Reflection Report

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1. CBC, CBE, and CBA as a System

A Competency-Based Curriculum (CBC) is a literacy-focused educational program. In other words, this curriculum is designed not around how much knowledge a learner has, but how well they can apply that knowledge in real-life situations. CBC emphasizes clear and inclusive goals, aligning with SMART objectives. A competency-based curriculum aims to develop and assess a learner's talents, abilities, flexibility, attention, logic, and creativity. Traditional education often focuses on memorizing definitions, rules, and formulas, and passing written tests. In contrast, the Competency-Based Curriculum (CBC) prepares learners for real life by helping them develop practical skills and apply knowledge meaningfully. Learners progress at their own pace and are assessed not just on what they know but on what they can do. The CBC includes specific learning goals, clear objectives, and interdisciplinary projects. Since it's a curriculum with defined goals, active teaching methods must be planned to achieve those goals — this is known as Competency-Based Education (CBE). The planned methods should not only increase student engagement but also spark interest in completing tasks based on the provided information. Moreover, learners should be guided toward independent learning and inquiry using the knowledge they've gained. The focus should be not just on what the student understands or knows, but on creating a zone of development where they can use what they've understood. In implementing Competency-Based Education (CBE), teachers should consider effective instructional technologies when planning the learning process. I recommend that teachers align tasks with SMART goals while also considering the VARK learning styles

(Visual, Auditory, Read/Write, Kinesthetic). To develop specific skills in students, it's important to take into account how they process information. For example, in my subject of mathematics, I often use STEAM and Problem-Based Learning (PBL) to help foster all four learning styles. Rather than relying solely on written tests, student interest increases when they complete projects, hands-on or lab-based tasks (also called "real-life math"), and presentations. Students are given the time and support they need to succeed. These methods provide meaningful ways to apply knowledge and demonstrate real-world competencies. In Competency-Based Education (CBE), learners understand the purpose behind assignments and how they relate to their future. They get used to learning independently, which boosts engagement and fosters a sense of ownership and responsibility. That means the learner sets a goal and works toward results. They become skilled at self-assessment. Important principles in CBE include: 1. **Fairness** – Providing equal opportunities for all learners; 2. **Skill prioritization** – Focusing on practical skills needed in real life; 3. **Transparency of goals and assessments** – Clear and understandable learning process and outcomes; 4. **Personalized support** – Offering help tailored to individual learner needs; 5. **No progress without mastery** – Moving to new content only after mastering the previous one; 6. **Flexible learning pace** – Allowing learners to progress at their own speed. These principles help shape confident, independent, responsible, and life-ready individuals. Every task should be assessed after completion. Competency-Based Assessment (CBA) evaluates not just what a student has learned, but what practical skills they have developed. This means students are not limited to tests but can show their skills through real-world tasks such as: - Project work - Scientific research - Presentations - Creative assignments, etc. Competency-Based Assessment (CBA) can be conducted in the following ways: - Determining the learner’s mastery of specific content within a subject; - Evaluating learners based on their knowledge and literacy level. If assessment is done through testing, it's important to consider the distinctions between norm-referenced tests and criterion-referenced tests. Open-ended test formats are more suitable for assessing concrete knowledge and skills, as they provide more accurate results. ### The Relationship between CBC, CBE, and CBA: These three directions are viewed as a unified system: - **CBC** – defines what should be learned; - **CBE** – explains how it should be learned; - **CBA** – shows how to assess what has been learned.

2. Curriculum Development and Learning Goals

Learning objectives should be specific, measurable, achievable, and action-oriented. They are often developed using the SMART principle (Specific, Measurable, Achievable, Relevant, Time-bound). Depending on the type of lesson (new lesson, revision, reinforcement, open lesson, educational, research-based, etc.), they are categorized by cognitive levels according to Bloom's Taxonomy (Remembering, Understanding, Applying, Analyzing, Evaluating,

Creating). Bloom’s Taxonomy provides a useful structure for planning learning objectives at different levels of complexity based on the knowledge and skills students are expected to acquire and demonstrate. Each level of the taxonomy represents a distinct type of thinking skill — from recalling simple facts to more complex tasks such as evaluating and creating new ideas. Example: Topic: Odd and Even Numbers Traditional Learning Objective: To develop understanding of odd and even numbers and be able to distinguish between them. SMART Objective: • Understands the concept of even and odd numbers. Knows the definition and can distinguish between them. • Can perform operations with even and odd numbers and provide examples. Skills identified in this objective:earning activities should align with the objectives — students should be able to achieve the objectives through completing specific activities. Activities may be practical, meaningful, motivating, and interdisciplinary. One effective way to make learning objectives clear is by asking students concrete, direct questions that show them what they need to learn. For example, instead of asking "What are odd numbers?", ask: "Why are the numbers 11, 15, 17, 23 considered odd?" This type of question encourages independent thinking. Students begin researching and analyzing why those numbers are categorized as odd. This question corresponds to the "remembering and understanding" level in Bloom’s Taxonomy. Question 2. Which of the following definitions correctly describes even numbers? A. All numbers with more than two divisors are even numbers B. All numbers that are not divisible by 2 are even numbers C. All numbers ending with the digit 2 are even numbers D. All numbers ending with even digits are even numbers E. All whole numbers are even numbers This question belongs to the "analyzing" level of Bloom’s Taxonomy

3. Assessment Quality: Validity, Reliability, and Fairness

Assessment is one of the most important and responsible parts of the learning process. In my practice, I follow the principles of transparency, fairness, accuracy, and alignment with learning objectives when organizing the assessment process. A test should clearly reflect how well it aligns with a specific objective. To determine the validity of a test or assessment tool, the questions or task criteria must be constructed in a way that accurately measures what is intended to be assessed. If a test only measures one part of an objective or is not designed according to the intended goal, it can be considered invalid. For example, a math test that evaluates memorization of formulas instead of problem-solving skills is invalid. Types of Validity: Content Validity Does the content of the test align with the curriculum and subject standards? → For example, test questions should be directly related to the learning objectives. Construct Validity What specific skill or understanding is the task measuring? → For instance, if the test claims to assess critical thinking but only asks for fact recall, it lacks construct validity. Criterion-related Validity Do the test results correlate with other reliable measures? → For example, if a student's national exam (like the UNT) scores logically align with their annual

school grades — this indicates validity. Examples of Invalid Tests: Tasks not aligned with learning objectives: e.g., asking historical dates in a physics test. Poorly formulated questions: unclear or ambiguous questions. Difficulty level too high or too low: fails to accurately reflect the abilities of average students. Cultural or language barriers: students might misunderstand the question and respond incorrectly.

4. Grading and Standard Setting

In my own teaching practice, I set specific criteria for each stage of the lesson. In other words, I create a descriptor for the entire lesson. Naturally, the tasks and methods organized at each stage should be aligned with the lesson's objective and aimed at developing particular skills or addressing parts of the learning goal. The tasks and criteria must be designed to identify the skills relevant to those objectives. During the lesson, I use short tasks, question-and-answer sessions, and feedback to monitor student progress and conduct formative assessment. If every evaluator or observer could develop assessment criteria and a scoring scale similar to those used in figure skating, it would result in a more accurate, honest, and transparent method of evaluation. That means assessing students by taking into account all the possible skills and performance indicators they may demonstrate throughout the learning process.

5. Use of Rubrics

How do I use rubrics? Rubrics are a structured, clear, and fair method of assessment. In my practice, I use rubrics for the following purposes: Clarifying assessment criteria – students know in advance what they are being assessed on and at what level. Providing feedback – it becomes easier to give specific responses such as "what is done well" and "what can be improved." Self- and peer-assessment – rubrics give students clear guidance when assessing themselves or each other. Regulating the learning process – while completing a task, students can compare their work with the rubric and make improvements accordingly.

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