Reflection Report

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1. CBC, CBE, and CBA as a System

During the professional development course, I developed a deeper understanding of how Competency-Based Curriculum (CBC), Competency-Based Education (CBE), and Competency-Based Assessment (CBA) are interconnected and work together to enhance learning. These three elements collectively place the learner at the center of the educational process by going beyond the simple acquisition of knowledge to emphasize its practical application in real-life contexts. CBC provides a structured framework that defines the learning content, expected outcomes, and competencies to be developed. CBE involves the use of learner-centered teaching strategies and methods that help students attain these competencies. CBA, meanwhile, focuses on evaluating students through authentic, real-world tasks that assess not only what they know but also how effectively they can use that knowledge and apply key skills. These three components are interdependent and together form a cohesive system aimed at developing learners' competencies in a meaningful way. This integrated approach is especially powerful in subjects like geography, where students are expected to acquire a range of practical skills such as research, critical thinking, environmental analysis, and interpretation of maps and infographics. For instance, during the course, we carried out a project titled "Fundamentals of Geo-ecological Research." In this project, learners identified local causes of natural resource pollution, examined their effects on ecosystems, and proposed realistic solutions. The activity followed clearly defined learning objectives derived from CBC, applied learner-centered and inquiry-based teaching methods as promoted in CBE,

and evaluated student work using detailed criteria in line with CBA. This experience reinforced the idea that CBC, CBE, and CBA are not stand-alone concepts but rather interconnected systems that support each other. When implemented together, they create a unified and effective educational model that ensures learners not only gain academic knowledge but also develop the capacity to apply it in solving real-world problems—ultimately supporting holistic learner development.

2. Curriculum Development and Learning Goals

The Competency-Based Curriculum (CBC) aims to equip learners with essential life skills by emphasizing not only knowledge acquisition but also its practical application. During a professional development course, I gained a deeper understanding of how to set effective learning objectives using the SMART principles—Specific, Measurable, Achievable, Relevant, and Time-bound. I also explored Bloom's Taxonomy, which helped clarify the different levels of cognitive learning: knowledge, understanding, application, analysis, evaluation, and creation. To apply these principles, I implemented a project-based geography lesson titled "My Virtual Tourist Route." Students were tasked with designing a 5-day tourist route to a country of their choice, using climatic data and cartographic information. They explored the country's natural features, climate patterns, and transport infrastructure, and then created visual routes using Google Maps. Their final output was presented through infographics and oral presentations. Each classroom activity was aligned with specific learning objectives and mapped to levels of Bloom's Taxonomy. Assessment criteria were derived from these objectives, and students followed clear task descriptors to guide them through each phase of the project. This approach promoted critical thinking, research, planning, and decision-making—all essential competencies in the CBC framework. Through this assignment, I applied the skills gained from my professional development course to evaluate student performance more effectively. It reinforced the idea that quality education should extend beyond content delivery and focus on real-life application of knowledge. Such learning experiences build functional literacy and prepare students for lifelong learning. Integrating SMART goals, Bloom's Taxonomy, and CBC principles helped create structured, meaningful, and assessable lessons. These tools also provided a framework for breaking down broad curriculum goals into focused lesson outcomes. This experience confirmed for me that intentional planning grounded in strong pedagogical principles enhances both teaching effectiveness and student learning outcomes.

3. Assessment Quality: Validity, Reliability, and Fairness

Assessment in a competency-based education system is an integral part of teaching. Through a professional development course, I developed a clear understanding of three key components ensuring assessment quality: validity, reliability, and fairness. While teaching "Global Environmental Issues," I created a thematic test with both closed and open-ended questions to assess not only theoretical knowledge but also learners' skills in analysis and interpretation. For instance, the open question "How might global warming affect the climate of Kazakhstan?" encouraged critical thinking. The questions were aligned with learning objectives and targeted various cognitive levels of Bloom's taxonomy—knowledge, understanding, application, and analysis—to reveal learners' subject competencies. However, one open-ended question lacked clarity—it didn't specify whether examples should be global or local, reducing its validity. After identifying this issue, I revised the question to better align with the objective. Two colleagues reviewed the test. While closed-question results were consistent, open questions showed grading discrepancies due to the absence of a clear rubric, affecting reliability. To address this, we conducted calibration sessions and introduced a scaled scoring system (0–3 points) for open responses, which improved consistency. Despite all students receiving the same tasks, fairness was ensured by accommodating individual learning needs—such as allowing extra time for slower readers or writers. This experience highlighted the importance of not just content but also question structure, linguistic clarity, and assessment consistency. I learned that validity must be considered not only in content alignment but also in relation to learner perception. A valid assessment reflects the learning objective accurately. A reliable one yields consistent results under similar conditions. Fairness involves equal opportunity while recognizing individual differences. By applying these principles, I enhanced assessment quality and enabled students to evaluate their academic progress more accurately and fairly.

4. Grading and Standard Setting

The quality of tests and tasks is essential in a competence-based approach, as they not only assess knowledge but also help determine the level of formation of students' key competencies. While teaching "Global Environmental Problems" in geography, I used a mixed assessment format that included thematic tests with dichotomous (true/false) and polytomous (multiple correct answers) questions. The reasons for global warming were clearly linked to learning objectives and established competencies such as analysis, interpretation, and argumentation. This ensured the validity of the assessment, as tasks matched the targeted competencies. Diagnostic questions were used to assess basic knowledge. For example: "The greenhouse effect is due to the increase in carbon dioxide in the atmosphere. True/False." Polytomous questions assessed analytical skills, e.g., "Select the phenomena that are consequences of global warming." (several correct answers) This approach allowed for

differentiated task complexity and addressed multiple cognitive levels. Before the main test, I conducted a pre-test with a small group. This helped identify difficult concepts (such as those related to the atmosphere), and feedback was used to refine the questions, increasing test reliability. Open-ended questions were evaluated on a 0–3 point scale, which reduced subjectivity and ensured consistency across evaluators. The test design was clear and logical, using consistent numbering, symbols, tables, graphics, font, and layout—important for students with visual perception challenges and to minimize technical errors. Improvements included: Introducing task complexity indicators (low/moderate/high) in the assessment matrix Expanding open-ended tasks (e.g., short essays, map-based analysis) Enhancing visual aids (charts, diagrams) especially for polytomous questions Providing feedback after each task block to track student progress This course taught me how to develop high-quality, competency-based tasks. I learned to structure linguistically rich and logically sound questions in diverse formats, enabling me to assess understanding of global environmental issues and support students' awareness of their own learning.

5. Use of Rubrics

Using a rubric is a highly effective way to improve the quality of assessment in education. In a recent training course, I explored how rubrics serve as professional, transparent, and systematic tools that support clarity and reliability in evaluation. A rubric outlines expectations clearly for both teachers and students, helping ensure assessments are objective and fair. It also provides students with a structured guide, so they know exactly how their work will be judged and how to make meaningful improvements. When I applied a competency-based approach in my teaching, I found the rubric to be an essential instrument for promoting transparency, fairness, and ongoing learning. Rather than simply being a scoring chart, a rubric functions as a framework that helps students understand performance standards and aim for higher outcomes. One example of this was during a group project focused on "Global Environmental Problems." I asked students to design infographics, and used a rubric with four key criteria: scientific accuracy, visual design, group cooperation, and presentation skills. Each of these criteria had detailed descriptors and performance levels, ranging from "beginning" to "high level." Before the students began the task, I introduced the rubric and explained it thoroughly. This helped them plan and manage their work effectively, aligning it with the assessment expectations. After completing the task, I used the rubric to give detailed feedback, showing each student their strengths and areas for growth. For instance, I encouraged students to include links to scientific sources to achieve higher-level results. This process supported both motivation and the development of self-assessment skills. I now see the rubric not only as a tool for evaluation but also as a means of meaningful communication in the learning process. I intend to use rubrics consistently for design, research, and presentation

tasks in my geography lessons to support student progress.

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