikipedia.org/wiki/Outcome-based_education. The outcomes concept does not promote a specific method; it is about ensuring students master necessary skills (the outcomes) decided by the community. Spady Model, involve expanded support for students needing more time to master material. These programs may use grades of incomplete until mastery is achieved. OBE does not require the elimination of homogeneous grouping. Outcome Based Curriculum was implemented in Serowe College of Education (in Botswana) in the year 2024, following: Press Agency - BOPA (Daily News Friday March 22, 2024 No 055 page 4) "Human Resource Development Council (HRDC). HRDC Reviews Show Skills Mismatch" reports: "Annual skills reviews conducted by the Human Resource Development Council (HRDC) indicate the existence of a skills mismatch to the needs of the labour market in this country (Botswana) says the Minister of Education and Skills Development, Dr Douglas Letsholathebe...He added that the graduates had acquired more theory than practical skills...the main objective of the audit was to profile skills and competency gaps" (p. 4).

Rationale for using Principles and Processes of Outcome Based Curriculum is that they help educators develop, assess, moderate, quality assure Outcome Based Curriculum / syllabus / content equipping learners to execute enabling outcomes-performance criteria outcomes-learning outcomes-culminating outcomes (apply-analyze-synthesize-create-evaluate-solve) in real life and hypothetical situations. Aim of this study is to examine the role of Performance Based Assessments and Portfolios-Principles and Processes of Outcome Based Curriculum in Botswana. Purpose of the study is to assess the extent to which Principles and Processes of Outcome Based Curriculum; relevant approaches to assessing OBE; quality assurance standards are applied in Performance Based Assessments and Portfolios in Botswana.

Significance of the Study

Ensure that Principles and Processes of Outcome Based Curriculum; relevant approaches to assessing OBE; quality assurance standards are robustly reflected in Performance Based Assessments and Portfolios in Botswana.

Problem Description

Statement of the Issue / Problem: There is a debate as to whether Outcome Based Curriculum offered at Serowe College of Education is indeed Outcome Based Curriculum.

Motivation for the Study

Press Agency - BOPA (Daily News Friday March 22, 2024 No 055 page 4) "Human Resource Development Council (HRDC). HRDC Reviews Show Skills Mismatch" reports: "Annual skills reviews conducted by the Human Resource Development Council (HRDC) indicate the existence of a skills mismatch to the needs of the labour market in this country (Botswana) says the Minister of Education and Skills Development, Dr Douglas Letsholathebe.....He added that the graduates had acquired more theory than practical skills...the main objective of the audit was to profile skills and competency gaps" (p. 4).

Research Objective

- Find out whether Performance Based Assessments and Portfolios-Principles and Processes of Outcome Based Curriculum are applied in Botswana.
- Find out whether different approaches to assessing an Outcome Based Curriculum (OBE) are applied in Botswana.
- Evaluate whether quality assurance standards that different Performance Based Assessments and Portfolios should meet are applied in Botswana.
- Determine the necessity of retaining or discarding the different approaches to assessing an Outcome Based Curriculum (OBE) in Botswana school curriculum.

MATERIALS AND METHODS USED IN THE RESEARCH

This section details materials and methods used in the research to ensure reproducibility. Data from various sources is presented here.

Principles and Processes of Outcome Based Curriculum

Quality Assurance Criteria for Performance Based Assessments and Portfolios in Outcome Based Curriculum. Principles are established rules that explain how a phenomenon exists, unfolds, and operates. Principles are the first litmus test to gauge the validity or authenticity of any Performance Based Assessments and Portfolios in Outcome Based Curriculum. Modise (2022) in his paper titled 'Course name: APR 617 Principles and Processes of Outcome Based Curriculum' presented the following principles and processes of developing, assessment, moderation, quality assurance in Outcome Based Curriculum:

Principle 1:

Fielding (2006, p. 4) informs us that outcome is a successful demonstration of what one has learnt; what one has achieved in a specific learning context and any Outcomes-Based Curriculum must have the following two types of outcomes: Critical across-field outcomes (these are also called critical outcomes, or essential outcomes).

Principle 2:

Fielding (2006, p.3) Outcome Base Curriculum is inherently a successful demonstration of 'set of learning experiences' or 'enabling outcomes'at the end of a culminating point.

Principle 3:

Gipps (1994) reports that portfolio design should fit the purposes they are intended to assess. Each portfolio requires certain specific evidence or competencies to be produced to fit the requirements of that portfolio.

Principle 4:

Foster and Masters (1996, p. 2) indicate that all portfolios are "sources of evidence for judgment of achievements in a range of contexts, from classroom monitoring of student performance to higher-stakes summative assessment. All contain "pieces of evidence". The more relevant the evidence, the more useful it is for inferring a student's level of achievement in learning area". Lombard, Meyer, Warnich, and Wolhuter (2018, p 10) who wrote: "When one considers curriculum design from an Outcomes Based Education perspective, the components proposed by the traditional curriculum models are still relevant. OBE curriculum design always begins

with considering the desired outcomes <https://research.acer.edu.au/ark/5/>. Curriculum Design - the art of arranging or conceptualizing major components of the curriculum such that each subject in a school has its own logical order where objectives, content, teaching and learning take a specific pattern cherished by the curriculum developer and society. The researcher is of the opinion that interest of society of Botswana currently is to produce graduates who can effectively and efficiently execute skills 'in a given specified time' and therefore this qualifies an outcome based curriculum to have 'written examinations' or practical tests at the end of the semester to condition graduates to effectively and efficiently execute skills 'in a given time'.

Principle 5:

Portfolio requires varying process for the collection of evidence, such as critical-self-evaluation or reflection by the learner (Scott, p.64).

Principle 6:

Final Assessment of Portfolios: Portfolio is a process of collecting products or performances or competencies at various stages, as the learner does each competency gradually progresses towards attainment of the learning outcome where the learner eventually shows evidence that a certain learning outcome has been achieved. During formative assessment, performance of learners is continuously assessed and feedback or appraisal is given to learners as compilation process of the portfolio advances. During formative assessment, learners are expected to respond to feedback or appraisal from the assessor by means of reflection reports. However, when a portfolio is assessed as final product, a final mark is allocated as summative assessment. The final assessment of this final product is final, formal, and irrefutable and no feedback is given to which the learner must respond (Lombard, Meyer, Warnich, and Wolhuter, 2018, p. 99). When a portfolio is assessed as a final product, a final mark is allocated through summative assessment. This final assessment is formal and irrefutable, with no feedback given to which the learner must respond. The portfolio process involves collecting products, performances, or competencies at various stages, gradually progressing towards the attainment of the learning outcome. During formative assessment, learners receive continuous feedback and are expected to respond through reflection reports. However, the final summative assessment marks the end of this process, providing a definitive evaluation of the learner's achievements (Dutoit and Vandeyar, 2004, p.123-124).

Principle 7: Teacher-Centered Methods-Performance-Based Portfolio:

The teacher demonstrates a skill, and students practice until they are competent. This method aligns with Behavioral Learning Theory (Pavlov's Classical Conditioning) and Social Learning Theory – learning by observation (Bandura). Learner-Centered Methods-Performance-Based Portfolio: The teacher arranges the environment for students to develop, synthesize, formulate, analyze, critique, distinguish, and innovate. Methods include research, experimentation, individual study, discovery learning, debate, and case study.

Principle 8:

In Standard-Based Assessment (SBA) within Outcomes-Based Education, students are assessed against a set standard. They either pass or fail based on whether they meet this standard. Students' progress at their own pace, and regardless of how long it takes, the result is binary:

Pass or Fail. This approach ensures that all students eventually meet the required standards, even if some take longer than others.

Principle 9:

Components of Standard-Based Assessment: Performance Criteria (PC), Specific Outcomes (SO), and Learning Outcomes (LO) together form the basis of Standard-Based Assessment (SBA). These components ensure that assessments are aligned with the intended learning outcomes and performance standards.

Principle 10:

Scott (2001, p. 66-67) and Lombard, Meyer, Warnich, and Wolhuter (2018, p. 115) emphasize the importance of rubrics in guiding assessors on how to award marks for each competency. A rubric is a rating scale that assesses learner performance according to predetermined expectations or performance criteria. It indicates the extent to which a certain learning outcome has been reached.

Principle 11:

The moderation process should ensure that the assessment of outcomes described in the set standards or qualifications is fair, valid, reliable, and consistent. Moderators should ascertain whether the assessment meets these criteria. This principle is highlighted in the Botswana Qualification Authority (2022) documents.

Principle 12:

Both internal and external moderation should be conducted according to applicable policies and regulations. These processes should be carried out by Botswana Qualification Authority registered and accredited moderators.

Principle 13:

Secure Assessment Processes: Education and Training Providers (ETPs) must establish secure assessment and moderation processes. Moderators should ensure that assessments are secure and protected from any form of malpractice.

Principle 14:

Assessments must be appropriate and consistent with the qualification level. Moderators use checklists and rubrics to judge student work against set standards. External moderators from other institutions, such as the University of Botswana, are engaged to ensure consistency and appropriateness.

Principle 15:

The Education and Training Provider (ETP) must ensure that the level of complexity, scope, and sequencing of assessment activities adequately capture the learning outcomes for the learning program. Moderators should verify that these aspects are upheld to ensure comprehensive and effective assessment of student learning.

Principle 16:

Use of Formative and Summative Assessments Education and Training Provider (ETP) should use both formative and summative assessments to evaluate student learning:

Principle 17:

Schedule of Assessments: Education and Training Provider (ETP) should provide a schedule of assessments at the commencement of the learning program. This schedule should include the type, credit, due date, and assessment criteria for each assessment. Moderators should ensure that this schedule is in place and adhered to, ensuring transparency and consistency in the assessment process.

Principle 18:

The Education and Training Provider (ETP) must implement policies for the Recognition of Prior Learning (RPL) and Credit Accumulation and Transfer (CAT). This ensures that learners' previous experiences and credits are recognized and appropriately transferred. Moderators should ensure that these policies are upheld to provide fair opportunities for all learners.

Principle 19:

ETPs must have procedures in place for updating and amending learner attainment records. In Botswana schools and Colleges of Education, no single lecturer is allowed to enter or amend student marks alone. Changes must be made with the consent of other members after a departmental resolution, ensuring transparency and accuracy.

Principle 20:

Personnel conducting assessments and moderation must be registered and accredited with a recognized body. This ensures that assessments are conducted by qualified individuals, maintaining the integrity and quality of the evaluation process.

Principle 21:

Assessment of Experiential Learning: Assessments, especially of experiential learning such as practical or industrial attachments, must be designed in terms of predetermined outcomes and criteria. This ensures that the assessments are aligned with the learning objectives and provide a fair evaluation of the learners' skills and knowledge.

Principle 22:

Involvement of Multiple Parties in Assessment: A range of parties should be involved in the assessment of learners, including self-assessment, peer assessment, tutor assessment, and assessment by workplace mentors. The above principles finds support in [Botswana Qualification Authority, 2022, p.9 of 16]: [Botswana Qualification Authority, 2022, p.10 of 16].

Principle 23:

Microsoft AI Powered Copilot informs us of Different Approaches / Model / Curriculum Design / School of Thought to assessing an Outcome Based Curriculum (OBE) as follows:

23.1 Principle:***Outcome Based Curriculum (OBE) Model / Curriculum Design / School of Thought 1***

Assessment is strictly portfolio-based, no exams:

- Formative Assessment: Continuous assessment through various activities aligned with each learning outcome (LO).

- **Summative Assessment:** Compilation of all activities and evidence for each LO into a single portfolio, which is then submitted for evaluation
- **Grading:** No traditional marks are awarded. Instead, students receive a 'Pass' or 'fail' based on whether they meet the required outcomes.
- **School of Thought 1** emphasizes a holistic and continuous assessment approach, focusing on the process and evidence of learning rather than a final examination. This method aligns well with the principles of Outcome Based Education (OBE), which prioritize achieving specific competencies and skills. <https://en.wikipedia.org/wiki/outcome-based-education>.

Principle 23.2:

Outcome Based Curriculum (OBE) Model / Curriculum Design / School of Thought 2

Portfolio as formative assessment:

- **Formative Assessment:** Portfolios are used to track ongoing progress and provide feedback through the course
- **Summative Assessment:** Traditional exams are used to evaluate students' understanding and mastery of the course material at the end of the term
- **Grading:** Marks are awarded, and students receive grades such as Distinction, Merit, Credit, Pass, or Fail, in addition to the portfolio assessment.
- **School of Thought 2** combines both formative and summative assessments, using portfolios to monitor progress and exams to measure final achievement. This approach provides a more traditional grading system, which can be beneficial for benchmarking and external validation. <https://en.wikipedia.org/wiki/outcome-based-education>.

Principle 23.3:

Outcome-Based Curriculum-Functional Analysis Model-Curriculum Design / School of Thought 3 - Applying Components of Botswana Outcome-Based Curriculum-Functional Analysis Model-Curriculum Design stages and processes:

Profiling and Alignment with National Credit and Qualifications Framework (NCQF)

Ensure that exit outcomes and assessment criteria align with the National Credit and Qualifications Framework (NCQF). The goal is to produce graduates who meet the standards described in the NCQF. National Assessment Policy should be integrated into measurement and testing.

Learning Unit Specification (LUS) / Module / Free Standing Block

- **Title:** Clearly define the title of the unit or module.
- **Date:** Include the date of creation or revision.
- **Level:** Specify the level, e.g., Level 6.
- **Credit Value:** Indicate the credit value for the entire program, not just individual units.
- **Access Statement:** Provide a rationale for the unit/module.
- **Standards and Outcomes:** Each student must meet specific standards to achieve the outcomes.
- **Top-Down Curriculum Development:** Develop assessments before teaching to ensure alignment with desired outcomes.

- **Learning Outcomes (LO):** Define what students are expected to perform, with teachers facilitating the demonstration of these outcomes.
- **Performance Criteria (PC):** Set the level of performance required for each learning outcome.
- **Range:** Outline the breadth and depth of content for each performance criterion or learning outcome.
- **Learning Notes:** Detail what learners will study.
- **Evidence:** Specify the evidence required to demonstrate capabilities, such as portfolios.
- **Higher Verbs:** Use higher-level verbs from Bloom's Taxonomy to ensure rigor and complexity.
- **Credits:** Determine the number of credits to be earned by each student per semester.

Comparability Matrix

- **Qualification Comparability:** Determine which other institutions or countries have similar qualifications.
- **Program Comparability:** Assess which other institutions or countries offer similar programs.

Implementation of Outcome-Based Curriculum: When implementing an Outcome-Based Curriculum (OBC), there are two primary approaches to consider:

Teach and Assess Each Learning Outcome (LO) Sequentially: This approach involves teaching one LO at a time and assessing it before moving on to the next. This ensures that students have mastered each outcome before progressing, allowing for targeted feedback and support.

Teach All Learning Outcomes and Assess Later: In this approach, all LOs are taught first, and assessments are conducted afterward. This method can provide a more holistic view of student learning and allows for integrated assessment tasks that cover multiple outcomes.

Academic Regulations: Academic regulations are crucial for maintaining standards and ensuring consistency across institutions. Academic regulations should be read in conjunction with subsequent relevant regulations and policies.

Quality Assurance: Quality assurance is essential to ensure that the curriculum and assessments meet the required standards.

learningportal.iiep.unesco.org <https://learningportal.iiep.unesco.org/en/issue-briefs/improve-learning/curriculum-and-expected-learning/outcomes>
skilltrans.com <https://skilltrans.com/blog/outcome-based-education>

Principles of Outcome-Based Education (OBE)

- **Focus on the End Goal:** OBE begins with a clear understanding of what students need to achieve. The focus is on practical skills and competencies rather than just theoretical knowledge. **Competency Focus:** Emphasize practical competencies that students will need in the field, supported by theoretical knowledge.

- **Student-Centered Approach:** This approach shifts the focus from teacher-centered instruction to student-centered learning, considering the needs and abilities of each learner.
- **Clear Learning Outcomes:** Specific learning outcomes or objectives are defined for each course or program. These outcomes guide the entire curriculum design, instruction, and assessment process.
- **Alignment of Curriculum, Instruction, and Assessment:** Teaching methods, learning activities, and assessments are all aligned with the desired outcomes. This ensures that every aspect of the educational process is focused on achieving these outcomes.
- **Holistic Assessment:** Assessment in OBE includes a variety of evaluation methods such as projects, presentations, and practical demonstrations, going beyond traditional exams.
- **Continuous Improvement:** OBE encourages ongoing reflection and improvement. Educators regularly assess and adjust their teaching methods to enhance student learning.
link.springer.com/3pdfs.semanticscholar.org/4pearson/highered.com/5oer.pressbooks.pub/6ijsre.com/7unesdoc.unesco.org/ubr/isa.ub.bw

Stages/Processes of Curriculum Planning, Design, Development, Implementation, and Evaluation

1. **Planning: Evidence Gathering:** Collect data on educational needs, labor market demands, and student performance. **Stakeholder Involvement:** Engage educators, industry experts, and policymakers to identify key competencies and outcomes.
2. **Design: Top-Down Approach:** Define desired outcomes and competencies as per the NCQF. **Alignment with NCQF:** Ensure all learning outcomes and assessments are aligned with the National Credit and Qualifications Framework. **Sequence and Balance:** Organize content from simple to complex, ensuring balanced distribution of topics and teaching methods. **Learning Unit Specification (LUS):** Develop detailed specifications for each unit/module, including title, date, level, credit value, access statement, learning outcomes, performance criteria, range, learning notes, and evidence requirements.
3. **Development: Assessment First:** Design assessments that align with the desired learning outcomes before developing instructional materials. **Curriculum Resources:** Create or source materials that support the learning outcomes and assessments. **Quality Assurance:** Ensure all materials and assessments meet the standards set by the Botswana Qualifications Authority (BQA).
4. **Implementation: Bottom-Up Approach:** Implement the curriculum starting from the classroom level, allowing teachers to adapt and refine based on student needs. **Teacher Training:** Provide professional development to ensure teachers are equipped to deliver the new curriculum effectively. **Continuous Feedback:** Collect feedback from teachers and students to make necessary adjustments.
5. **Evaluation: Monitoring and Evaluation:** Regularly assess the effectiveness of the curriculum through student performance data and feedback. **Alignment with Policies:** Ensure the curriculum aligns with national policies such as the ETSSP, National Assessment Policy, Inclusiveness Policy, and RNPE Policy. **Quality Assurance Reports:** Quality assurance is essential to ensure that the curriculum and assessments meet the required standards. **Departmental Spreadsheets:** Each department should submit a spreadsheet detailing the quality assurance measures for each LO and Performance

Criterion (PC). These spreadsheets should be reviewed by authorities to ensure that the questions and assessments are of high quality and aligned with the curriculum standards. The above principles find support in:

learningportal.iiep.unesco.org

<https://learningportal.iiep.unesco.org/en/issue-briefs/improve-learning/curriculum-and-expected-learning-outcomes> skilltrans.com <https://skilltrans.com/blog/outcome-based-education> ieomsociety.org reva.edu.in/jetir.org

ahaslides.com <https://ahaslides.com/blog/outcome-based-education> en.wikipedia.org k12academics.com

https://www.k12academis.com/education_reform/outcome-based-education/what-obe

Principle 24:

After Final Assessment of Portfolios in a particular institution, a student can proceed with the same portfolio at another institution till he /she gets the portfolio right.

Personal In-depth Ethnographic Participant Observation and Experiences of The Researcher:

The researcher was born on 02-02-1970 and grew up in the Republic of Botswana. The researcher got immersed in in-depth ethnographic participant observation as follows:

- **Workshops attended:** Diploma in Primary Education Programme Development workshop held at Serowe College of Education from 26th February to 1st March 2024. Assessment Design Workshop. Diploma in Secondary Education & Diploma in Primary Education. 24th June -02nd August 2024. Serowe College of Education.
- **Participation:** Consultative meeting on Quality Assurance Standard 3- Criteria and Guidelines for Accreditation of Doctoral Learning Programme hosted by the Botswana Qualification Authority on 26th March 2024. Directors Board (Teacher Training and Technical Education) on 15th August 2024. Outcome Based Education Regulations. Academic Regulations for University of Botswana affiliated Colleges of Education Diploma Programme. Senior Lecturer at Serowe College of Education facilitating Outcome Based Curriculum: Course: FOE 111 Educational Psychology (Theories of Child Development and Human Learning) & Course: FOE 122 Early Childhood Education.

The preceding in-depth ethnographic participant observation makes the researcher to come up with a story to tell as follows: Serowe College of Education- Foundations of Education Department (FOE) held a meeting on 24th April 2005 at Serowe College of Education Library. 0930 hours -1230 hours. The meeting was attended by 9 members of the FOE Department. A member of the College Assessment Committee who is also a member of the FOE Department presented CA1 CA2 CA3 marks of the 134 students taking Course: FOE 122 Early Childhood Education. All the 134 students were 80% and above – Distinction. The College Assessment Committee member asked: Can we get feedback from attendants?

Respondent 1: I do not see a symmetric normal distribution curve where some students get marks below the average (50%) and others above the average (50%). I only see marks above 50%.

Respondent 2: Even if the students had been given several opportunities to rehearse the skills; given feedback on three occasions before the final mark was awarded, there should be that weak student who would get below Distinction or below average.

Respondent 3: I used to be a lecturer at Francistown Technical College of Education- in Botswana where we were implementing Outcome Based Curriculum. We graded the students with Pass / Fail. Pass was awarded if the student got 100% and not below 100% in all skills. If it happened that a student fails a particular skill, a student was given an opportunity to rehearse and execute that skill again and again until he /she mastered the skill 100%. The fact that a student would be awarded a Pass if he / she had executed all skills to 100%, makes me find no problem accepting that the 134 students taking Course: FOE 122 Early Childhood Education are 80% and above – Distinction.

Respondent 4: I used to lecture at Jwaneng Vocation Technical College & at Oodi College of Arts (in Botswana) that offered Outcome Based Curriculum. We graded students as follows: Yet to Complete / Complete. If all skills have been mastered and executed by the student to the satisfaction of the standards, we would award 'Complete' and if the student had not executed some skills to the satisfaction of the set standards, we would award 'Yet to Complete' I do not have problem with the current school of thought used here in Serowe College of Education:

Portfolio as Formative Assessment

- Formative Assessment: Portfolios are used to track ongoing progress and provide feedback through the course
- Summative Assessment: Traditional exams are used to evaluate students' understanding and mastery of the course material at the end of the term
- Grading: Marks are awarded, and students receive grades such as Distinction, Merit, Credit, Pass, or Fail, in addition to the portfolio assessment.
- School of Thought 2 combines both formative and summative assessments, using portfolios to monitor progress and exams to measure final achievement.

Respondent 5: I (the researcher) do not find a problem with different approaches / school of thoughts to assessing OBE. Hybrid of [Portfolios:-execute enabling outcomes-performance criteria outcomes-learning outcomes-culminating outcomes (apply-analyze-synthesize-create-evaluate-solve) in real life and hypothetical situations] + [End of Semester written and or practical examinations where learners apply-analyze-synthesize-create-evaluate-solve in real life and hypothetical situations under a specific allocated time enhance learners' ability to execute skills efficiently and effectively in given specific times.

If a student passes End of Semester written and or practical examinations but had failed CA1 CA2 CA3, my opinion is that the ETP can take the following paths: Follow the current regulation of ratio CA (60): Exam (40) and award Distinction; Merit; Credit, Pass, Fail. The other path: The process of 'rehearse-execute the skill-reassess' will continue until the student passes the skill or CA so that when we say the student had passed, we mean that the student had mastered all skills in CA1 CA2 CA3 plus End of Semester written and or practical examinations.

Document Data from Serowe College of Education Course: FOE 111 Educational Psychology (Theories of Child Development and Human Learning) & Course: FOE 122 Early Childhood

Using document data from Course: FOE 111 Educational Psychology (Theories of Child Development and Human Learning) to:

- Find out whether Performance Based Assessments and Portfolios-Principles and Processes of Outcome Based Curriculum are applied in Botswana.
- Find out whether different approaches to assessing an Outcome Based Curriculum (OBE) are applied in Botswana.
- Evaluate whether quality assurance standards that different Performance Based Assessments and Portfolios should meet are applied in Botswana.
- Determine the necessity of retaining or discarding the different approaches to assessing an Outcome Based Curriculum (OBE) in Botswana school curriculum.

Unit Title: FOE 111 Educational Psychology (Theories of Child Development and Human Learning):

Course Lecturer: Dr. Modise and Mr. Dibe. CA1 Group Written Essay: With examples from classroom learning settings, discuss the concepts of foundations of education and their implications to learning. Evidence: 3-5 pages Word processed essay. Due: 26th September 2024. CA2 Case study followed by questions: Demonstrate understanding of Educational psychology, its significance and implications to teaching and learning in your own subject area. Evidence: 3-5 pages Word processed essay. Due: 18th October 2024. CA3: Group-written research report & PowerPoint presentation: Critically evaluate theories of learning and human growth and development under the following sub-headings: Background of the theory; Principles that underpins the theory; Domains of development as explained by the theory; Implications for both teaching and learning; Short-comings of the theory. Evidence: Group-written research report outlining all theories as ranged; PowerPoint presentation of no more than 45 minutes. Due: 18th October 2024.

Unit Title: FOE 122 Early Childhood Education:

Course Lecturer: Dr. Modise and Mr. Dibe. Scope: CLO 1 - CLO 3. CA1: Performance Based Assessment Portfolio. Group assignment-25th January-28th February 2025. (a) Develop a lesson plan, lesson activities, teaching aids, lesson notes, facilitate learning using *The Montessori Method* by Maria Montessori; *The Education of Man* by Friedrich Froebel; *Democracy and Education* by John Dewey; *The Montessori Method* by Montessori and *Orbis Pictus*. Scope: CLO 1 to CLO 5. CA2: Written Test-26th March 2025. Scope: CLO 4 – CLO 5 CA3: Performance Based Assessment Portfolio-write up-on activities during transition and language skills. Given: 3rd March 2025- 17th April 2025.

Part 1: Activities During Transition (CLO4)

1. **Explain the importance of transitional activities:** Read the provided summary of "Experience and Education" by Dewey. Write a short essay (300-400 words) discussing why transitional activities are important for young children. Include real-life examples of how transitional activities can support children's adjustment to new environments and routines.

2. **Demonstrate the use of transitional activities in teaching:** Select two transitional activities (e.g., group discussions, reflective exercises, hands-on projects). Create a detailed lesson plan for a 30-minute session incorporating these activities. Justify your choices and explain how these activities bridge different phases of learning.
3. **Explain readiness activities:** Study the summary of "The Montessori Method" by Montessori. Write a brief report (200-300 words) outlining what readiness activities are and how they prepare children for more advanced learning. Provide examples of readiness activities that develop foundational skills.

Part 2: Language Skills (CLO5):

1. **Use listening skills:** Develop a 20-minute activity that requires children to practice attentive listening (e.g., storytelling, music, interactive conversations). Write a reflection (200-300 words) on how this activity will help develop children's listening skills.
2. **Demonstrate the correct use of speaking skills:** Plan a 15-minute role-playing activity to encourage correct speaking skills. Describe the activity in detail and explain how it promotes verbal expression in a supportive environment. Write a short justification (150-200 words) of the chosen activity.
3. **Apply reading skills:** Design a 30-minute literacy activity using engaging materials, visual aids, or interactive elements. Write a brief description (150-200 words) of the activity and how it fosters reading skills.
4. **Implement writing skills:** Create a 20-minute activity that supports writing skills through fine motor development (e.g., drawing, tracing, writing exercises). Write an explanation (150-200 words) of how this activity aids in developing children's writing skills.

Support Notes: Foundations of Education – FOE122 Early Childhood Education. Course Lecturer: Dr. Modise

CLO1: Demonstrate Knowledge on the History of Early Childhood Education:

1. **Describe early childhood education:** *Summary from "The Montessori Method" by Maria Montessori:* Montessori emphasizes child-centered education, where the learning environment is tailored to the child's developmental needs, promoting independence and natural curiosity. *Summary from "The Education of Man" by Friedrich Froebel:* Froebel highlights the importance of play in early education, advocating for learning through structured activities and interaction with the environment. *Summary from "Democracy and Education" by John Dewey:* Dewey promotes experiential learning, where education is seen as a social process that prepares children for participation in democratic society.
2. **Friedrich Froebel: "Menschenziehung" (The Education of Man):** Froebel's most important treatise, outlining his educational principles and methods. **"Kindergarten":** Froebel's concept of kindergarten, emphasizing play and hands-on learning. **John Dewey: "Democracy and Education":** Dewey's influential work on educational philosophy, emphasizing experiential learning and democratic classrooms. **"Experience and Education":** Dewey's exploration of the role of experience in education and the need for continuous learning. **Maria Montessori: "The Montessori Method":** Montessori's foundational text on her educational approach, focusing on self-directed learning and child-centered education. **"The Absorbent Mind":** Montessori's insights into the development of young children and the importance of a prepared

environment. **John Amos Comenius: "The Great Didactic"**: Comenius' comprehensive work on education, advocating for universal education and practical learning methods. **"Orbis Pictus"**: One of the first illustrated books for children, emphasizing visual learning and the importance of engaging educational materials.

3. **Explain the purpose of early childhood education:** *Summary from "The Montessori Method" by Maria Montessori*: The purpose is to foster holistic development—physical, social, emotional, and cognitive—through a prepared environment. *Summary from "The Education of Man" by Friedrich Froebel*: Early childhood education aims to nurture the innate potential of children through guided play and creative activities. *Summary from "The Great Didactic" by John Amos Comenius*: Education should be universal, accessible to all, and focused on developing practical skills and moral values.
4. **Discuss Froebel's kindergarten:** *Summary from "The Education of Man" by Froebel*: Kindergarten is a structured yet flexible environment where children learn through play, songs, and hands-on activities, fostering social and cognitive development.
5. **Explain the advantages and disadvantages of the kindergarten:** *Summary from "The Education of Man" by Froebel*: Advantages include fostering creativity and social skills, while disadvantages may include lack of structured academic focus and variability in program quality.
6. **Describe Dewey's progressive education:** *Summary from "Democracy and Education" and "Experience and Education" by Dewey*: Progressive education is characterized by active learning, problem-solving, and critical thinking, with a focus on preparing children for active citizenship.
7. **Describe education for young children using the Montessori Method:** *Summary from "The Montessori Method" and "The Absorbent Mind" by Montessori*: Education is child-centered, with mixed-age classrooms and hands-on learning materials that promote self-directed exploration and development.
8. **Discuss Comenius' universal education:** *Summary from "The Great Didactic" and "Orbis Pictus" by Comenius*: Education should be holistic, including visual learning and practical skills, accessible to all children regardless of background.
9. **Apply ideas learnt from the proponents to learning:** *Combination of above summaries*: Incorporate play-based learning (Froebel), experiential and democratic education (Dewey), child-centered approaches (Montessori), and universal accessibility (Comenius) in Botswana schools to foster well-rounded development. **Apply** the works of the authors to teaching and learning early childhood children in Botswana schools. Friedrich Froebel "Menschenziehung" (The Education of Man): Froebel's most important treatise, outlining his educational principles and methods. "Kindergarten": Froebel's concept of kindergarten, emphasizing play and hands-on learning. John Dewey "Democracy and Education": Dewey's influential work on educational philosophy, emphasizing experiential learning and democratic classrooms. "Experience and Education": Dewey's exploration of the role of experience in education and the need for continuous learning. Maria Montessori "The Montessori Method": Montessori's foundational text on her educational approach, focusing on self-directed learning and child-centered education. "The Absorbent Mind": Montessori's insights into the development of young children and the importance of a prepared environment. John Amos Comenius "The Great Didactic": Comenius' comprehensive work on education, advocating for universal education and practical learning methods. "Orbis Pictus": One of the first illustrated books for children, emphasizing visual learning and the

importance of engaging educational materials. NB: - You tube videos may help you with real life situations on demonstrating or executing any skill in this course.

CLO2: Demonstrate knowledge of Early Childhood Programs

- **Describe Early Childhood Education Programs:** *Summary from "The Montessori Method" and "Democracy and Education" by Dewey:* Programs should be designed to meet developmental needs, incorporating self-directed learning, experiential activities, and community involvement.
- **Relate Early Childhood programs to teaching and learning.** *Summary from "The Montessori Method" and "Experience and Education" by Dewey:* Effective programs integrate hands-on, experiential learning with a focus on individual developmental stages and active participation.
- **Evaluate Early Childhood Education Programs.** *Summary from "Democracy and Education" by Dewey and "The Great Didactic" by Comenius:* Evaluation should consider the extent to which programs promote holistic development, practical skills, and moral education.

CLO3: Demonstrate Knowledge of the Young Child

- **Explain the characteristics of young children:** *Summary from "The Absorbent Mind" by Montessori:* Young children are highly observant and capable of absorbing vast amounts of information from their environment, emphasizing the need for a carefully prepared learning space.
- **Describe ways in which young children learn.** *Summary from "The Montessori Method" and "The Absorbent Mind" by Montessori:* Children learn best through hands-on, self-directed activities that engage their senses and curiosity.
- **Demonstrate qualities of teachers of young children.** *Summary from "The Montessori Method" and "Democracy and Education" by Dewey:* Effective teachers are facilitators who create supportive learning environments, encourage exploration, and model democratic principles.

CLO4: Demonstrate knowledge and skills of activities during transition

- **Explain the importance of transitional activities:** *Summary from "Experience and Education" by Dewey:* Transitional activities help children adapt to new environments and routines, promoting stability and continuity in their learning experiences.
- **Demonstrate the use of transitional activities in teaching:** *Summary from "Experience and Education" by Dewey:* Integrate activities that bridge different phases of learning, such as group discussions, reflective exercises, and hands-on projects.
- **Explain readiness activities:** *Summary from "The Montessori Method" by Montessori:* Readiness activities prepare children for more advanced learning by developing foundational skills through engaging and appropriate tasks.

CLO5: Demonstrate knowledge and skills in Language Skills:

- **Use listening skills:** *Summary from "The Montessori Method" by Montessori:* Develop listening skills through activities that require attentive listening, such as storytelling, music, and interactive conversations.

- **Demonstrate the correct use of speaking skills.** *Summary from "The Montessori Method" by Montessori:* Encourage correct speaking skills through guided practice, role-playing, and opportunities for verbal expression in a supportive environment.
- **Apply reading skills.** *Summary from "The Montessori Method" by Montessori and "Orbis Pictus" by Comenius:* Foster reading skills through engaging materials, visual aids, and activities that promote literacy development.
- **Implement writing skills.** *Summary from "The Montessori Method" by Montessori:* Support writing skills through activities that develop fine motor skills, such as drawing, tracing, and writing exercises. **Prescribed Textbooks:** Works by Froebel, Dewey, Montessori, and Comenius.

End of Year Examinations Internal Moderation Report-Quality Assurance Report. Unit Title: FOE 111-Educational Psychology (Theories of Child Development and Human Learning) prepared by: Dr. Moya Modise

Introduction. Background

The Department of Foundations of Education offers the following courses at Year 1: FOE 111 Theories of Child Development and Human Learning.

Preparation of Examinations and Quality Assurance Measures

- **Pre-delivery Meeting:** Lecturers teaching FOE 111 Theories of Child Development and Human Learning namely Dr. Moya Modise and Mr. Dibe held a pre-delivery meeting to standardize course delivery processes.
- **Teaching, Learning and Assessment Plan (TLAP):** Lecturers teaching *FOE 111 Theories of Child Development and Human Learning* jointly developed a Teaching, Learning and Assessment Plan (TLAP):

Examination Processes (*Implementation processes; quality assurance; exam integrity; inclusivity measures*).

Modes of Assessment: Quality Assurance Measures Implementation:

- **Continuous Assessment (CA):** The students were given three (3) pieces of work to contribute towards their Continuous Assessment (CA) records. They were given CA1 Group-written essay; CA2 Case study followed by questions; CA3 Group-written research report & PowerPoint presentation. The content for the CA work was drawn from the area of study for Year 1 course: FOE 111 Theories of Child Development and Human Learning.
- **Examinations:** The End of year Foundations of Education Year 1 written examination: FOE 111 Theories of Child Development and Human Learning was written on the 6th November 2024. There was one paper, which was written in the afternoon. **Paper** consisted of structured items, essay and case study. The total marks for the paper was 75.

Assessment Quality Assurance Processes (*Assurance of assessment standards / principles (e.g. validity, veracity, fairness, authenticity etc).*

Assessment Setting and Moderation:

Setting:

The following precautionary procedures were executed: (a) Set exam / test items using an office malware free computer (b) Shredding was done by members of the Foundation of Education Department as evidenced by 'shredding minutes' (c) Transfer exam / test materials using an office malware free hard drive (d) print and duplicate exam / test materials in a secure office printer preferably at the HOD's office (e) Cross-check the number of copies of printed exam / test materials during printing / duplication, after shredding and before packaging (f) Any unpacked exam / test materials must be appropriately stored under secure lock and key, or completely destroyed (using a shredding machine or fire) (g) Packaged test / exam materials must be appropriately labelled and stored under secure lock and key. In setting, each lecturer from the teaching team had come up with a set of three questions which were screened to the required number of test questions. After selection of the questions, each lecturer had the responsibility to prepare a marking key for his or her questions.

Examination Administration:

On the 6th November 2024, Year 1 course *FOE 111 Theories of Child Development and Human Learning* teaching team administered the examination to the year one students in Serowe Multipurpose Hall. The team monitored the candidates closely to prevent cheating or any form of dishonesty.

- **Marking:** To avoid biasness when marking, the test scripts were arranged in ascending order using students' ID. The scripts were shared and marked according to ranges. When marking, an assessment rubric was followed and the marking key was used. For quality assurance, after marking, the scripts were moderated.
- **Moderation:** The scripts were shared and marked according to ranges. When marking, an assessment rubric was followed and the marking key was used. For quality assurance, the scripts were moderated after marking.
- **Internal / external examiner nominations:** 31 scripts were made ready for internal / external examiner nominations. The results of the moderation are summarised later in this paper.

Handling / Management of Results (marks) (Security of results and process security):

- **Centres for management:** After analyzing and moderating exam /test results; the results were submitted to the Serowe College of Education – Examination and Assessment Office. Foundation of Education Department effectively adhered to Academic regulations; Academic honesty Policy; Examination Rules and procedures.
- **Systems used to manage results:** A laptop which was always secured was used to store the results before handing the results via the laptop to Serowe College of Education – Examination and Assessment Office.
- **Quality assurance processes employed:** Foundations of Education Department ensured that: not less than three members of the department moderated one another when engaging in the following processes: (a) Centres for management (b) Systems used to manage results: (c) Quality assurance processes employed.

Summary of Results

(Totals of results; provide summary table consistent with academic Regulations).

Analysis of Students' Performance:

The following analysis shows the performance of students in CA and the examination: The table and chart above shows that the students did well in Continuous Assessment as compared to the Examination. The overall performance shows the distribution of students as follows: 100 Distinction, 33 Merit, 1 Credit, 0 Pass, 0 Supplementary, and 0 FAIL. The issue of whether the distribution represents a normal curve or not is immaterial here because we expect all student to perform far above the average – Therefore, we expected an asymmetric distribution curve skewed to the right that depicts more deviations from the centreline / mean /average towards the right side. Reasons being that in Outcome Based Curriculum, (a) during formative assessment, performance of learners is continuously assessed and feedback is given to learners as compilation process of the portfolio advances. (b) Learners are expected to respond to feedback or appraisal from the assessor by means of reflection reports. However, we do not rule out that there is a possibility of having those students getting below 'set standard' during written examinations or practical skill execution examination in Outcome Based Curriculum but the expectation in 'OBE Standard Based Assessment' is that each student should rehearse a particular skill until they meet a set standard.

Moderation of Scripts:

After marking of the scripts the Department got into the internal moderation exercise. The purpose of the internal moderation process was to ensure quality assurance in the overall performance outcomes. Assessment was done by Dr. Modise and Mr. Dibe. The moderation was done by Lecturer and Lecturer..... The moderation was done on the scripts selected on the following criteria; the distinctions, scripts on border lines, passes and supplementary. A total of 31 scripts were selected for moderation.

General Observations; Comments of General Performance; Justification of Specific Trends; Measurers Taken to Address or Enhance Performance / Identified Conditions:

(a) The moderated papers showed that in some scripts the original marks were maintained, in some the marks were raised while in few instances the marks were lowered in case of Paper. (b) It was also observed that the differences in the marks were insignificant. This meant that the First markers did a good job because there was not much difference with the moderators' marks. (d) The questions were clear and fairly spread across the Syllabus. They covered all domains of Bloom' taxonomy. However, the lower order in Bloom Taxonomy being Knowledge (K) and Comprehension (c) were subsumed under the high order questions in Bloom Taxonomy being Application-Analysis-'Synthesis/Create'-Evaluation. Reasons for following the preceding route is as follows: Performance Based Assessments; Examinations; Item Writing in Outcome-Based Curriculum should take the following path:

1. Should address **Levels of Rigor** in Education at Diploma NCQF Level 5 as follows: **Level of Rigor** at 'Diploma NCQF Level 5 is 'In-depth knowledge and practical application'. **Performance Expectations** of Diploma NCQF Level 5 are: **Knowledge:** In-depth understanding of subject matter. **Skills:** Advanced practical abilities.
2. Should present Demonstration of Knowledge, Skill, and Competence at Bloom's Taxonomy Levels 3 4 5 6 (NB: Normal Curve distribution curve has no role here. Rather, an asymmetric / abnormal distribution curve skewed to the right with more deviations to the right is relevant here).
3. Performance Expectations at each NCQF Level often align with Bloom's Taxonomy cognitive learning objectives.

4. The Foundations of Education Department examination were written on time, this allowed the lecturers' time to mark and moderate the scripts.

Challenges and Mitigations:

It seems we did not encounter challenges.

Conclusion

Generally, the students did well. The moderation exercise played a crucial role in quality assurance.

THEORETICAL BACKGROUND

Functionalism Theory (Functionalism vs. Dysfunction)

Functionalism theory holds that society keeps that which helps a society to function and discard that which acts as a dysfunction to the progress of that society.

Pragmatism Philosophy: The researcher asserts a pragmatic approach to solve re-curing questions in Outcome Based Curriculum by asserting the following:

- **Principle of Outcome Based curriculum:** Teacher-Centered Methods-Performance-Based Portfolio: The teacher demonstrates a skill, and students practice until they are competent. This method aligns with Behavioral Learning Theory (Pavlov's Classical Conditioning) and Social Learning Theory—learning by observation (Bandura). Learner-Centered Methods-Performance-Based Portfolio: The teacher arranges the environment for students to develop, synthesize, formulate, analyze, critique, distinguish, and innovate. Methods include research, experimentation, individual study, discovery learning, debate, and case study.
- **Principle of Outcome Based curriculum:** Hybridize [Portfolios:-execute enabling outcomes-performance criteria outcomes-learning outcomes-culminating outcomes (apply-analyze-synthesize-create-evaluate-solve) in real life and hypothetical situations] + [End of Semester written and or practical examinations where learners apply-analyze-synthesize-create-evaluate-solve in real life and hypothetical situations under a specific allocated time enhance learners' ability to execute skills efficiently and effectively in given specific times.
- **Principle of Outcome Based curriculum:** (i) Stop a misconception that OBE eliminates grades. Wikipedia. 'Outcome based Education.' http://en.wikipedia.org/wiki/Outcome-based_education. The outcomes concept does not promote a specific method; it is about ensuring students master necessary skills (the outcomes) decided by the community.

Literature Review

The following existing research and literature did not: Find out whether Performance Based Assessments and Portfolios-Principles and Processes of Outcome Based Curriculum are applied in Botswana. Find out whether different approaches to assessing an Outcome Based Curriculum (OBE) are applied in Botswana. Evaluate whether quality assurance standards that different Performance Based Assessments and Portfolios should meet are applied in Botswana. Determine the necessity of retaining or discarding the different approaches to assessing an Outcome Based Curriculum (OBE) in Botswana school curriculum:

- Outcome Based Curriculum 1930s study involving 300 colleges and 30 high schools in the United State of America reported by Benjamin Bloom, (1968) highlights that Outcome Based Education (OBE) takes a shape of a 'teaching method focused on mastering small units'.
- Human Resource Development Council Review (2024) highlights a skills mismatch in Botswana's labor market.
- Diploma in Primary Education Programme Development workshop held at Serowe College of Education from 26th February to 1st March 2024.
- Assessment Design Workshop. Diploma in Secondary Education & Diploma in Primary Education. 24th June -02nd August 2024. Serowe College of Education.
- Consultative meeting on Quality Assurance Standard 3- Criteria and Guidelines for Accreditation of Doctoral Learning Programme hosted by the Botswana Qualification Authority on 26th March 2024.
- Directors Board (Teacher Training and Technical Education) on 15th August 2024. Outcome Based Education Regulations. Academic Regulations for University of Botswana affiliated Colleges of Education Diploma Programme.

RESULTS & DISCUSSION

This section interprets the results, discussing their implications, limitations, and how they fit into the broader field including in the context of research questions and objectives.

Find out whether Performance Based Assessments and Portfolios-Principles and Processes of Outcome Based Curriculum are applied in Botswana.

Find out whether different approaches to assessing an Outcome Based Curriculum (OBE) are applied in Botswana.

Evaluate whether quality assurance standards that different Performance Based Assessments and Portfolios should meet are applied in Botswana.

Determine the necessity of retaining or discarding the different approaches to assessing an Outcome Based Curriculum (OBE) in Botswana school curriculum.

Principal Argument / Thesis / Findings

The study hypothesized that: Principles and Processes of Outcome Based Curriculum; different approaches to assessing OBE; Quality assurance standards of OBE are applied in Performance Based Assessments and Portfolios in Botswana.

Validation of Principal Argument: The necessity of retaining or maintain the different approaches to assessing an Outcome Based Curriculum (OBE) in Botswana school curriculum rests on the perfect harmony between (i) Principles and Processes of Outcome Based Curriculum discussed in this paper (ii) Serowe College of Education Course: FOE 111 Educational Psychology (Theories of Child Development and Human Learning) & Course: FOE 122 Early Childhood (iii) Wikipedia: There is a misconception that OBE eliminates grades. Wikipedia. 'Outcome based Education.' <http://en.wikipedia.org/wiki/Outcome-based>

education. The outcomes concept does not promote a specific method; it is about ensuring students master necessary skills (the outcomes) decided by the community.

CONCLUSION

This section summarizes the key research findings and their significance and suggests future research directions, potential directions for future use.

Different approaches to assessing an Outcome Based Curriculum (OBE) in Botswana school curriculum are equally in agreement with Principles of assessing and moderating Outcome Based Curriculum.

There is need to retain or maintain the different approaches to assessing an Outcome Based Curriculum (OBE) in Botswana school curriculum.

Quality assurance standards that different Performance Based Assessments and Portfolios should meet are applied in Botswana.

Quality assurance standards that different Performance Based Assessments and Portfolios should meet, applied in Botswana, are in agreement with Principles of assessing and moderating Outcome Based Curriculum.

Pragmatism Philosophy: This study asserts a pragmatic approach to solve re-curing issues in Outcome Based Curriculum by asserting the following:

- **Principle of Outcome Based Curriculum:** Teacher-Centered Methods-Performance-Based Portfolio: The teacher demonstrates a skill, and students practice until they are competent. This method aligns with Behavioral Learning Theory (Pavlov's Classical Conditioning) and Social Learning Theory-learning by observation (Bandura). Learner-Centered Methods-Performance-Based Portfolio: The teacher arranges the environment for students to develop, synthesize, formulate, analyze, critique, distinguish, and innovate. Methods include research, experimentation, individual study, discovery learning, debate, and case study.
- **Principle of Outcome Based Curriculum:** Hybridize [Portfolios:-execute enabling outcomes-performance criteria outcomes-learning outcomes-culminating outcomes (apply-analyze-synthesize-create-evaluate-solve) in real life and hypothetical situations] + [End of Semester written and or practical examinations where learners apply-analyze-synthesize-create-evaluate-solve in real life and hypothetical situations under a specific allocated time enhance learners' ability to execute skills efficiently and effectively in given specific times.
- **Principle of Outcome Based Curriculum:** (i) Stop a misconception that OBE eliminates grades. Wikipedia. 'Outcome based Education.' http://en.wikipedia.org/wiki/Outcome-based_education. The outcomes concept does not promote a specific method; it is about ensuring students master necessary skills (the outcomes) decided by the community.

Policy Recommendations

Evidence-Based Practice & Evidence-Based Policy:

- Involve local scholars and community leaders in policy-making processes.

- Work with Botswana Outcome Based Curriculum experts and policymakers to draft and implement the necessary reforms, ensuring that they are in line with Principles and Processes of Outcome Based Curriculum; different approaches to assessing OBE; Quality assurance standards of OBE in Performance Based Assessments and Portfolios.
- Policy makers to preserve relevant Principles of Outcome Based Curriculum: (i) Stop a misconception that OBE eliminates grades. Wikipedia. 'Outcome based Education.' http://en.wikipedia.org/wiki/Outcome-based_education. The outcomes concept does not promote a specific method; it is about ensuring students master necessary skills (the outcomes) decided by the community (ii) Teacher-Centered Methods-Performance-Based Portfolio: The teacher demonstrates a skill, and students practice until they are competent. This method aligns with Behavioral Learning Theory (Pavlov's Classical Conditioning) and Social Learning Theory—learning by observation (Bandura). Learner-Centered Methods-Performance-Based Portfolio: The teacher arranges the environment for students to develop, synthesize, formulate, analyze, critique, distinguish, and innovate. Methods include research, experimentation, individual study, discovery learning, debate, and case study.

Potential Direction for Future Research

Theoretical Research:

- Conduct research based on theories derived from the current study.
- Conduct research on the impact of Principles and Processes of Outcome Based Curriculum; different approaches to assessing OBE; Quality assurance standards of OBE on Performance Based Assessments and Portfolios in Botswana

Replication Studies:

Replicate the current research using different methods and procedures to validate the findings.

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