

Competency-Based Learning and Remediation Practices in Schools: Basis for Developing Remediation Framework

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Abstract

This study investigated the implementation of Competency-Based Learning and remediation practices in Junior High School Biology in three public secondary schools in Misamis Oriental, Philippines. While CBL emphasizes mastery of the learning outcomes, many learners still struggle to attain complex competencies. The inconsistent implementation of remediation efforts further intensifies this challenge. Using a qualitative-exploratory design, ten purposively selected biology teachers with at least ten years of teaching experience were interviewed. They also provided written responses, which were analyzed thematically using Braun and Clarke's framework. Findings indicated that teachers adopted active and student-centered approaches, including real-world applications, case-based learning, simulations, and technology integration. However, the instructional and remediation effectiveness was constrained by time limit, large class sizes, and limited learning resources. Similarly, assessment approaches adopted formative and summative approaches but lacked depth consistently for the same reasons described above. Various informal remediation strategies were tried, including peer tutoring, simplified instruction, visual aids, and contextualization. The paper recommends the development of a Competency-Based Remediation Framework to institutionalize structured diagnostic assessments, differentiated learning materials, profiling, and progress monitoring, ensuring more consistent, equitable, and effective remediation practices across schools.

Keywords: Competency-Based Learning, Remediation, Differentiated Instruction, Diagnostic Assessment

1. Introduction

The Philippines implements Competency-Based Learning (CBL) through the curriculum reforms established by the Enhanced Basic Education Act of 2013 (RA 10533), which requires schools to use standards-based education systems that deliver competency-based learning instead of time-based progression methods. The K-12 system implemented this requirement through its establishment of specific learning competencies and content

standards and performance standards that apply to all grade levels (DepEd Order No. 31, s. 2012). The assessment policies for classrooms were adapted to support this new direction. Assessment methods established by DepEd Order No. 8, s. 2015 function as tools to assess learner readiness, to track their progress, and to confirm their achievement of required competencies. The Department of Education Department Order No. 13 s. 2018 mandated schools to implement remedial and intervention programs, which educational institutions must execute to assist students who fail to achieve required proficiency standards. The MATATAG Curriculum maintains this policy path by developing essential foundational skills and delivering targeted support to learners.

Competency-Based Learning, or CBL, has emerged as an instructional approach that focuses on learning and demonstrating mastery through specific competencies, skills, or knowledge before advancing to subsequent levels. CBL emphasizes that one must demonstrate mastery of each skill or competency as evidence of learning (Gervais, 2016). This model ensures that progress is made only after attaining proficiency in specific competencies, thereby facilitating deep and personal learning experiences (Schumacher & Risco, 2016). Essentially, CBL, as currently adopted, addresses the limitations of conventional educational systems, which heavily rely on time, rigid training structures, and rote memorization factors that may hinder the acquisition of relevant skills and knowledge in a meaningful and effective manner (Desai et al., 2016).

The key element of CBL is to ensure that learners have mastered the necessary competencies. Remediation provides struggling learners with targeted interventions (Rincón-Flores et al., 2024). It involves the use of slower-paced classes, additional time or sessions for learning, or the application of different teaching methods. All these approaches facilitate the process of acquiring understanding and being able to do things independently. Furthermore, it is essential to provide support that aligns with the individual's pace, interests, and learning style (Tomlinson et al., 2003). Early identification of knowledge deficiencies and the implementation of effective remediation practices yield significant educational results (Lagman & Mansul, 2017). In this respect, remedial education assumes a more crucial role, not merely as a form of academic support but as an indispensable and vital aspect of a flexible and comprehensive education system.

Despite its importance, schools continue to encounter challenges in implementing remediation effectively. The challenges are inconsistent practices, limited resources, time constraints, heavy teaching workloads, and a lack of personalized approaches that would allow CBL to be enacted as stated in theory. Such factors create a gap between the principles of CBL and remediation, ultimately affecting learners' performance. The inconsistency and lack of a systematic approach to remediation practices remain one of the primary issues that schools must address (Dagnone et al., 2019). The proper use of competency-based learning requires upfront, structured systems; thus, schools must have unambiguous and research-based frameworks for remediation to be effective. The frameworks that are developed must help educators identify learners who require remediation, employ the right interventions for them, and conduct accurate assessments of learning progress. Well-planned remediation programs are crucial for achieving sustainability, enhancing productivity, and improving learning outcomes. Through evidence-based frameworks that incorporate remediation practices, schools will be able to not only cope better with the diversity of learners but also respond to individual needs, thereby improving the quality of education. Integrating CBL with remediation practices creates a more cohesive and responsive learning system. This promotes differentiated and personalized learning pathways that, when supported by continuous assessment, help learners achieve mastery of competencies. According to Chou et al. (2019), a good competency-based remediation plan features well-defined instructional goals, individualized teaching strategies, and regular assessment checkpoints that monitor student progress. Such an education framework contributes not only to improving

instruction quality but also to developing educational policy in a way that all learners have equal learning opportunities. While DepEd policies define the importance of remediation as part of CBL, teachers often implement such practices informally and with limited institutional support. This inconsistency between the theoretical and policy expectations of CBL and the lived realities of classroom implementation underscores the need to examine current practices in depth.

This study aims to investigate the implementation of CBL and remediation practices in junior high school biology classes. Specifically, it is intended to determine how current practices address or do not address learning needs and to provide evidence for the development of a Competency-Based Remediation Framework or CBRF. The results of this study are expected to help educators, policymakers, and school administrators inform strategies for strengthening remediation efforts within competency-based systems, with a focus on public secondary schools in the Division of Misamis Oriental, Philippines.

The objectives of the study were to:

- To identify the instructional and support strategies used by teachers to help learners master the competencies in biology, including those who struggle to meet the required standards.
- To examine how teachers assess learners' competency levels before, during, and after instruction, and the challenges they encounter in implementing competency-based learning.
- To describe the existing remediation strategies or programs implemented for learners who do not meet competency standards.

2. Methods

Research Design

This study employed a qualitative exploratory design to investigate the implementation of Competency-Based Learning (CBL) and remediation practices in three public secondary schools. The design was chosen to explore teachers' lived experiences, challenges, and teaching practices related to CBL, particularly in biology instruction and remediation at the junior high school level. Thematic analysis, following Braun and Clarke's (2006) framework, was used to analyze the participants' narratives. This approach helped uncover patterns and meanings embedded within existing "competency-based" teaching and remediation practices.

Participants

Purposive sampling was used to select the participants, a method that, according to Patton (2015), is suitable for identifying individuals with rich information pertinent to the research topic. Initially, twelve biology teachers were invited, but only ten were able to participate due to scheduling conflicts and voluntary withdrawals. The inclusion criteria required that participants (a) were currently teaching biology under the CBL system, (b) had at least five years of teaching experience, and (c) possessed knowledge or experience in implementing remediation strategies.

The schools participating in the study were intentionally selected to represent diverse institutional environments, thereby enhancing the transferability of the results (Lincoln & Guba, 1985). To ensure confidentiality, every participant was assigned a unique alphanumeric code (STR1–STR10), which was consistently applied in data processing and reporting.

Data Collection

A semi-structured interview guide was developed to prompt teachers' perspectives on three domains consistent with the research objectives: (a) instructional and support strategies for facilitating competency mastery, (b) assessment approaches for determining learner competency levels, and (c) remediation practices for learners who do not meet competency standards. The interview guide included open-ended questions that allowed participants to elaborate on their lived experiences and instructional decisions (See Appendix A).

The interviews lasted about 30 to 45 minutes each and were conducted face-to-face at a time and place flexible for the participants. Interviews were recorded using an audio recorder with the participants' consent, and the recordings were transcribed word-for-word to facilitate analysis. The interview guide was expertly validated before data collection to ensure that it aligned with the research objectives. To enhance trustworthiness, the full set of semi-structured interview questions used in the study is presented in Appendix A for transparency, transferability, and auditability of the qualitative process.

Data Analysis

The six-phase process of thematic analysis, as described by Braun and Clarke (2006), was chosen as the data analysis method due to its popularity in the field of qualitative studies. This was initiated by familiarity with the data, where the transcripts were read repeatedly to have an in-depth understanding of the responses provided by the participants. This was then followed by the process of creating the first codes, which entailed the identification and labeling of significant statements related to the research questions. The second task was to find themes, in which similar codes were grouped into larger themes that represented repetitive concepts. One more step in searching for themes was performed to match related codes into broader themes that revealed the same ideas. The next step, which involved reviewing themes, entailed refining and clarifying them so that they accurately reflected the data. In the defining and naming themes phase, short and descriptive names were assigned to the themes, accompanied by a clear and accurate explanation. Lastly, during the creation of the report, conclusions were written using direct quotations of the respondents to highlight the main findings based on the information.

To provide the study's credibility, validation techniques were applied in accordance with Lincoln and Guba's (1985) criteria. Credibility was established through member checking, which enabled participants to review and confirm the interpretations, thereby having a say in their accuracy. Transferability was facilitated by providing near-contextual, in-depth descriptions of the research site. Dependability and confirmability were strengthened by an audit trail and several phases of manual coding, which together ensured consistency and analytical rigor.

Ethical Considerations

The research strictly adhered to the guidelines set by the institution and those related to ethical research. Before the data gathering began, the Research Integrity and Compliance Office (RICO) approved the study's ethical aspects. The participants were informed about the objective, methods, potential hazards, and benefits of the research, and then asked to sign a consent form before participating. Participation was voluntary, and the participants were guaranteed the right to withdraw at any time without consequences. To protect the identity of the participants, all identifying information was removed, and they were only referred to using codes assigned to them (STR1–STR10). Data was handled responsibly, upholding the ethical principles of respect, beneficence, and justice

(National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979).

3. Results and Discussion

3.1 Instructional and Support Strategies to Help Learners Master the Species Concept

This section depicts the thematic analysis of the instructional and support strategies utilized to help learners master the species concept. The following themes were identified and discussed: (1) Interactive and Inquiry-Based Methods, (2) Real-World Application and Contextualization, (3) Technological Integration and Visualization, and (4) Creative and Reflective Strategies.

3.1.1 Interactive and Inquiry-Based Methods

In all three schools, the interactive and inquiry-based methods used was evident. These methods are used to enhance student participation and deepen their understanding of the concept of species. In School A, teachers emphasized inquiry and real-life applications.

STR1 noted the use of “*written explanations, discussions, real-life examples, [and] videos*,” while STR3 described “*fieldwork, student inquiry, and scenario-based applications*.”

These activities encouraged exploration and hands-on learning consistent with inquiry-based science models that promote conceptual development and real-world application (Hmelo-Silver, Duncan, & Chinn, 2006; Minner, Levy, & Century, 2010). In

School B, teachers promoted interactive engagement through classification games, analogies, and quizzes.

STR5 remarked, “*Quizzes and real-life examples help learners see the relevance of the species concept*,” reflecting a structured yet participatory learning environment.

Such active learning approaches have been shown to improve student motivation and learning outcomes (Prince, 2013; Freeman et al., 2014).

In School C, STR8 shared that they used “videos and real-world cases” to implement case-based learning, helping make biological content more relatable and practical. Collectively, these practices demonstrate the teachers’ use of active learning strategies that encourage participation, metacognitive awareness, and deeper mastery of scientific concepts (Michael, 2006; Lombardi, 2007).

3.1.2 Real-World Application and Contextualization

Teachers in all three schools contextualized the species concept by connecting it to real-life scenarios, helping learners build meaningful understanding through relevant experiences.

In School A, STR2 reported incorporating “definitions, applied examples, classification apps, [and] contextualized examples,” which embedded scientific terms within familiar and practical settings. Engagement was elicited by situating abstract concepts in authentic experiences (Minner et al., 2010; Freeman et al., 2014). This

practice, according to Minner et al. (2010) and Freeman et al. (2014), supports the effectiveness of contextualized science instruction in knowledge transfer and engagement by connecting theoretical concepts to real-life experiences.

Teachers like STR6 and STR7, who were at School B, employed real-world tasks, letting learners engage with the theory actively and experientially. Such practices align with the situated learning theory, which posits that learning occurs in social interactions and context-rich environments (Lave & Wenger, 1991). On the other hand, School C implemented internet-aided research and case-based learning to connect species classification with real biological problems. This method has been backed up by research, which encourages the deployment of digital tools and case-based approaches to develop critical thinking and problem-solving skills in science education (Hmelo-Silver et al., 2006; Tomlinson et al., 2003).

3.1.3 Technological Integration and Visualization

Digital tools were widely adopted to enhance visualization and multimodal learning across schools. In School A, teachers combined videos and digital applications to supplement lessons, showing that technology played a supportive role in instruction. In School B, teachers blended traditional and digital methods—using interactive games and printed materials—though fewer explicit tech-based tools were mentioned. In contrast, School C demonstrated strong integration of technology. STR9 shared, “We use sorting cutouts, quizzes, and internet-based tasks to make the lesson hands-on and tech-driven.” The approach demonstrates a deliberate effort to accommodate diverse learning styles through the use of visual aids and interactive digital tools. Such methods are aligned with studies that claim that tech-supported classrooms can increase teacher-student interactions, help in providing different kinds of instruction, and even using different ways to access content through the tech-increased environment (Mayer, 2009).

3.1.4 Creative and Reflective Strategies

Creative and reflective teaching approaches were also observed, especially in Schools A and C. In School A, STR4 implemented performance tasks and concept cartoons, noting that “concept cartoons and species comparison allow learners to reflect and visualize differences.” These activities encouraged deeper engagement and critical thinking. In School C, STR10 shared that they used comics and gamified tasks, explaining that “comics and open-ended responses let learners express their learning creatively.” These methods fostered creativity and autonomy in demonstrating understanding. On the other hand, School B used more structured quizzes and analogies, while open-ended or performance-based tasks were hardly utilized. These findings align with the educational literature, which emphasizes that creative expression and reflective thinking are the primary factors contributing to conceptual understanding, intrinsic motivation, and personalized learning paths in science education (Jamal, Ibrahim, & Surif, 2019).

3.2 Instructional Challenges Encountered and Assessment Used in Teaching the Concept of Species

From the data obtained, three key themes surfaced on the challenges encountered and the assessment tools used: Instructional Constraints (Time and Resource Limitations), Misconceptions and Foundational Gaps, and Assessment Approaches to Support Conceptual Clarity.

3.2.1 Instructional Constraints (Time and Resource Limitations)

All the teachers in the three different schools agreed that insufficient instructional time and the lack of teaching materials were significant constraints to the effective use of competency-based learning. In School A, the heavy use of compressed timetables often restricted the extensive inquiry into the subjects. Teacher STR1, in a way, commented that they were “always running out of time,” which was the same problem as juggling between imparting knowledge and getting learners to understand it. School B faced similar pressures, as STR6 noted that time constraints and limited access to laboratory specimens and printed references hindered hands-on learning and effective remediation.

Meanwhile, School C’s difficulties were mainly attributed to the absence of multimedia resources and the need to update materials; STR9 specifically mentioned that inadequate digital resources played a crucial role in hindering the visual communication of abstract biology concepts. Such common difficulties highlight the still-existing structural hindrances that persist in the teaching of science, particularly in less fortunate educational contexts (Chin & Chia, 2004).

3.2.2 Misconceptions and Foundational Gaps

In all three schools, teachers consistently encountered persistent student misconceptions, particularly confusion between species, breeds, and varieties. In School A, STR2 noted that “learners confuse species with types of animals they are familiar with,” requiring educators to revisit foundational biological concepts and slow down instructional pacing to ensure clarity. School B faced similar difficulties, with STR5 describing how learners often struggled with hierarchical classification levels. Teachers in this school resorted to analogies and visual aids to preempt further confusion during complex tasks. In School C, educators employed real-life examples and case studies to ground student understanding and address conceptual gaps more proactively. As echoed in prior studies, such misconceptions are common in secondary biology and necessitate scaffolding through differentiated supports and contextualized instruction (Tekkaya, 2002).

3.2.3 Assessment Approaches to Support Conceptual Clarity.

Teachers in all three schools used a range of formative and summative assessments to monitor student understanding and correct misconceptions, with formative tools being particularly valued for their immediacy. In School A, STR3 emphasized how “group discussions make it easier to correct misunderstandings early,” highlighting the use of oral questioning, peer interactions, and mapping tasks for real-time feedback. School B employed oral quizzes, group activities, and comparison-based exercises to identify learners needing remediation, especially during skill consolidation. In School C, STR9 explained how “species comparison charts and concept mapping” were integrated with reflective writing to enhance comprehension and support continuous assessment. Summative assessments—such as quizzes, classification tasks, and performance outputs—were used to test retention in all schools; however, their range was often limited due to time constraints, which also restricted feedback to being thorough and personal (Black & Wiliam, 1998). Nevertheless, the teachers in the different schools were always trying their best to incorporate assessment into teaching and thus improve learning outcomes, even though there were time and resource constraints.

3.3 Remediation Strategy in Teaching Species Concept and Biodiversity

The use of simplified language, visual support, and structured worksheets emerged as a standard approach across schools. Despite contextual differences, all teachers acknowledged the need to reduce the cognitive load associated with complex biological terms.

In School A, simplification was primarily achieved using visual aids and structured worksheets that emphasized key ideas while omitting overly technical terminology. STR1 stated that making the material less complex allowed the learners to “pay attention to the most important things”, meaning that lowering the density of the content made the learners more actively involved with the fundamental biological concepts. Teachers pointed out that providing ideas in visually structured ways not only lowered learners’ anxiety but also helped them to remember, especially those who did not know much about the subject before.

In School B, simplification was implemented through guided discussions and sequential explanation techniques. STR6 described using “progressive questioning” and analogies to help learners grasp distinctions between species, genus, and other taxonomic ranks. Teachers preferred oral delivery supported by examples from everyday life, which allowed learners to gradually contextualize scientific concepts. This method helped bridge knowledge gaps, particularly for learners who struggled with scientific vocabulary or abstract categorization.

School C employed a technology-enhanced approach to simplification. STR9 and STR10 integrated multimedia resources such as short videos, classification games, and infographics to help learners visualize complex biodiversity relationships. Teachers also deliberately used layman's terms before gradually introducing scientific labels. STR10 emphasized that “starting simple and building up” made learners more confident in using terms like “species diversity” and “adaptation” in context. The differentiated approaches employed across schools revealed a common perception that simplifying content does not mean taking away the content but supporting comprehension through methods that are easy and centered around the learner. The practice accords with Bruner's (1974) spiral curriculum, which promotes the early presentation of central concepts in a simplified form, and their gradual reintroduction at higher levels of complexity over time. It also mirrors Tomlinson's (2003) model of differentiated instruction, which urges altering content delivery to s' readiness levels. This aspect is particularly critical in biology, where the terminology is heavy and the concepts are challenging to grasp.

Synthesis and Comparative Insights: Instructional Challenges, Assessment, and Remediation Practices

Teachers in all three schools involved in the study were committed to improving learners' understanding of the concept of species through a variety of instructional, assessment, and remediation techniques. Nevertheless, some systemic and contextual challenges arose in areas with limited resources. Teachers faced similar limitations in instruction across all schools.

The core problems were quite the same for all teachers: limited instructional time, large class sizes, and inadequate teaching resources. These conditions always prevented them from conducting in-depth inquiry-based lessons. In past research, it was noted that effective science learning requires ample time, resources, and opportunities for hands-on activities, the very conditions that are often lacking in under-resourced areas (Chin & Chia, 2004). These structural constraints made it inevitable for teachers to prioritize coverage over mastery, which in turn limited learners' chances to develop a higher-order understanding.

The existence of misconceptions and foundational knowledge gaps continued to be a significant issue across schools regarding the species concept and biological classification. For instance, the incorrect use of the terms "species," "breed," and "variety" by learners was common and had been identified as a source of misunderstandings in secondary biology before (Tekkaya, 2002; Trowbridge & Mintzes, 1985). The teachers were putting their all into solving the issue by making analogies, showing pictures, and giving regular explanations, which indicated quite strongly that there was a need for support and different teaching methods. However, misconceptions still exist, implying that the need for very gradual teaching, in which learners receive continuous feedback, remains necessary for proper and meaningful learning.

Teachers utilized assessment as a significant tool and employed both formative and summative assessments to identify areas of learners' weakness and modify their teaching methods. Formative assessments, such as oral questioning, peer discussions, and concept mapping, were the most helpful for providing instant feedback and clarification. Summative tasks, which involved quizzes and classification exercises, were used to assess learners' understanding but were often time-consuming and did not provide sufficient feedback. This corresponds to the argument of Black and William (1998) that formative assessment contributes to learning when appropriately done in conjunction with instruction. Nevertheless, the assessment practices in every school were still teacher-centered and did not incorporate systematic diagnostic measures needed for individualized remediation. School A primarily employed visual aids accompanied by more structured worksheets; School B opted for a combination of oral explanations, analogies, and peer tutoring; and School C utilized technology and multimedia to master the concepts. These different approaches are indeed teaching methods that concentrate on skills. However, at the same time, they highlight the requirement for institutionalized remediation frameworks that would allow for sustainability and consistency across various contexts. The study's findings suggest that teachers' limitations were primarily due to systemic challenges, rather than their teaching skills. The teachers were very creative and adaptive in implementing CBL. Organized diagnostic assessments and remedial instruction were not available, and, in addition, the absence of ready-to-implement resources hindered their full potential in implementing competency-based learning.

A Competency-Based Remediation Framework (CBRF), along with diagnostic tools, differentiated learning pathways, and practical assessments, will close the learning gaps while also enhancing understanding of challenging biology concepts. The comparative analysis reveals that teachers in all three schools face similar challenges and develop similar adaptive responses. They strive to achieve both coverage and mastery, are innovative within restrictions, and utilize assessment to guide their work. Nonetheless, these practices, if not supported by the institution, are still isolated. By increasing the alignment among instruction, assessment, and remediation in a common CBRF, it would be possible to change these isolated efforts into a coherent system for the sustained success in biology education.

4. Conclusion

This paper examines the teaching techniques, learning assessments, and remediation strategies used by biology teachers in three state-funded schools to help learners master the competencies outlined in the Competency-Based Learning (CBL) framework. Educators demonstrated an excellent level of confidence in active and student-centered teaching, utilizing case studies, simulations, real-life applications, and technology-enhanced teaching tools. These methods yielded effectiveness in conceptual mastery, such as mastery of species.

Nonetheless, educators faced numerous challenges, including large class sizes, limited time to teach, and inadequate access to teaching and remediation resources. These limits were a hindrance to the implementation of effective strategies and the individualization of instruction for each student. Assessment practices included pre-tests, formative feedback, and performance-based tasks; however, systemic limitations influenced them, limiting their capacity to inform individualized learning.

The remediation process, although creative and based on sound pedagogy, such as peer tutoring, simplification of content delivery, and the use of visual representations, was informal, unorganized, and not consistently implemented. Educators reported a willingness to do more but stated that the primary obstacle was the lack of institutional support and assistance.

To conclude, although the present instructional and remedial approaches are based on the principles of practical pedagogical approaches, they are limited by systemic problems. There is an urgent need to institutionalize the Competency-Based Remediation Framework (CBRF) with structured diagnostic assessments, differentiated instruction, modularized content, and systematic progress monitoring. To provide a fair scale of these practices, promote the effectiveness of remediation, and eventually guarantee that all learners acquire the mastery of core competencies within CBL environments, institutional support is essential.

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Appendix A

SEMI-STRUCTURED INTERVIEW GUIDE FOR SCIENCE TEACHERS

Purpose of the Instrument

This semi-structured interview guide was developed to elicit biology teachers' experiences with implementing Competency-Based Learning (CBL) in junior high school, focusing on three domains consistent with the study objectives: (a) instructional strategies for facilitating competency mastery, (b) assessment of learner competency levels, and (c) remediation practices for struggling learners.

Interview Domains and Guiding Questions

Domain 1: Instructional Strategies for Competency Mastery

1. How do you deliver classroom instruction to help learners master the required competencies?
2. What instructional strategies or approaches do you find most effective in facilitating learner understanding and competency mastery?
3. How do you address differences in learners' readiness or pace during instruction?
4. What teaching resources and materials do you use to enhance learners' mastery?
5. What challenges do you encounter when implementing instruction under CBL?

Domain 2: Assessment of Learner Competency Levels

1. How do you determine whether learners are ready to engage with a particular competency?
2. What assessment tools or methods do you use during instruction to monitor learners' progress? How do you identify misconceptions?
3. How do you assess whether learners have achieved mastery of the competency by the end of the lesson?
4. How do you use assessment results in your instructional decisions or adjustments?
5. What difficulties do you experience when assessing learner competency levels?

Domain 3: Remediation Practices for Learners Who Do Not Meet Competency Standards

1. How do you identify learners who need remediation?
2. What remediation strategies/programs are available in your school for learners who do not meet the required competency?
3. What personal strategies or adjustments do you use to help struggling learners improve their competency mastery in biology?
4. In your experience, what makes remediation successful or difficult to implement?
5. What support systems, resources, or policies would help strengthen remediation efforts?