Reflection Report

Submitted by: ANARGUL ABDRAKHMANOVA

Full Name:	ANARGUL ABDRAKHMANOVA
External ID:	0725CbAT69
Gender:	Female
Age:	50
Submitted At:	2025-04-18 15:45

1. CBC, CBE, and CBA as a System

1. Understanding and Applying the CBC / CBE / CBA System. CBC (Curriculum Based on Competencies), CBE (Competency-Based Education), and CBA (Competency-Based Assessment) are three interrelated components that form a unified system of competency-oriented education. CBC defines clear learning objectives that focus on real-life skills necessary for students' academic, personal, and professional success. CBE delivers instruction through active learning methods, flexible pacing, and practice-oriented tasks. CBA emphasizes assessing what learners can actually do with their knowledge, rather than what they can simply recall. Example from practice: During a professional development course for mathematics teachers, I conducted a module where participants were asked to: • choose one key competency (e.g., problem-solving), • formulate a SMART-aligned learning objective, • design a relevant learning activity and develop a rubric for assessment. One participant created a lesson on "Proportions in Real-Life Problems," including a mini-project comparing prices in different stores and preparing a shopping plan. The learning objective was clearly defined, the activity was practical, and the assessment relied on transparent criteria. The success of this lesson lay in the alignment of its three components: learning goal – activity – assessment. However, not all participants were able to immediately formulate observable behaviors. We had to revisit Bloom's Taxonomy and the principle of constructive alignment. I also realized that effective integration of CBC/CBE/CBA requires coordinated effort across the entire teaching team. Teachers often focus on a single aspect – typically assessment – without

aligning it to learning activities and goals. It is essential to build a shared understanding of these connections. In the course, I introduced the backward design model: first, define expected outcomes, then design assessment tools, and finally, plan learning activities. This approach received very positive feedback from the participants.

2. Curriculum Development and Learning Goals

2. Designing a Competency-Based Curriculum and Formulating Learning Objectives In the context of a Competency-Based Curriculum (CBC), developing a program requires clear, measurable, and achievable learning objectives aligned with key competencies. These objectives should describe observable learner behavior, follow the SMART format, and be logically aligned with both learning activities and assessment tools. The core principle here is constructive alignment: learning outcomes – instructional activities – assessment. Example from practice: During a training session for middle school mathematics teachers, we explored the topic of "Solving Percentage Problems" in Grade 6. One teacher presented a mini-project lesson where students calculated the cost of purchases with discounts and VAT, compared prices between two stores, and justified their choice. The learning objective was: "Students will be able to solve real-life percentage problems by applying formulas for calculating discounts and taxes and justify their decisions based on calculations." The instructional activities included: • working in pairs to analyze price tags and model scenarios, • performing individual calculations, • providing oral justification, • and using a checklist for self-assessment. What worked well: • The goal was practical and observable; • The task was engaging and encouraged reflection; • Students saw the real-life relevance of mathematics. What needed improvement: There was no clear rubric for assessing the quality of justification. Later, we co-developed a three-level rubric (basic – proficient – advanced) based on: • accuracy of calculations, • logic of the argument, • clarity of presentation. This increased transparency and helped students understand how to improve. I also realized that learning goals should be understandable to students. If a student cannot explain in simple terms what they are learning and why, the goal needs revision. I began translating objectives into student-friendly language and posting them on the board or in worksheets. This practice improved task awareness and motivation. When designing instruction, I now also prioritize student diversity through task choice, differentiation, and visual supports.

3. Assessment Quality: Validity, Reliability, and Fairness

3. Quality of Assessment: Validity, Reliability, and Fairness Validity, reliability, and fairness are three essential criteria for high-quality assessment in a competency-based system. • Validity

means the assessment measures exactly what it is intended to measure. • Reliability is the consistency of results, regardless of who performs the assessment. • Fairness ensures equal conditions and considers the diversity of learners. Example from practice: In a Grade 5 mathematics lesson on "Circle and Circumference", students were given both standard exercises and a real-world problem: "How many meters of ribbon are needed to wrap around a flower bed with a diameter of 1.2 meters?" This task was context-based and demonstrated authentic validity, as it required applying the circumference formula in a meaningful situation. However, challenges emerged during grading: • One teacher accepted the correct numerical answer without explanation. • Another deducted points for missing justification. This inconsistency affected the reliability of assessment. Solution: We agreed to use a rubric with defined levels: • 3 points – accurate calculation and explanation; • 2 points – correct answer without justification; • 1 point – partially correct; • 0 points – incorrect or missing answer. What improved: • Students better understood their results and how to improve; • Feedback became clearer and more actionable; • I began using pre-assessment calibration with colleagues to discuss sample responses and ensure consistency. Additionally, I now pay closer attention to task wording, making sure that tasks truly assess the intended competency, not just rote procedures. Valid assessment, I've learned, must reflect both the objective and the real application of knowledge.

4. Grading and Standard Setting

4. Grading and Setting Standards In traditional systems, assessment often reflects how well a student meets a teacher's expectations, rather than the achievement of clearly defined learning outcomes. In a competency-based approach (CBA), the focus shifts to measuring actual mastery, with grading that is transparent, fair, and aligned with intended outcomes. Example from practice: In a Grade 6 math lesson on "Calculating the Mean", students analyzed weekly temperature data and were asked to answer: "Which week was warmer and why?" The task included: • data collection and processing, • performing calculations, • interpreting results and drawing conclusions. Assessment method: • Each of the three criteria was scored from 0 to 2 points; • Maximum score: 6 points; • The minimum threshold for demonstrating competency was set at 4 points. What worked well: • The assessment was aligned with learning objectives; • Criteria were shared with students in advance, enabling self-assessment; • Each student received individual feedback based on the rubric. What needed improvement: Initially, performance levels were defined arbitrarily. Later, I introduced descriptive proficiency levels (emerging – basic – proficient – advanced) tied to observable student behavior. This helped both teachers and students understand what was expected at each stage of mastery. Additionally, I started using a tool called a "reflection compass"—a simplified student-friendly rubric where learners rate what they did well and what they still need to improve. This

promotes metacognition and enhances motivation by helping students take ownership of their learning process.

5. Use of Rubrics

5. Professional Use of Rubrics Rubrics are among the most powerful tools in competency-based assessment. They help structure expectations, make evaluation criteria clear and accessible to students, and ensure objectivity and consistency for the teacher. A well-designed rubric also supports formative assessment, fosters motivation, and promotes self-reflection. Example from practice: During a seminar with mathematics teachers of Grades 5–6, we developed a rubric for a project called "Budget Planning for a School Fair." Students worked in groups to calculate income and expenses, create tables, and justify their financial decisions. We created a four-level rubric (from emerging to advanced) with three criteria: • Accuracy of calculations, • Format and organization of presentation, • Logic and clarity of justification. Impact of implementation: • Students clearly understood what was expected before the task began; • The assessment became more transparent and fair; • Teachers noted a reduction in grading-related disputes. Key principles in rubric design: • Use specific and observable language; • Build levels progressively; • Align the rubric with learning objectives and task type; • Pilot and revise the rubric based on practical use. Now I regularly use rubrics for: • Summative tasks, • Oral answers, • Group work (including peer assessment). Rubrics have become a tool for developing students' thinking and metacognitive skills. We often reflect together on what differentiates a "2-point" response from a "3-point" one. These conversations help students better understand quality criteria, evaluate their own work, and make meaningful improvements.

Digital Signature (CMS):

```
MIINKgYJKoZIhvcNAQcCoIINGzCCDRcCAQExDjAMBggqgw4DCgEDAwUAMAsGCSqGSIb3DQEHAaCCBEMwggQ/MIID
```