HDFC FDP Impact Assessment – Implementation of 'Competency Based Learning' in the India Education System through curriculum and pedagogy change (P0617)

Impact Assessment Report

Submitted To

HDFC Bank CSR

Submitted By

Sambodhi Research and Communications

Confidentiality Statement

Information, data and diagrams embodied in this proposal are strictly confidential and are supplied on the understanding that they will be held confidentially and not disclosed to third parties without the prior written consent of Sambodhi Research and Communications Private Limited.

Contents

Table of Figures

Table of Tables

1. Executive Summary

The Competency-Based Learning (CBL) initiative, led by the Sri Aurobindo Society and supported by HDFC Bank's Parivartan CSR program is an initiative towards revolutionizing education by shifting focus from rote memorization to practical, real-world application of knowledge. This approach emphasizes critical thinking, problem-solving, and foundational skills, aligning with the National Education Policy (NEP) 2020. By fostering competencies rather than content retention, the program aims to equip students with the tools needed for academic and lifelong success.

CBL's implementation introduced innovative teaching strategies, such as activity-based learning, storytelling, and group work, to promote a deeper understanding of concepts. Teachers played a central role in this transformation, undergoing comprehensive training to integrate CBL methodologies into classrooms. With over 282 chapter-specific lesson plans and diagnostic tools developed for Grades 6–10 in English, Mathematics, and Science, the project has provided a robust framework for competency-oriented education.

Storytelling emerged as a powerful tool within the CBL framework, enabling teachers to contextualize lessons with relatable narratives. For example, science topics were introduced through anecdotes about discoveries, sparking curiosity and making theoretical concepts more accessible. Similarly, group activities fostered collaboration and peer learning, reinforcing students' ability to apply knowledge in practical settings.

The program's emphasis on diagnostic assessments has further enhanced its impact, enabling educators to track student progress and address learning gaps effectively. By aligning assessments with competency-based objectives, teachers could evaluate not just what students learned, but how well they could apply their understanding to solve problems.

Despite these successes, challenges remain. Teachers reported difficulties in adapting to new methods due to limited resources, time constraints, and foundational gaps among students. Integrating CBL activities within traditional curricula posed additional challenges, with educators often struggling to balance innovative techniques with syllabus completion. These hurdles underscore the need for sustained support, including regular training, resource allocation, and curriculum alignment.

The pilot phase in Maharashtra demonstrated CBL's potential to revolutionize education. Teachers have suggested, increased student engagement, curiosity, and retention of concepts when lessons were tailored to real-world scenarios. Teachers noted that even less confident students became active participants, illustrating the program's ability to foster inclusivity and build life skills.

Looking ahead, the sustainability of CBL will depend on addressing resource gaps, scaling teacher training programs, and embedding CBL principles into mainstream educational policies. By leveraging partnerships with educational bodies, NGOs, and community stakeholders, the initiative can ensure its long-term success and scalability.

In conclusion, the Competency-Based Learning initiative has redefined teaching and learning practices, transforming classrooms into dynamic, student-centered environments. Through its emphasis on critical thinking, collaboration, and real-world applications, CBL is paving the way for a more inclusive and effective education system, equipping students to thrive in an evolving world.

2. Key Indicators

OECD-DAC Criteria	Indicators
Relevance	Key components covered and found beneficial in CBL Training
	Preparation for Implementing CBL in the Classroom
	Relevance of the Project to Teaching Practices
Coherence	Alignment of the Intervention with Existing Policies/Systems
	Support Received for the Intervention from Local/Community/Government
Effectiveness	Effectiveness of CBL Training sessions
	Effectiveness of CBL Materials and Resources
	Overall Effectiveness of the Project
Efficiency	Participation in Competency-Based Learning (CBL) Training
	Number of CBL Trainings Attended in the Previous Academic Year
Impact	Impact of CBL Training on Teaching Practices
	Quality of the CBL Training Sessions
	Ease of integrating CBL into Existing Teaching Practices
Sustainability	Sustainability of the CBL Approach
	Sustainability of Project Activities and Impact
	Confidence in Applying Learnings from the Training

3. Background

Education is the cornerstone of societal and economic development, providing individuals with the skills and knowledge necessary to navigate life and contribute meaningfully to their communities. However, India's education system has long grappled with challenges, particularly at the K-10 level, where rote learning dominates. Traditional content-based learning and assessment frameworks have prioritized knowledge retrieval over critical thinking and problem-solving, leaving students ill-prepared for real-world challenges. This gap became especially evident when India ranked 173rd out of 174 countries in the 2011 PISA assessment, sparking a nationwide demand for systemic reform.

Competency-Based Learning (CBL) emerged as a transformative approach to address these shortcomings. By emphasizing the development of essential skills, attitudes, and abilities alongside knowledge, CBL aims to equip students to apply their learning to practical scenarios. Unlike rote methods, CBL focuses on fostering a deeper understanding of concepts and their applications. For instance, students studying mathematics are encouraged to develop a "mathematical attitude" to solve everyday problems rather than merely memorizing formulas. This shift aligns with the National Education Policy (NEP) 2020, which advocates for innovative, student-centered teaching practices to enhance engagement and outcomes.

What is CBL?

Competency-Based Learning (CBL) is an educational approach focused on ensuring that students acquire not only knowledge but also the attitudes, abilities, and problem-solving skills necessary to apply that knowledge in real-world situations. Instead of emphasizing rote memorization and the simple recall of information, CBL aims to help learners understand concepts more deeply and use what they learn to address practical, everyday challenges. For example, in CBL, studying mathematics isn't limited to learning formulas; it involves developing a "mathematical attitude", the capacity to use mathematical reasoning and methods to solve real-life problems. This approach seeks to move beyond traditional "learn, memorize, and forget" cycles and cultivate meaningful, enduring competencies that enhance students' long-term employability, critical thinking, and adaptability.

The CBL initiative, spearheaded by the Sri Aurobindo Society and supported by HDFC Bank's Parivartan CSR program, seeks to revolutionize classroom teaching and learning in India. Launched as a pilot in Maharashtra, the project aims to transition schools from rote learning to a competency-based model. Core activities include developing a comprehensive framework, creating lesson plans and diagnostic tools, and training teachers to implement CBL effectively in classrooms.

During its pilot phase, the project demonstrated the practicality and impact of the CBL framework through classroom demonstrations and resource distribution. Teachers observed significant improvements in student engagement and comprehension when lessons incorporated real-life examples and hands-on activities. For example, storytelling was used to introduce scientific concepts, while group-based projects helped students develop teamwork and problem-solving skills. Despite initial challenges, such as time constraints and gaps in foundational knowledge, the pilot highlighted CBL's potential to transform education by making learning relevant, interactive, and application-driven.

The collaboration between the Sri Aurobindo Society and HDFC Bank has been instrumental in laying the groundwork for this transformative shift. By aligning with NEP 2020 and leveraging inputs from educational experts, the project aims to create scalable and sustainable solutions that address the unique needs of India's diverse educational landscape. Through ongoing efforts in teacher training, resource development, and curriculum integration, the Competency-Based Learning initiative aspires to redefine the future of education in India, ensuring that students are equipped not just to pass exams but to excel in life.

4. Objectives of Impact Assessment & Scope of Work

The overarching objective of the assignment is to conduct a systematic impact assessment of the project and to evaluate the efficacy, effectiveness of the project interventions, and sustainability of the project's outcomes.

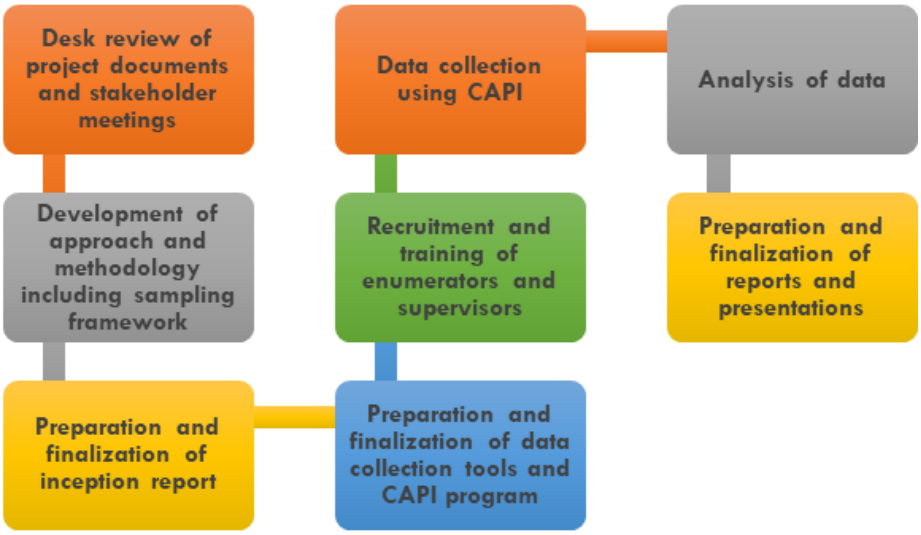
The primary objectives of this impact study are:

1. To assess the effectiveness of the content creation and deployment of Competency-Based Learning (CBL) pathway among students
2. To evaluate the impact of teacher training on resource creation and delivery

3. To assess the effectiveness of chapter-wise assessment items created for students
4. To identify the best practices and improvement areas for scaling up the project

4.1 Scope of Work

In line with the objectives of the study, the following tasks were carried out by Sambodhi for this assignment:



5. Approach and Methodology

5.1 Research Design

5.1.1 Design & Approach

The present impact assessment employed a **retrospective pre-post design**[9] for capturing the perceived changes resulting from HDFC's interventions. This approach, while subject to recall bias, provides valuable insights into the perceived impact of the intervention by leveraging participant's memories of their pre-intervention conditions. Wherever possible the existing baseline and midline figures would be utilized to gauge the impact of the program and in case of absence of such figures, the concerned values would be computed using secondary sources and available program documents.

To enhance the reliability and depth of this design, a **mixed-methods approach**[10] will be utilized. This convergent methodology will combine **quantitative** and **qualitative** data collection to provide a comprehensive understanding of the project. Quantitative data will measure the extent of changes in key outcomes, while qualitative insights will delve into the reasons and mechanisms behind these changes, offering

a richer understanding of the intervention's impact. Primary data will be collected through interviews, while secondary data will be reviewed to contextualize findings and support the analysis.

5.1.2 Methodology

As stated before, a convergent methodological approach was combined **quantitative** and **qualitative** data collection to provide a comprehensive understanding of the project.

A **Semi Structured Interview** was administered with teachers to gauge their understanding of the pedagogy. Emphasis was laid upon motivation in education settings, ability to put trainings to practice, incorporation of innovative mechanisms in imparting lessons and execution of Competency-based Learning framework in classrooms. In the aforementioned exercise, Sambodhi attempted to ensure a balanced gender ratio in teacher coverage.

For the qualitative analysis, **Key informant Interviews** (KIIs) were conducted with various stakeholders to understand the various aspects of project activities both targeted and achieved, and the challenges/obstacles faced during the process of implementation. These included, school leadership (Headmasters/Principals), education officers & government stakeholders, as well as program implementation & management partners.

5.1.3 Evaluation Framework

Figure 1: OECD DAC Framework

Considering the objectives of the project and in synergy with the research design stated above, this assessment will be based on the **OECD-DAC framework.**[8] The components of the proposed evaluation framework will be a guiding beacon in our conceptualization of areas of enquiry and key indicators, against which the impact of the project can be assessed.

The components of the proposed evaluation framework are –

1. **Relevance –** The extent to which the objectives of the development intervention are consistent with beneficiary requirements, state needs, institutional priorities, partners, and funding stakeholders, as well as mission coherence in achieving its objectives.
2. **Coherence –** The extent to which activities can converge with other programs/projects running the geography/sector. As per the RfP, the element of *convergence* stated in the assessment framework aligns closely with the coherence component of OECD DAC framework, ensuring continuity of the project's interventions owing to support from the wider ecosystem.
3. **Effectiveness –** The extent to which the development project's objectives were achieved or are expected to be achieved considering their specificities (not just physical outputs but also high-level

results; explaining factors determining achievements, including change of context; looking at other possible achievements). As per the RfP, the element of *replicability* stated in the assessment framework supplements the effectiveness of the program by highlighting the fidelity of activities undertaken as also indicating the probable execution & extension of project across newer geographies (outside of target areas).

4. **Efficiency –** A measure of how economically resources/inputs are converted into results, with reference to project benchmarks (include project delays, overruns; technical issues)
5. **Sustainability –** The likely continuation of net benefits from a development intervention beyond the phase of funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the mission activities.
6. **Impact –** The changes that have occurred or are expected to occur in the lives of the target beneficiaries (direct and indirect). Within the component of Impact, Sambodhi will also study the aspect of *Equity* to discern the extent to which the benefits of the project were equally distributed among the members, especially from the marginalized communities.

5.2 Study Tools & Sampling Strategy

5.2.1 Quantitative Sample

In line with the objectives and the expected outcomes of the study, concentrating on content development and teachers' understanding and usage of Competency-based learning framework, we proposed adopting a census approach for sample coverage. This approach enabled us to cover the entire universe of the teacher population.

We proposed to assess 1 teacher, who has undergone training, from every project school. Given this, a sample of 46 was found sufficient to provide estimates at the project level. We bifurcated the total sample of 46 between 36 telephonic interviews and 10 in-person interactions. This has been further detailed out in the in the table below:

Project 3: Implementation of 'Competency Based Learning' in the India Education System through curriculum and pedagogy change (P0617)					
State	Block	Total Schools	Teachers (Telephonic)	Teachers (In-person interaction)	Total Teachers
1	5	46	36	10	46
Note:					

1. As the project was focused on teachers as direct beneficiaries, only teachers were be interviewed. No students have been covered owing to the nascent stage of the intervention and lack of baseline assessment.
2. We proposed to conduct **36 telephonic interviews** of the trained teachers and an additional **10 trained teachers were covered through semi-structured interviews** during in-person interaction at the site of the intervention (school), where qualitative studies were carried out. **Thus, cumulatively, we covered 46 teachers who have undergone training.**
3. HDFC Bank CSR team was expected to share a list of teachers along with the contact information.

Table 1: Quantitative Sampling

In the case of teachers, a self-reported tool was employed to measure their ability in employing learnings from trainings and effectiveness in imparting quality lessons in classrooms through innovative methods.

5.2.2 Qualitative Sample

For the qualitative analysis, Key informant Interviews (KIIs) were conducted with multiple stakeholders to understand the various aspects of project activities both targeted and achieved, and the challenges/obstacles faced during the process of implementation.

An indicative list of stakeholder categories covered during primary research is provided in the table below:

Project 3: Implementation of 'Competency Based Learning' in the India Education System through curriculum and pedagogy change (P0617)		
Stakeholder	**Size**	**Method**
Teachers (1 for each of the 10 remaining schools)	10	Semi-Structured Interviews
Headmasters (random selection of 1 per block)	5	KIIs
Education Officers	2	KIIs
Implementing Partners	2	KIIs
Senior Management HDFC CSR	1	KIIs
Total	**20**	

Table 2: Qualitative Sampling

5.3 Preparatory Activities

Before commencing data collection, a series of preparatory activities were undertaken to ensure a robust evaluation process. An inception meeting was conducted with the HDFC CSR team and the implementation partner, Sri Aurobindo Society, to gain a comprehensive understanding of the project's scope and achievements. This meeting covered the timeline from the project's inception in April 2022 to its conclusion (in collaboration with HDFC) on March 31, 2023.

A desk review of documents provided by Sri Aurobindo Society was carried out to examine the project's key activities and outcomes. Follow-up discussions with the implementation partner were held to delve deeper into their work under the Competency Based Learning (CBL) program.

During this phase, decisions were made regarding the assessment of teachers who underwent CBL training during the project's Pilot, a semi-structured tool was designed to gather both qualitative and quantitative insights. To further supplement the data, qualitative tools were administered to key stakeholders, including school leadership (Headmasters/Principals), education officers & government stakeholders, as well as program implementation & management partners.

The tools were meticulously prepared in alignment with the research questions, key areas of inquiry, and the indicator list developed in consultation with the HDFC CSR team. Draft versions of both qualitative and quantitative tools were shared with the team for review and finalization. Once approved, Computer-Assisted Personal Interviewing (CAPI) tools were developed using platforms like Survey CTO and Survey Point. These tools included translations into vernacular languages to ensure accessibility.

Pre-testing of the tools was conducted to identify any gaps or inconsistencies. Based on the findings from the pre-tests, necessary revisions were made to refine the tools and ensure their effectiveness during data collection.

5.3.1 Training

Training sessions were conducted in-person in Nagpur, Maharashtra for the Marathi speaking enumerators.

The training aimed to familiarize the field team with the study objectives and ensure the quality of data collection. Following the "learning by doing" approach, the training included comprehensive classroom sessions combined with on-field practice exercises. The field team participated in detailed classroom training, followed by practice sessions and debriefing. These activities were designed to ensure a shared understanding among team members of the survey's scope, sampling techniques, study topics, qualitative and quantitative tools, question-asking techniques, and expected outputs.

To support the training process, HDFC team members also participated virtually, contributing to the overall effectiveness of the preparation.

5.3.2 Data Collection and Monitoring

After the training, Sambodhi's enumerators initiated data collection in Pune, Maharashtra. A semi-structured questionnaire was administered to teachers. In addition, qualitative interviews were conducted with other key stakeholders, including headmasters and education officers. All necessary protocols were adhered to, and required permissions were obtained prior to engaging with stakeholders. The data collection for CBL Project's evaluation was conducted over a span of 14 days.

Throughout the data collection process, data monitoring was conducted in real-time via SurveyCTO to ensure accuracy and flag inconsistencies. Any identified issues were promptly rectified, ensuring robust and reliable data for analysis. Sambodhi's team maintained consistent coordination with the HDFC CSR team and the implementation partner to secure permissions and address operational needs effectively.

5.3.3 Analysis

Once the aggregate data was received, the analysis process began. Quantitative data was cleaned and analyzed using STATA 13, with necessary statistical techniques applied to derive meaningful insights. For the qualitative interviews, transcripts were prepared by transcribing and translating the interviews. A qualitative codebook was then developed to systematically analyze responses from various stakeholders. The results of these analyses are presented in detail in the following sections.

6. Limitations

The evaluation faced several limitations:

- Certain sample schools had to be substituted because the teachers were unavailable for interviews.
- The evaluation period primarily coincided with the development of the CBL framework and the creation of key materials, such as lesson plans and diagnostic tests. This was followed by a pilot phase in Pune, which included at least two training sessions per school. However, without subsequent follow-up training, the impact of these initial sessions is likely to be limited. Consequently, there is a possibility that teachers' responses during the evaluation were influenced by social desirability bias.
- Classroom observations could not be conducted due to operational constraints

7. Process Mapping

7.1 How was this project conceptualised?

The project was conceptualized in response to a significant shift in India's educational priorities. After decades of focusing on increasing school enrollment through initiatives like SSA, RMSA, and mid-day meal schemes, the country achieved a Gross Enrollment Ratio of around 95%. With wider access secured, the next crucial step was to improve the quality of education.

A pivotal moment came when India participated in the 2011 PISA (Programme for International Student Assessment) and ranked 173rd out of 174 countries, prompting the nation to opt out of subsequent PISA cycles. As India prepared to re-enter PISA in 2019, it became clear that the traditional rote learning approach would not suffice. The education system needed a framework that focused on real-life application of knowledge, critical thinking, and problem-solving skills—essentially, Competency-Based Learning (CBL).

The Central government approached Sri Aurobindo Society (implementing partner) to develop a competency-based education framework tailored to India's demographic and educational landscape. Collaborating with ACER (Australian Council for Educational Research), the team created a CBL framework aligned with the National Curriculum Framework. This framework was designed to facilitate a transition from rote-based methods to competency-oriented teaching and learning, marking a significant shift toward quality enhancement and long-term educational reform.

7.2 Project Objectives

The central objective of this project was to create and implement a comprehensive Competency-Based Learning (CBL) framework for India's school education system. It aimed to move beyond rote learning by ensuring that knowledge and skills acquired by students translate into real-world problem-solving abilities. To achieve this, the project focused on developing a nationally applicable CBL framework aligned with the National Curriculum Framework (NCF), creating lesson plans and assessment tools that map existing textbooks to competency-based objectives, and designing training programs to equip teachers with the necessary understanding and skills to implement CBL practices in their classrooms.

Ultimately, the project sought to increase the quality of education by nurturing a mindset of application rather than memorization, improving students' engagement and real-life readiness. It intended not only to guide teachers in transitioning from conventional methods to activity-driven, conceptually grounded approaches but also to lay the groundwork for long-term systemic changes that would enhance educational outcomes, employability, and performance in international assessments such as PISA.

7.3 Project Activities

During the collaboration with HDFC, the project's primary activity was the initial development and formulation of the competency-based learning (CBL) framework. HDFC Bank provided financial support that enabled the implementing partner to create and refine the framework's foundational elements. This included:

1. **Framework Development:** Crafting a comprehensive, competency-based educational framework aligned with the National Curriculum Framework (NCF). This framework served as a guide on how to integrate and implement CBL principles within existing curriculums.

2. **Resource Creation:** Designing lesson plans, assessment tools, and training materials that teachers could use in classrooms. These resources were tailored to map current textbooks and subject matter to the newly identified competencies and outcomes, ensuring that teachers wouldn't have to wait for new textbooks.

3. **Piloting and Validation:** A pilot phase was conducted in Maharashtra, using the initial framework developed with HDFC's support, to test the new teaching methodology in actual classroom settings. Additionally, the project team held classroom demonstrations across various schools as recommended by the state's Education Department in Pune. Typically, one to three demonstration sessions were conducted in each school, during which teachers were invited to observe and understand the competency-based method of instruction. These piloting efforts helped validate the framework's practicality and guided further improvements.

While other phases of implementation (such as scaling the program to Kendriya Vidyalayas and Navodaya Vidyalayas nationwide) and ongoing training initiatives also occurred later, it was the collaboration with HDFC that laid the groundwork by funding the initial stages of framework development and early resource creation

7.4 Key Milestones in the Project's Progress

- **Local Adaptation of the CBL Framework:**
  The implementation partner, in collaboration with SCERT Pune, mapped state textbooks to competency-based objectives so teachers could begin using the framework without waiting for textbook revisions. Frameworks for the Maharashtra curriculum were successfully developed for Grades 6–10 in English, Maths, and Science.

- **Development of Lesson Plans and Resources:**
  Detailed lesson plans were created to demonstrate how real-life examples and activities could help students grasp concepts more effectively. These plans highlighted relevant competencies, materials required, and practical classroom activities.

    - CBL lesson plans were developed for 282 chapters across English, Maths, and Science, tailored to the Maharashtra curriculum.
    - A total of 10 competency-based test items were created for each of these 282 chapters, covering Grades 6–10 in English, Maths, and Science.
    - Diagnostic tools were created for periodic assessments:
        - Four sets of diagnostic tests for Grades 6–8, with each set including one test for English, Maths, and Science.
        - Four sets of diagnostic tests for Grades 9–10, similarly, covering all three subjects.

- **Teacher Training and Classroom Demonstrations:**
  Two workshops on competency-based learning and assessment writing were conducted for in-house trainers. These trainers visited 45 schools in Pune at least twice to orient teachers on competency-based pedagogies, assessment methods and diagnostic tools. The materials were made available in both English and Marathi. The implementation partner also conducted classroom demonstrations, showing how to implement the new lesson plans step-by-step.

- **Pilot Testing and Feedback Loops:**
  In-house trainers from Sri Aurobindo Society specializing in English, Maths, and Science visited 45 schools in Pune. They demonstrated CBL lesson plans to students in the presence of teachers, conducted experiential learning activities, addressed teacher queries, provided feedback on CBL pedagogy, and gathered feedback from students, teachers, and school management. This feedback was used to refine lesson plans, assessment tools, and support resources.

- **Validation by Educational Experts:**
  Throughout the process, experts from SCERT, the Ministry of Education, and ACER (Australian Council for Educational Research) reviewed and validated the pilot's outputs. This external scrutiny helped ensure the framework's suitability for larger-scale use.

7.5 Process behind development of the CBL Framework

The development of the Competency-Based Learning (CBL) framework was a collaborative effort that brought together multiple stakeholders, each contributing distinct expertise and perspective. Sri Aurobindo Society spearheaded the process of creating and refining the framework. They managed the on-ground implementation, maintained relationships with various educational authorities, and coordinated the alignment of the new approach with existing teaching materials and practices, primarily led by their in-house educational experts.

At the national level, the Ministry of Education played a pivotal role. In the wake of India's low ranking in the 2011 PISA assessment, the Ministry recognized the need for a more application-oriented educational system. Tasked with improving learning quality, it commissioned the development of the CBL framework. Once finalized, the Ministry adopted it as a guiding document and made it accessible nationwide through the CBSE website, promoting widespread integration and standardization.

Technical expertise came from the Australian Council for Educational Research (ACER). Having been involved in the creation of the original PISA tests, ACER's consultants offered invaluable insights into global best practices and competency-based assessment methodologies. Their guidance ensured that the framework was both theoretically sound and practically implementable, aligning with international standards while remaining sensitive to India's unique educational landscape.

Localization and contextualization of the framework were made possible through close collaboration with SCERT Pune (State Council of Educational Research and Training). This state-level academic body was instrumental in tailoring the framework to the Maharashtra context. By mapping existing state textbooks and curricula to the new competency-based objectives, SCERT ensured that teachers could immediately begin implementing CBL without waiting for new teaching materials.

While other state education departments and school-level authorities had a more limited role largely due to their initial unfamiliarity with competency-based education, their input still mattered. Through consultations, pilot phases, and classroom demonstrations, all stakeholders, whether national-level experts or on-ground educators, engaged in a continuous process of refinement. Expert panels, comprising representatives from ACER, SCERT, and the Ministry of Education, reviewed components of the framework regularly, validating its structure and content before it moved into broader practice. In this way, a wide range of stakeholders worked together to shape a comprehensive and transformative CBL framework poised to improve the quality of education across India.

7.6 Pilot

The pilot phase in Maharashtra provided several key observations that helped validate the Competency-Based Learning (CBL) framework and refine its implementation strategies. By testing the methodology in actual classroom settings, the team confirmed that the framework's guidelines were both practical and relevant. Teachers who participated in the pilot began to understand CBL concepts more concretely, seeing firsthand how mapping existing textbooks to competencies eliminated the need for immediate textbook overhauls. This eased the transition and built confidence among educators.

The pilot also revealed that classroom demonstrations could serve as effective training tools. When teachers observed CBL in action—through activities, real-life applications, and interactive lessons—they were better able to grasp the approach's benefits. Students showed greater engagement and responsiveness, particularly when mathematical and scientific principles were connected to tangible, everyday scenarios. These on-site demonstrations not only addressed teachers' initial hesitation but also guided improvements in lesson planning and instructional design.

7.7 Post Pilot Model of Implementation

As derived from the Qualitative interview conducted with the Implementation partner, the current implementation model revolves around a nationwide rollout, building on the framework initially piloted in Maharashtra. After developing and validating the Competency-Based Learning (CBL) framework, the project worked closely with the Central Board of Secondary Education (CBSE) to make the framework, along with lesson plans and assessment tools, accessible on the CBSE website. This move enables schools across the country to reference and adopt CBL practices.

In parallel, the focus has shifted to teacher capacity-building. Rather than supplying teachers only with pre-made lessons, the approach now involves equipping educators with the skills to develop their own competency-based lesson plans and assessments. Training sessions are conducted in central government schools, including Kendriya Vidyalayas and Navodaya Vidyalayas, where teachers undergo multi-day workshops. During these workshops, they learn how to embed CBL principles into their daily teaching, design and evaluate learning activities, and gradually internalize a more application-oriented, student-centric pedagogy. This capacity-building approach ensures that the implementation model is not dependent on external resources alone, but increasingly sustained and driven by the teachers themselves.

Support continues from various funders and educational bodies, ensuring that schools have both the policy-level endorsement (via CBSE) and the technical know-how (through teacher training and framework materials) to integrate CBL effectively. In essence, the current model leans toward a sustainable, teacher-empowered, and institutionally supported adoption of competency-based methods across the educational ecosystem.

Several teachers mention that any formal guidance they received was often limited to one-off orientations or informal mentoring from the implementation partners that visited their school and demonstrated how to plan lessons. One educator notes, for instance, that *"madam told us how to take the studies and a particular lesson and they also examined,"* indicating reliance on ad hoc support rather than a structured professional development program. Where more systematic training was available, it usually included lesson plans or kits intended to illustrate how to break a topic down into sequential, competence-based steps. Another teacher recalls being shown *"proper materials and instruments by the organisation... they have also instructed properly when to perform which activity,"* underlining the importance of not just receiving resources but also learning how to integrate them into daily teaching.

Despite these pockets of assistance, many teachers express a strong desire for consistent, ongoing training sessions that move beyond providing ready-made lesson plans. They want workshops that explain how to design their own materials, conduct formative assessments, and adjust tasks for different ability levels.

Several mention feeling uncertain about where to begin without additional guidance, particularly when juggling standard curriculum coverage with CBL's more interactive components. One teacher highlights time constraints by saying that *"CBL takes a lot of time,"* underscoring the need for training to include strategies for planning shorter, targeted activities that fit within limited class periods.

In some schools, teachers have attempted to fill this gap by pooling their collective knowledge. They discuss grouping students by ability, preparing short stories or case examples before the main lesson, and using quick checks or oral quizzes to evaluate comprehension. While these strategies stem from teachers' own experimentation, most agree that more structured support from formal workshops, digital repositories, or detailed lesson-planning guides, would elevate and standardize their efforts. One teacher notes that *"if training is given to every teacher, it would be easier for them to understand and know something new,"* suggesting that such interventions would help scale up competence-based teaching throughout a school or district.

Overall, teachers' experiences suggest that creating or adapting lesson plans and assessments under CBL relies on three major supports: having access to materials that demonstrate how to translate broad competencies into discrete classroom activities; receiving formal or ongoing training that shows how to embed these activities within existing timetables; and getting practical, context-sensitive mentorship whether through visits from experienced trainers, peer coaching, or well-structured professional development sessions.

7.8 Acceptability of the Framework / On field validation

Following its pilot in Maharashtra, the project has expanded to a national scale, demonstrating both the feasibility and widespread acceptability of the Competency-Based Learning (CBL) framework. One key indicator of this broader uptake is the Central Board of Secondary Education (CBSE) officially publishing the framework and related materials on its website. By making these resources accessible across the country, CBSE has facilitated a standardized approach to CBL, allowing schools and teachers nationwide to reference and integrate the methodology into their regular teaching routines.

In addition, the project's collaboration with central government schools such as Kendriya Vidyalayas and Navodaya Vidyalayas, highlights its scalability. These institutions, known for maintaining consistent quality standards, have begun implementing the CBL framework. The training of teachers has evolved from simply introducing CBL concepts to enabling educators to create their own competency-based lesson plans and assessment tools. This teacher empowerment ensures that the approach is not just imposed from above but is actively adopted and adapted from within the educational ecosystem.

The national rollout has also been supported by ongoing funding from new organizations, building on the foundation set by HDFC's initial support. This financial backing further validates the framework's credibility, as stakeholders beyond the initial collaborators are willing to invest in its long-term success. Across multiple states, teachers are now shifting their instruction from rote methods to more dynamic, application-oriented strategies. Their willingness to embrace these methods along with positive feedback from students who find lessons more meaningful and relatable, attests to the framework's acceptance and practicality on a broader scale.

To maintain effectiveness and adaptability across diverse contexts, the implementation partner highlighted the following **monitoring and evaluation strategies:**

1. **Expert Validation**: The framework and its components underwent review by multiple expert panels, which included representatives from the Australian Council for Educational Research (ACER), State Councils of Educational Research and Training (SCERT), and the Ministry of Education. The implementation partner relied on ACER's global experience—especially its role in developing the initial PISA tests—to ensure that India's CBL approach aligned with international competency standards.

2. **Collaboration with State-Level Bodies:** Since education in India is predominantly managed at the state level, the implementation partner worked closely with SCERT units, particularly SCERT Pune during the Maharashtra pilot. By mapping the existing state curriculum to the competency-based framework, the partner aimed to preserve local cultural and linguistic nuances. This collaboration provided a template for other states to follow, enabling region-specific adaptations while retaining the core competencies mandated at the national level.

3. **Teacher Training and Capacity Building**: Teacher capacity remained central to the rollout's success. The implementation partner emphasized extensive teacher training programs, including five-day workshops in central government schools such as Kendriya Vidyalayas and Navodaya Vidyalayas. Rather than merely distributing ready-made lesson plans, the goal was to equip teachers to design their own CBL materials, thereby creating a sustainable model in which educators themselves become drivers of innovation and quality assurance in the classroom.

4. **Pilot Feedback and Iterative Refinement**: The implementation partner conducted pilot programs in select districts and schools to gather feedback on how well the materials and lesson plans worked in practice. Insights from these trials led to iterative improvements, ensuring that the framework remained feasible and relevant for educators and students. By testing on a smaller scale first, the partner could refine resources before expanding them nationally.

5. **Long-Term Indicators (PISA & Employability):** According to the COO, while there are short-term indicators—such as increased student engagement, teacher adaptability, and more interactive classroom practices—the ultimate markers of success will emerge through improved performance in international assessments like PISA and enhanced employability of graduates. The partner acknowledged that systemic educational change occurs gradually and that it may take 10–15 years to observe substantial national-level transformations.

6. **Ongoing Research and Support**: The implementation partner maintains collaborations with governmental and non-governmental research entities. These collaborations involve systematic studies of how CBL is performing in different socio-economic and linguistic contexts. Regular school visits, structured evaluations, and continuous teacher feedback loops all contribute to a dynamic monitoring process. Adjustments are made as necessary, informed by empirical data and classroom experiences.

Insights from the Pilot Phase: Teacher Perspectives on CBL Implementation

As part of the impact assessment, interviews were conducted with teachers who participated in the classroom demonstrations held in selected government schools in Pune during the pilot phase of the project. This timeframe primarily coincided with the curriculum development phase and the pilot to test the implementation of the Competency-Based Learning (CBL) approach in classroom settings. The pilot involved one to three classroom demonstrations per school, which aimed to evaluate the feasibility of the instructional approach and introduce teachers to the concept of CBL.

At this stage of the project, teacher training sessions had not yet commenced, and essential instructional materials such as CBL lesson plans, evaluative tests, and teacher handbooks had been distributed in a staggered manner. Consequently, the impact on teachers was understandably limited, and their responses during the assessment may have been slightly influenced by social desirability bias.

Figure 2: Enumerator administering a Key Informant Interview with a Headmaster

8. Demographic Profile of Teachers

The demographic profile of teachers surveyed under the **Competency Based Learning** project provides a clear and concise understanding of the primary beneficiaries.

The gender composition of the respondents reflects a relatively balanced representation, with females slightly outnumbering males. Females constitute 55% of the total respondents, while males account for the remaining 45%.

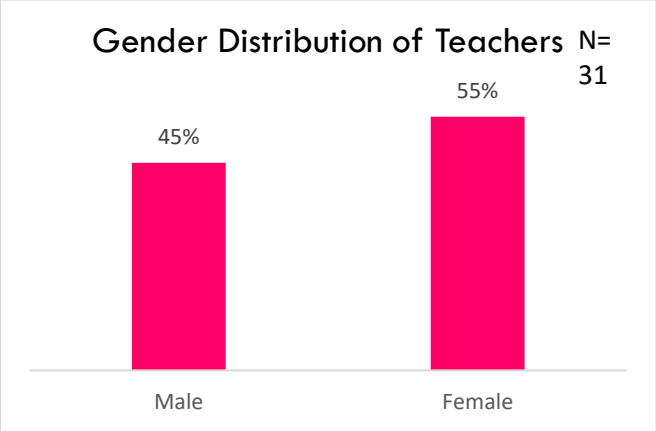


Figure 3: Gender Distribution of Teachers

The religious makeup of the respondents is diverse, though it is dominated by Hindus, who represent 68% of the total population. Muslims form the second-largest group, comprising 16% of the respondents, followed by Buddhists/Neo-Buddhists at 13%. Christians make up a smaller proportion, representing just 3% of the surveyed individuals.

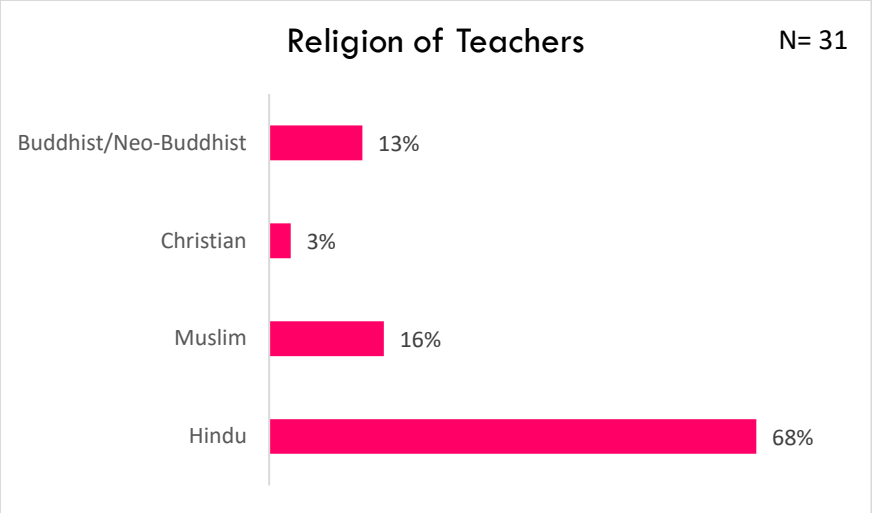


Figure 4: Religious distribution of Teachers

The age profile of the respondents reveals that a significant portion of the population falls within the older age brackets, with 58% of respondents aged between 50 and 60 years. This is followed by 26% in the 30–40 age range and 16% in the 40–50 age bracket.

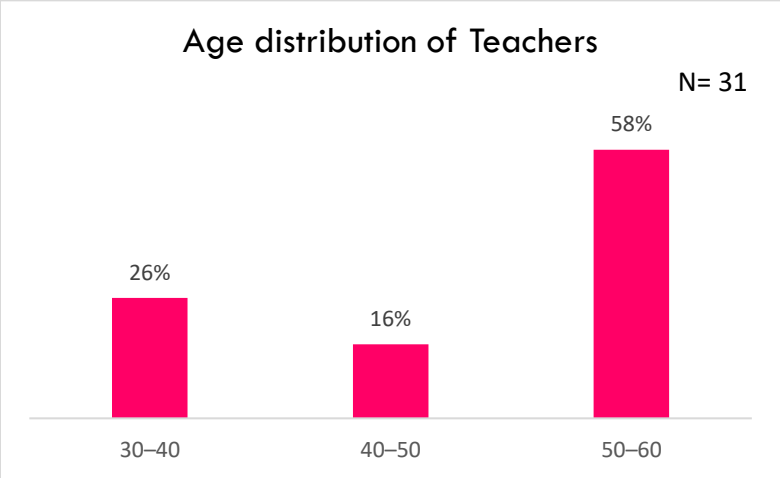


Figure 5: Age distribution of Teachers

The **educational profile** of survey Teachers reveals a highly educated population, with a substantial majority holding advanced degrees. Among the respondents, 71% are postgraduates, indicating a high level of academic achievement and specialization. Additionally, 29% of the respondents are graduates, reflecting a foundational level of higher education that further complements the overall educational makeup of survey respondents.

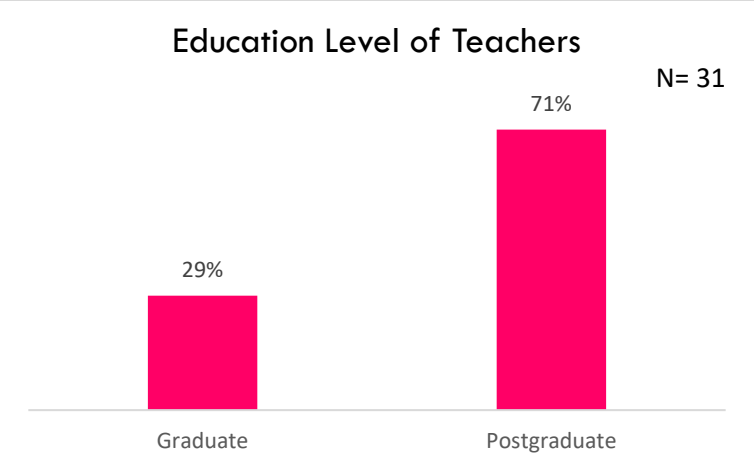


Figure 6: Educational background of Teachers

The data highlights the diversity in **teaching experience and tenure among educators**. Regarding overall teaching experience, 42% of respondents have been in the profession for 21–30 years, while 29% have 11–20 years of experience. Additionally, 19% have served for 31–40 years, and 10% are relatively newer, with 0–10 years of teaching experience.

In terms of tenure at their current school, 61% of respondents have been employed for 0–10 years, showing a notable level of mobility. Meanwhile, 23% have served for 21–30 years, 13% for 11–20 years, and only 3% for over 31–40 years. This distribution indicates that while many teachers bring decades of professional expertise, their time at individual schools tends to be shorter, potentially reflecting transitions across institutions for professional or personal reasons.

9. Key Findings

9.1 Relevance

9.1.1 Key Components Covered During CBL Trainings

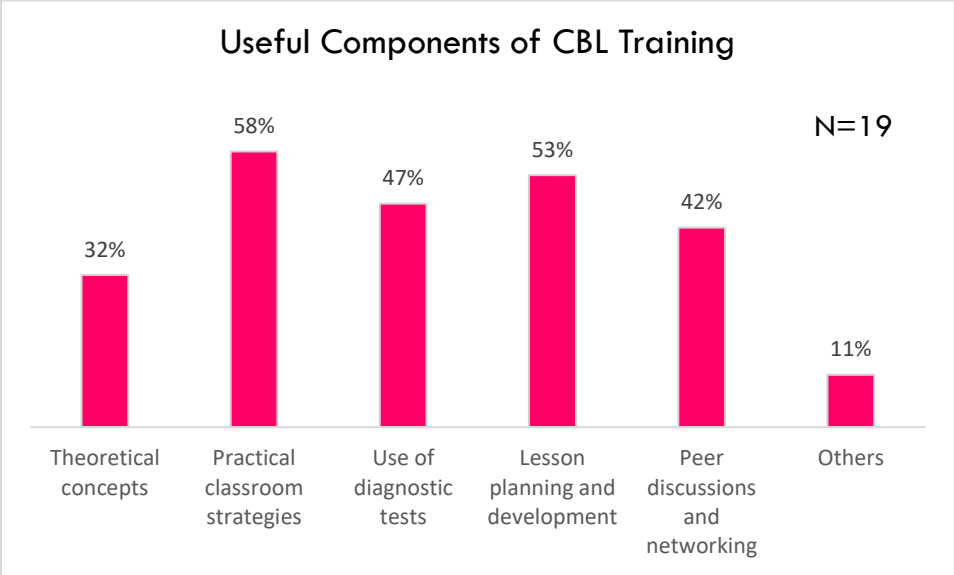


Figure 7: Components of the CBL training found useful by teachers

The graph highlights the aspects of Competency-Based Learning (CBL) training that were most useful to teachers, providing valuable insights into the effectiveness of the program. A total of 19 teachers responded to this question, with many identifying multiple aspects they found beneficial.

The most frequently cited aspect was **Practical Classroom Strategies**, with 58% of teachers finding this component of the training useful. This indicates a strong preference for hands-on, actionable methods that can be directly applied in the classroom. Closely following this was **Lesson Planning and Development**, appreciated by 53% of the respondents. These findings suggest that teachers value structured guidance in designing and delivering lessons that align with competency-based objectives.

Use of Diagnostic Tests was identified as useful by 47% of the teachers, highlighting the importance of tools that help assess student performance and identify learning gaps. Similarly, **Peer Discussions and Networking** were seen as beneficial by 42% of respondents. This points to the value of collaborative learning and opportunities for sharing best practices among teachers. **Theoretical Concepts** were found useful by 32% of the respondents, indicating that while foundational knowledge is appreciated, it may not resonate as strongly as the practical and collaborative aspects of the training. A smaller proportion, 11%, mentioned "Others" as useful aspects, which could include unique or unforeseen elements of the training. The data emphasizes the importance of flexibility in training design to accommodate varied teacher needs.

9.1.2 Time Allocation Patterns in Lesson Planning and Preparation

The data on weekly lesson planning highlights diverse preparation approaches among teachers, with some potentially investing additional time to align lessons with Competency-Based Learning (CBL) principles. Notably, the demands of CBL may require additional effort and innovation, suggesting that some teachers might be dedicating time to align their lessons with CBL principles, which emphasize practical, real-world applications of knowledge and skills.

A majority, 42%, dedicate two hours weekly, balancing efficiency with sufficient detail. Meanwhile, 26% streamline their planning to just one hour, likely leveraging routine methods or established familiarity with subjects.

On the other end, 19% invest five hours, and 6% spend ten hours weekly, suggesting detailed preparation for interactive or complex sessions. A smaller portion, 3% each, dedicate three or fifteen hours, likely for specialized projects or advanced topics.

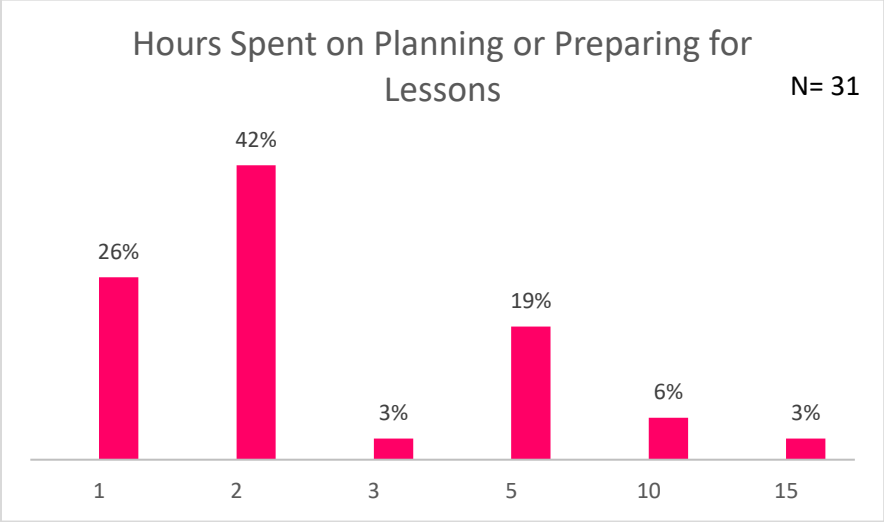


Figure 8: Time spent by teachers on Lesson planning

9.1.3 Relevance of the Project to Teaching Practices

The relevance of the project to teaching practices received a positive evaluation from the surveyed teachers. A significant majority, 61%, consider the project to be very relevant, highlighting its alignment with their professional needs and its potential to enhance educational outcomes.

An additional 19% rated it as moderately relevant, indicating that while the project aligns with their teaching requirements, there may be areas requiring further refinement or adaptation. Conversely, 16% found the

project slightly relevant, and only 3% deemed it extremely relevant, suggesting room for improvement in contextualizing the project's objectives to meet the diverse needs of all educators.

These insights indicate a strong foundational acceptance of the project, with opportunities to further tailor its implementation for broader and more profound impact across varying teaching contexts.

Figure 9: Semi-Structured Interview being administered on a teacher

Teachers also shared **examples** illustrating how incorporating Competency-Based Learning (CBL) into their classrooms has enhanced their teaching practices:

- **Geometry via Real-Life Contexts**
  Rather than having students memorize definitions of angles, one teacher introduced geometry concepts by referencing everyday objects like a TV screen or window frame. A teacher explained how students *"related it to the class...the angles of the TV or the windows*". This practical application helped learners grasp the concept of angles more concretely. By the end of the lesson, they asked deeper questions and began viewing mathematics as relevant to their surroundings. Such a shift from rote memorization to hands-on problem-solving underscores how CBL can immediately enrich everyday teaching.

- **Magnets and Storytelling**
  In science lessons, certain educators began with anecdotes or short "origin stories" about magnet discovery before opening the textbook. One teacher recalled, *"Students don't expect directly the chapter to start. They want to know some more facts and stories"* By narrating how someone climbing a hill discovered the magnetic property of certain rocks, teachers drew students into the lesson. This storytelling approach illustrated how CBL allows educators to anchor theoretical concepts in familiar narratives, helping students connect new information to something memorable and concrete.

- **Group Work for Diverse Learners**
  Another teacher grouped students by ability level—combining high achievers, middle learners, and those who struggled—to tackle lessons together. They described it as *"Make groups and divide the portion into small parts...if they are not able to understand any topic, we explain them again".* This strategy aligns with CBL's emphasis on applying knowledge collaboratively and helped balance the teacher's workload in addressing fundamental misconceptions. Students learned from one another, which not only reinforced the subject matter but also cultivated peer support and communication skills.

- **Short, Engaging Activities for Time Management**
  Several teachers found ways to incorporate concise activities, like a quick anecdote or a brief demonstration, into their schedules without overshadowing core lessons. One mentioned, *"If we say any kind of stories related to the topic, then they would take interest...and they will understand it well",* underscoring how bite-sized CBL activities can energize a lesson without derailing curriculum coverage. By weaving in these small but meaningful tasks, teachers managed to blend engagement with the obligations of a set syllabus.

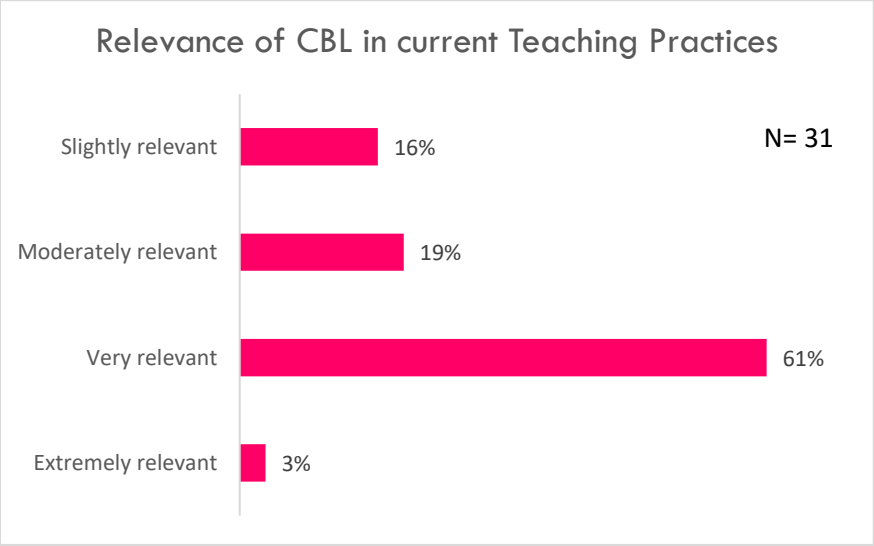


Figure 10: Relevance of CBL in current Teaching Practices

9.2 Coherence

9.2.1 Support Received for the Intervention from Local/Community/Government

The data provides valuable insights into the levels of support they have received for the intervention from local, community, and government sources. According to the responses, only 3% (N=31) of the teachers reported receiving significant support. This relatively small figure underscores the rarity of robust backing from external stakeholders. On the other hand, 32% of the teachers indicated that they received some support, representing the second-largest group of respondents. When combined with those who received significant support, this amounts to 35% overall, suggesting that over one-third of respondents benefit from a noticeable level of community or governmental assistance.

A further 16% of teachers stated that they received limited support, bringing the cumulative percentage of any form of support, whether significant, some, or limited to 52%.

Meanwhile, the largest group, comprising 48% of teachers, reported receiving no support at all from local, community, or government sources. This figure highlights the critical gap faced by nearly half of the stakeholders involved in the intervention, , indicating the need for enhanced partnerships and more robust engagement with local, community, and governmental entities to reinforce the long-term impact and sustainability of the project.

9.2.2 Alignment of the Intervention with Existing Policies and Systems

The assessment of how well the intervention aligns with existing policies and systems reveals mixed perceptions among participants. A significant 48% of respondents indicated that the intervention is aligned with current structures, while an additional 6% rated it as very well aligned, suggesting that over half of the respondents (54%) see a positive fit between the intervention and established frameworks.

However, 29% remained neutral, neither affirming nor rejecting its alignment. This could indicate limited familiarity with policies or uncertainty regarding the intervention's fit. Meanwhile, 13% found the intervention poorly aligned, and 3% considered it not aligned at all, highlighting potential areas where the intervention might conflict with existing systems or fail to address policy requirements.

These findings suggest that while the intervention is largely compatible with current systems, targeted adjustments and stakeholder engagement may be necessary to address perceived misalignments and enhance its integration.

To improve the effectiveness of the Competency-Based Learning (CBL) project, engaging stakeholders and ensuring alignment with existing structures are critical. A few targeted strategies can significantly enhance stakeholder involvement and the project's integration into the educational system.

Engaging policymakers through targeted meetings and collaborative forums is essential. Regular consultations with education officials and policymakers can ensure that the project's objectives align with broader educational policies and strategies. These meetings should focus on demonstrating the benefits of CBL, using data and case studies to highlight improvements in student outcomes such as critical thinking and

problem-solving skills. Advocacy efforts can emphasize the importance of embedding CBL principles into formal curricula and assessment frameworks, thereby institutionalizing the approach within the education system.

Improving the alignment of the CBL framework with existing school structures and schedules is another important consideration. Schools often struggle to integrate new initiatives into their already packed academic calendars. To address this, the CBL framework should be refined to fit seamlessly into current teaching schedules and curriculum requirements. This can be achieved by aligning CBL activities with national or state educational standards, making them an integral part of the regular teaching process rather than an additional burden on teachers. Developing streamlined lesson plans and templates that incorporate CBL methods can also help teachers manage their time more effectively while maintaining consistency in implementation.

Community engagement can be strengthened by organizing stakeholder-specific outreach initiatives. For instance, workshops for parents and community leaders can showcase the value of CBL in preparing students for future challenges, encouraging them to support the project actively. Schools can also host open days where parents and community members observe CBL activities in action, fostering a deeper understanding and investment in the program's success. Involving local businesses, NGOs, and community organizations in supporting schools with resources and expertise can further enhance the initiative's reach and impact.

To align better with teachers' needs and ensure their active participation, creating teacher feedback forums is crucial. These forums can serve as platforms for teachers to share their experiences, challenges, and suggestions for improvement. Incorporating this feedback into the project's design and implementation will not only improve alignment but also foster a sense of ownership among educators. Additionally, involving teachers in the adaptation and localization of CBL methodologies will ensure the project remains relevant and practical for their unique classroom contexts.

Finally, collaboration with academic institutions and education research organizations can refine and enhance the CBL framework. By leveraging the expertise of these institutions, the project can adopt evidence-based best practices and innovative approaches to improve its impact. Joint research initiatives can also provide robust data on the project's outcomes, further strengthening its credibility and appeal to stakeholders.

By focusing on targeted engagement with policymakers, refining the CBL framework to fit existing structures, and fostering collaboration among stakeholders, the project can achieve greater alignment and support. These efforts will not only improve the project's effectiveness but also ensure its sustainability and scalability in the long term.

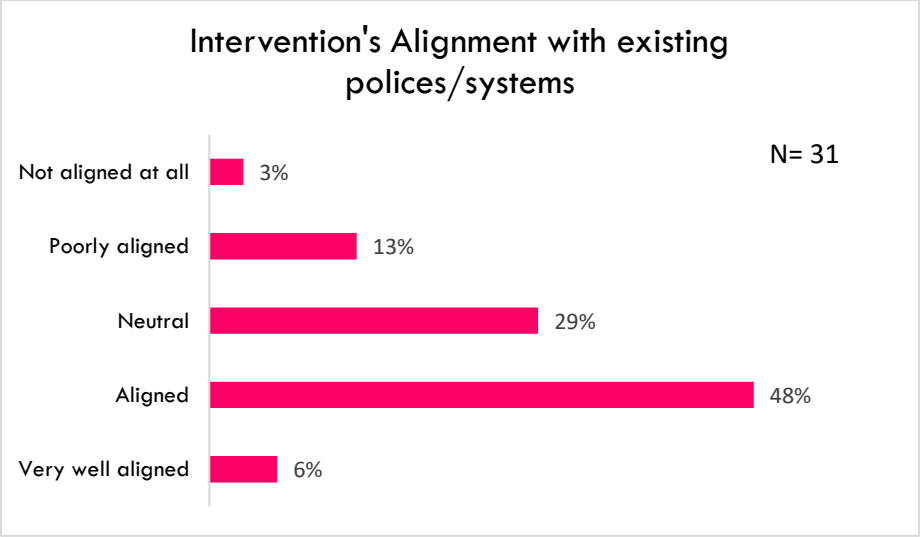


Figure 11: Alignment of the intervention with existing policies and systems

9.3 Effectiveness

9.3.1 Effectiveness of Competency-Based Learning (CBL) Training Sessions

The effectiveness of the training sessions for implementing CBL varied across respondents. A significant 36% of participants (8 teachers) found the sessions comprehensive and effective, reporting that they provided adequate strategies for implementation. Another 23% (5 teachers) felt that while the sessions covered key concepts, additional support was required to fully implement the methodologies in their classrooms.

For 23% of teachers (5 participants), the sessions provided only basic information, with a noted need for more practical inputs to enhance applicability. Meanwhile, 5% (1 teacher) described the training as offering only a general overview and requiring supplementary material, while another 5% (1 teacher) reported that the training did not address practical classroom challenges.

Interestingly, 9% of respondents (2 teachers) chose "Other" to describe their experience, suggesting unique or context-specific perspectives on the training.

These findings highlight a varied reception to the training sessions, with a significant portion recognizing their value but also indicating areas for improvement, particularly in providing practical, classroom-oriented support.

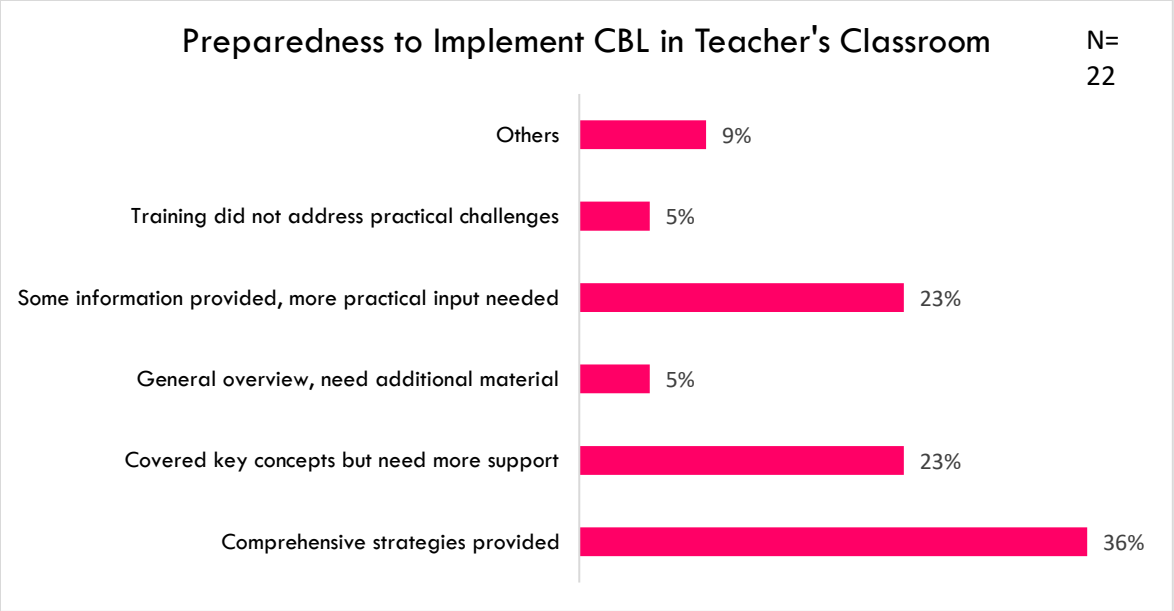


Figure 12: Teachers' preparedness for CBL implementation

9.3.2 Effectiveness of CBL Resource material

The assessment of how effective teachers find the CBL (Competency-Based Learning) materials and resources reveals a range of perspectives. This material includes CBL based tests, periodic diagnostic tests, CBL aligned lesson plans, etc. A notable **42%** of respondents rated them as **"very effective and aligned,"** indicating that nearly half see the materials fitting seamlessly into stheir teaching practices.

Meanwhile, **13%** found the resources **"useful for specific subjects but requiring support,"** suggesting that while the materials are beneficial, these educators need additional guidance or resources to maximize effectiveness. Another **10%** indicated that the materials **"often require additional adaptations,"** pointing to possible gaps that may need further customization to address diverse classroom contexts.

However, **16%** of respondents reported that the CBL materials **"do not align well with teaching needs,"** highlighting a segment of teachers who may find the content less applicable or require more significant modifications. Additionally, **19%** of participants selected others, which suggests a variety of nuanced experiences or concerns that fall outside the predefined response options.

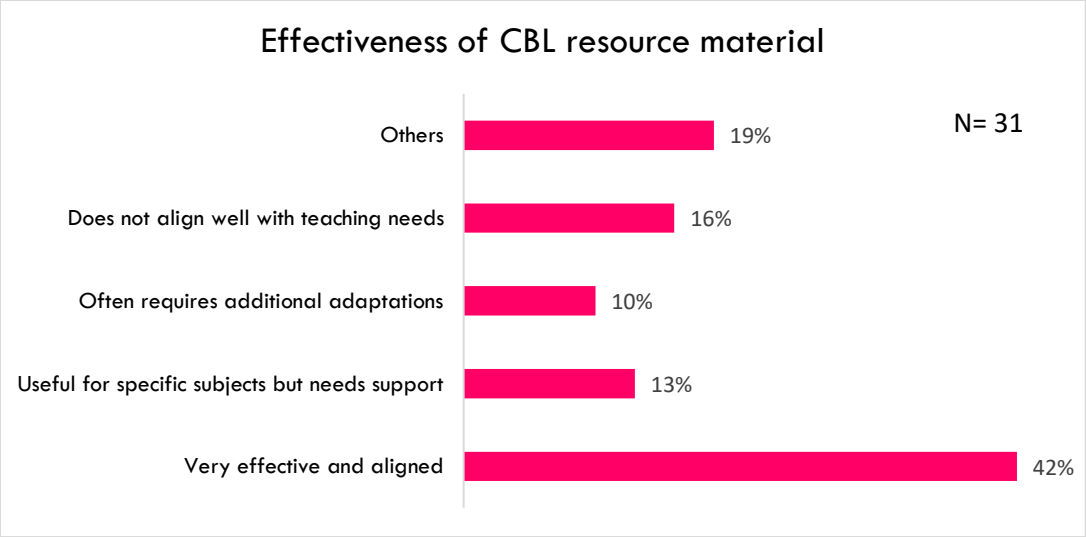


Figure 13: Effectiveness of CBL Materials and resources

9.3.3 Evaluation of the Project's Effectiveness

The project was generally rated positively in terms of its overall effectiveness in achieving its goals. A majority of respondents, 55%, found the project to be effective, indicating its ability to address key objectives and meet expectations within the teaching context. Additionally, 16% considered the project moderately effective, suggesting partial success and highlighting areas where improvement could enhance outcomes.

While 19% of respondents found the project slightly effective, indicating that the benefits were limited or less impactful, only a small portion rated it as highly effective (6%). A minimal 3% believed the project was not effective at all, signifying rare instances of misalignment with their expectations or needs.

This range of responses underscores the project's substantial success while pointing to specific areas for refinement to enhance its impact and effectiveness in the future.

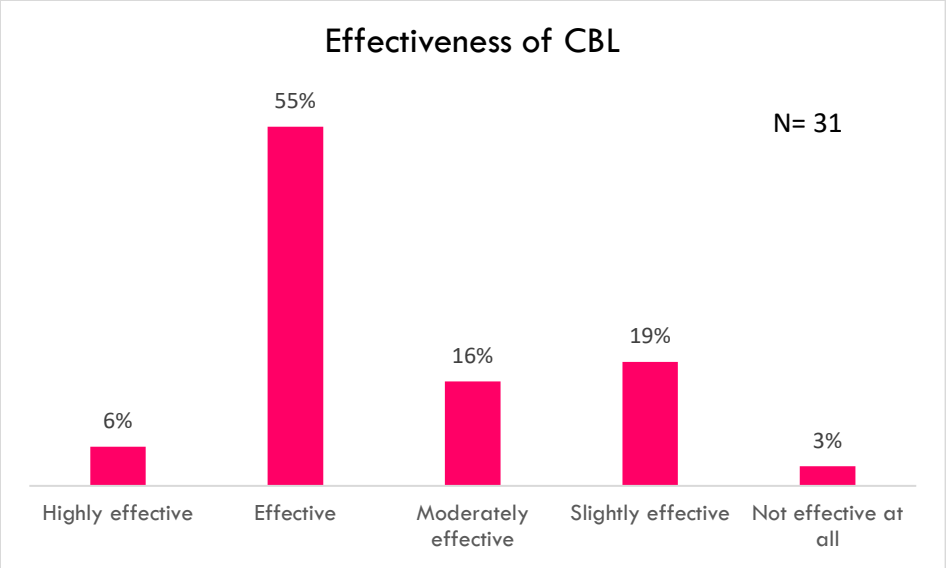


Figure 14: Effectiveness of CBL

To improve the effectiveness of the Competency-Based Learning (CBL) project, several strategic adjustments can be considered based on insights from the qualitative interviews with Headmasters and Education Officers.

A key area for improvement is the teacher training program. Training sessions should be redesigned into modular, focused formats that address specific aspects of CBL implementation. These sessions should include practical exercises aligned with classroom challenges, ensuring that teachers are not only equipped with theoretical knowledge but also confident in applying CBL methods. Additionally, continuous professional development programs need to be established, offering regular updates and opportunities for teachers to refine their skills. Trainers, too, must be thoroughly prepared to deliver impactful training that reflects the realities of the classroom.

Providing relevant and updated resources tailored to each school's unique requirements is another crucial step. Conducting a comprehensive needs assessment for every school can guide the provision of practical tools such as subject-specific teaching aids, kits for science experiments, or visual tools for mathematics. Ensuring equitable access to technology, such as smart TVs and projectors, can also bridge the disparity in learning environments across schools and enhance the overall learning experience.

The design and implementation of the project must be more aligned with the specific contexts of individual schools. Resources and interventions should be delivered on time to ensure smooth execution and foster trust among stakeholders. Materials provided should address identified gaps rather than duplicating existing resources, as outdated lesson notes have been noted as ineffective. Involving teachers in the development and adaptation of CBL methodologies can foster a sense of ownership and ensure that these methods are practical, relevant, and locally adapted to meet the needs of their students.

Establishing robust feedback and monitoring systems will significantly enhance the project's effectiveness. Regular feedback loops between schools and implementing agencies can help identify challenges early and implement solutions swiftly. Tools such as progress trackers, rubrics, and digital assessment methods should be provided to teachers to enable effective monitoring of student outcomes. A long-term evaluation framework that tracks the impact of CBL on critical thinking, problem-solving, and other key skills can further validate the program's effectiveness and guide continuous improvements.

Engaging the community and parents in the project is another impactful strategy. Schools can collaborate with local organizations and parents to secure small-scale support for teaching materials or training sessions. Community involvement not only fosters ownership but also builds broader support for the program. Hosting events to showcase student achievements can validate the program's impact, inspire stakeholders, and generate enthusiasm for its continuation. Partnerships with academic institutions and NGOs can bring in additional resources and expertise to ensure the project remains innovative and adaptable.

Policy and administrative support must also be strengthened to integrate CBL more effectively into the educational framework. Collaborating with education boards to formalize CBL principles within the curriculum and assessment processes can ensure its longevity and consistency. Aligning policies with the core goals of CBL would institutionalize its practices and make them a regular part of teaching and learning.

Time management is a common challenge faced by teachers when integrating CBL activities into their schedules. To address this, pre-designed lesson plans and templates should be provided, reducing the planning burden while ensuring consistent implementation of CBL techniques. Activities should also be better integrated with existing curriculum goals to make them manageable within standard teaching schedules.

Finally, recognizing and rewarding schools and educators excelling in CBL implementation can drive motivation and sustained effort. Certifications, awards, and career advancement opportunities for teachers, along with competitions and projects for students that reward critical thinking and creativity, can further energize the program. These recognitions not only celebrate success but also set benchmarks for others to emulate.

9.4 Efficiency

9.4.1 Teacher Participation in Competency-Based Learning (CBL) Training

The data reveals that 71% of teachers attended at least one Competency-Based Learning (CBL) training session, representing a majority of the surveyed group (22 out of 31 respondents). Conversely, 29% (9 teachers) did not participate in any training, indicating room for increased engagement.

Among those who attended training, participation levels varied significantly. A combined 72% of respondents attended either one or two training sessions in the previous academic year, with 36% (8 teachers) in each category. Additionally, 14% (3 teachers) attended three training sessions, while 5% (1 teacher each) reported attending either five or eight sessions. Interestingly, 5% (1 teacher) who had previously attended CBL training reported no training sessions in the last academic year, which could reflect prior training experiences or reporting gaps.

This distribution underscores the varying degrees of exposure to CBL among teachers and suggests a need for more consistent and widespread training opportunities to strengthen familiarity and competency in implementing this educational methodology.

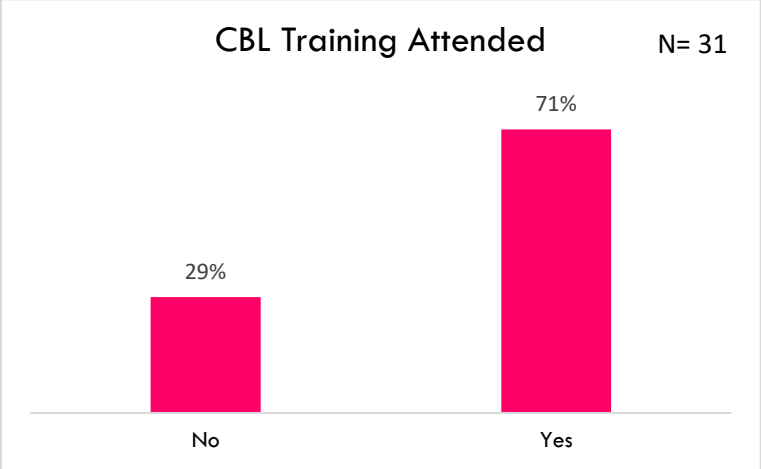


Figure 15: Teachers' Attendance at CBL Trainings

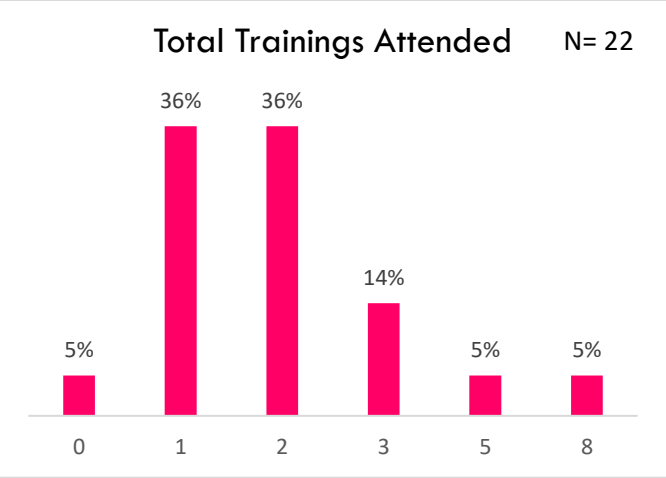


Figure 16: Total number of trainings attended by Teachers

9.5 Impact

9.5.1 Impact of CBL Training on Teaching Practices

The timeframe covered by the impact assessment primarily coincided with the curriculum development phase and a pilot to test the implementation of the Competency-Based Learning (CBL) approach in classroom settings. The pilot consisted mainly of one to three classroom demonstrations in selected government schools.

These demonstrations were intended to evaluate the feasibility of the instructional approach and familiarize teachers with the concept of CBL. At this stage of the project, teacher training sessions had not yet commenced, and essential instructional materials, such as CBL lesson plans, evaluative tests, and teacher handbooks, had not been distributed.

Given these circumstances, it is reasonable to expect that the impact on teachers would be quite limited. Additionally, their responses during the assessment may have been slightly influenced by social desirability bias.

The influence of Competency-Based Learning (CBL) training on teaching practices varied among respondents. A majority, 68%, indicated that the training moderately impacted their teaching methods, reflecting a shift in practices, though not a complete transformation.

In contrast, 23% reported that the training had minimal influence on their teaching approach, suggesting challenges in adapting the provided strategies to their classroom environments. Meanwhile, 9% stated that the training significantly influenced their practices, indicating a notable shift in their teaching methodology.

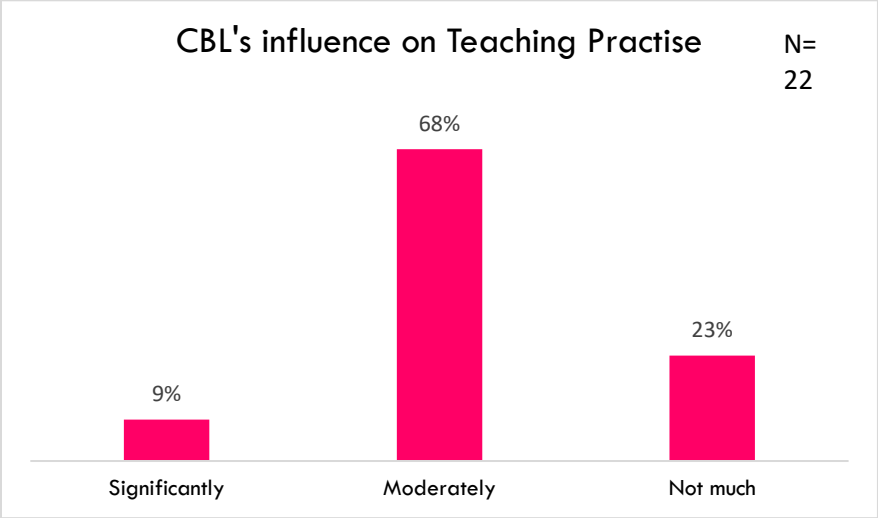


Figure 17: CBL's influence on Teaching practices

9.5.2 Quality of the CBL Training sessions

The overall quality of the project training was perceived favorably by participants. A combined 51% of respondents rated the training as either excellent (6%) or good (45%), reflecting its effectiveness in delivering relevant content and strategies. However, 32% rated the quality as average, suggesting room for improvement, particularly in terms of content depth or delivery methods. A smaller proportion, 16%, found the training to be below average (10%) or poor (6%), indicating that certain areas of the training may have failed to meet specific expectations or needs.

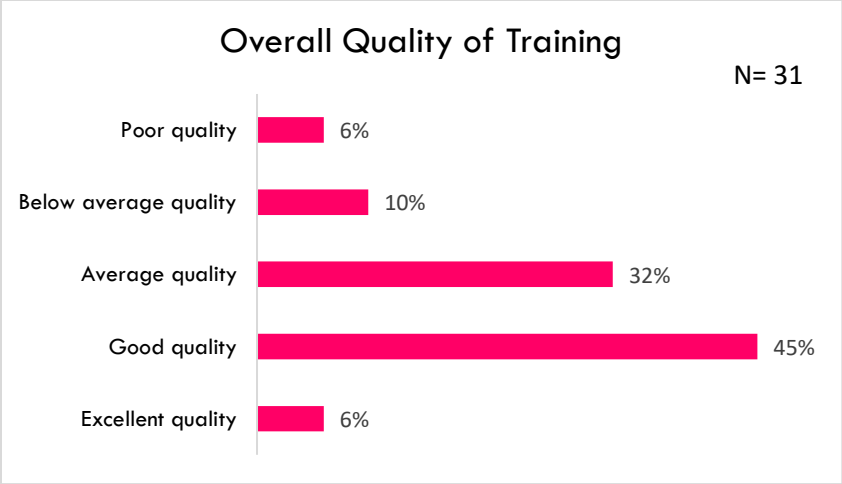


Figure 18: Quality of the CBL Trainings

9.5.3 Ease of Integrating CBL into Teaching Practices

The integration of Competency-Based Learning (CBL) into existing teaching practices revealed a mix of experiences among respondents. A substantial 42% found the process easy, indicating that these teachers likely had the necessary resources, training, or prior familiarity with CBL methods.

In contrast, 35% described the integration as challenging, reflecting potential difficulties in adapting to the methodology or aligning it with their existing classroom routines. Meanwhile, 23% expressed a neutral stance, suggesting a moderate experience where neither significant ease nor substantial difficulty was encountered.

These findings highlight the varying levels of readiness and adaptability among educators, pointing to the need for more tailored support to address the specific challenges faced by those finding the transition difficult.

One recurring challenge involved the lack of structured training. Many teachers depended on informal guidance or brief demonstrations and struggled to shift away from rote practices without a clear, step-by-step framework, suggesting a reliance on ad hoc methods rather than systematic professional development.

Time management pressures further complicated matters. CBL strategies such as storytelling, group projects, and continuous assessment required more classroom hours, while teachers felt compelled to complete their prescribed syllabi, reflecting the tension between adhering to standard curriculum requirements and delivering interactive lessons.

Resource constraints also surfaced frequently. Some teachers had to rely on personal funds or improvised materials, noting the absence of official supplies. Another teacher observed that *"we didn't get any support from outside...It also needs financial support without that it won't work"*. In instances where kits were distributed, teachers often lacked sufficient training to integrate them effectively.

Gaps in foundational knowledge posed an additional obstacle. Students promoted through rote-based instruction often arrived in class without a solid grounding in basic concepts, forcing educators to re-teach fundamentals before moving on to more advanced, application-based lessons. One teacher asked, *"If the student has not clear basics, then what would be the use of teaching them advanced?",* emphasizing that foundational deficits slowed CBL's implementation.

Teachers also found it difficult to transition from the familiarity of lecture-driven methods toward student-centered explorations. This shift involved a significant mindset change and such a transition required consistent support and an openness to letting students guide their own learning.

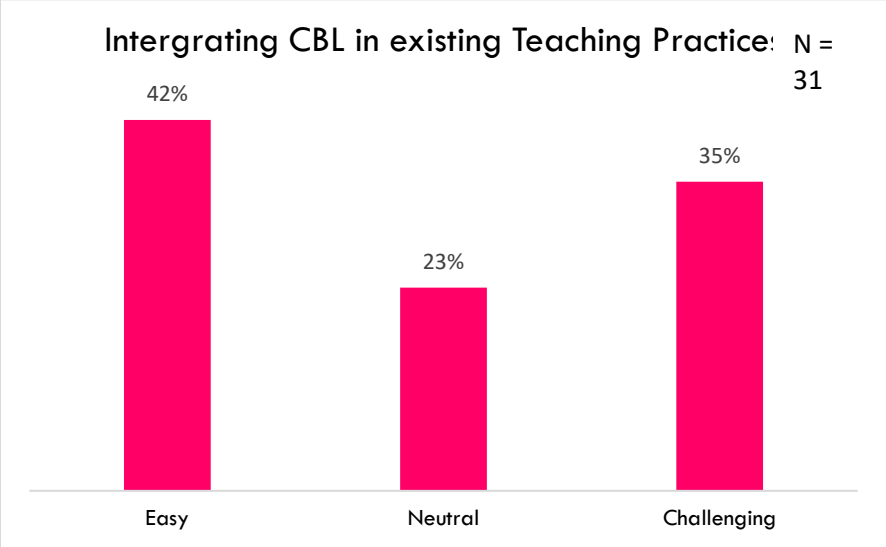


Figure 19: Integration of CBL into existing teaching practices

9.5.4 Short Term

In the short term, several positive shifts became evident following the implementation of Competency-Based Learning (CBL) strategies. Teachers, having participated in training sessions and classroom demonstrations, gained a clearer understanding of what CBL entails. Instead of relying solely on rote methods, they began to introduce activities and lessons that required students to apply concepts rather than merely memorize them.

As shared by the Implementing partners, this instructional shift led to noticeably higher student engagement. When lessons were contextualized with real-life applications, such as using everyday scenarios to understand algebraic expressions or geometric principles, students showed greater curiosity and enthusiasm. They asked more questions and participated more actively in class discussions.

Another noteworthy short-term change was in the classroom environment itself. Students felt more comfortable sharing their thoughts and experiences, even when addressing sensitive topics like adolescence and puberty. This openness and confidence reflected a classroom culture increasingly centered on understanding, inquiry, and collaboration rather than passive absorption of information.

Teachers consistently reported as derived from qualitative insights collected via the semi structured interviews, that previously disengaged or shy students became active participants during lessons. One teacher remarked how "*the students who used to sit at the back bench... also started supporting and paying attention in the class and they started to dare to come in front and answer".* This shift was particularly notable in mathematics and science classes, where hands-on demonstrations replaced traditional lectures.

Several educators pointed to improved confidence and willingness to tackle new concepts. One stated that earlier, *"they used to fear whether the answer would be correct or not," but "now they at least try and give the answer".* This suggests that the CBL environment, which emphasizes understanding over rote memorization, helps students feel safer to attempt answers, even if they might be mistaken.

Teachers also noted that students viewed learning more like a 'game' rather than a high-stakes test. One educator explained how using cards or interactive resources to teach math *"didn't feel like it is a test... they felt like this is a game being played".* Such an environment reportedly helped reduce test anxiety, encouraging learners to engage more deeply with the material.

Several mentioned short formative assessments, like quick questions or group-based tasks, enabling immediate feedback loops. In one example, a teacher described calling students to the blackboard to attempt problems, then clarifying misconceptions on the spot. This practice ensured that *"if they are not able to understand any topic, we explain them again".* These repeated, low-stakes opportunities to check for comprehension further boosted students' sense of accountability and willingness to learn.

Collectively, these anecdotes and observations align with the short-term positive outcomes teachers associated with the CBL approach: higher participation rates, greater confidence in answering questions, and a sense of enjoyment in learning that stands in contrast to the often-static nature of rote instruction.

Figure 20: Semi-Structured Interview being administered on a teacher trained under the CBL Project

9.5.5 Long Term Impact

Over the long term, the project aims to catalyze systemic changes that extend beyond isolated classrooms and individual lessons. One key objective is to improve performance in international assessments like PISA, reflecting a stronger grounding in competencies rather than rote memorization. Over time, this shift is expected to contribute to enhanced educational quality at a systemic level.

Additionally, the project envisions a future where graduates enter higher education and the job market equipped with stronger problem-solving skills, critical thinking abilities, and greater employability. By focusing on application-oriented learning rather than mere content recall, students are expected to develop the capabilities that make them more adaptable and valuable in real-world scenarios. While these transformations will likely take a decade or more to fully materialize, the objective is clear: create a generation of learners who can engage thoughtfully with challenges, innovate effectively, and contribute meaningfully to both society and the economy.

9.6 Sustainability

9.6.1 Sustainability of CBL Approach in Teaching Context

The survey responses reflect varied opinions regarding the sustainability of the Competency-Based Learning (CBL) approach within teaching contexts. A majority, 58%, perceive the approach as sustainable, suggesting confidence in its adaptability and potential to be consistently integrated into existing educational frameworks.

Approximately 29% view the approach as moderately sustainable, indicating a recognition of its potential but possibly with reservations about resource availability, teacher preparedness, or long-term applicability. Meanwhile, 10% rated it as slightly sustainable, and only 3% considered it highly sustainable, pointing to the need for further support, training, and resource alignment to enhance its practical feasibility and long-term impact.

These findings underscore the importance of addressing specific barriers to fully realize the sustainable integration of CBL into diverse educational settings.

Qualitative insights (derived from the semi structured interview conducted with teachers) suggest that teachers overwhelmingly, point towards limited resources as a critical barrier. While some receive kits or materials, others do not, and even when supplies are available, there is often no corresponding training on their proper use. Without consistent access to projectors, subject-specific materials, or updated lesson packs, it becomes difficult for educators to maintain the hands-on, application-oriented components of CBL.

They also stress the importance of ongoing professional development. Many rely on informal mentorship or partial guidance, yet sustainable CBL implementation requires frequent and comprehensive training sessions. Teachers express a need for structured follow-up, progressive training modules, and clear guidelines on lesson planning and assessment.

Time constraints further complicate matters, as teachers must reconcile interactive activities with the demands of covering the prescribed syllabus. According to the teachers, unless scheduling and curriculum requirements are adjusted, or teachers receive support in managing class hours, CBL may remain a sporadic addition rather than an integral part of regular teaching.

Mindset and foundational gaps also pose challenges. Weak conceptual grounding in students can stall advanced CBL tasks, and overcoming deeply ingrained rote-learning practices among both educators and learners demands ongoing support. These factors collectively underscore the significance of reliable resources, continuous professional development, adequate time allocation, and supportive institutional or policy-level measures for ensuring the long-term sustainability of CBL.

In order to address these challenges, teachers provided **potential strategies** for increasing the sustainability of Competency-Based Learning:

One important step involves **systematic and ongoing professional development**. Teachers suggest that frequent, structured training sessions would reduce reliance on ad hoc guidance. They recommend workshops that address lesson planning, use of materials, and methods for continuous assessment. Such support would help educators feel more prepared and confident in adapting their routines to a more hands-on, student-centered approach.

Another key strategy centers on **time management and curriculum alignment**. Educators emphasize the need to integrate shorter, targeted activities into the existing syllabus, rather than adding lengthy projects that compete with regular lessons. This might include brief story-based intros, quick group tasks, or targeted formative assessments. By keeping activities manageable and aligned with standard curriculum requirements, CBL practices become more feasible in everyday classroom settings.

Teachers also highlight the value of **adequate resources and consistent material support**. While some received kits or instructional tools, others had to improvise. Ensuring a reliable flow of lesson materials, multimedia aids, and classroom kits would allow teachers to plan and execute interactive lessons without continually procuring resources on their own. Coupled with teacher training on how to use these materials effectively, a stable resource pipeline can greatly enhance CBL's longevity.

Finally, educators recommend **reinforcing foundational skills** in tandem with CBL activities, so that students who struggle with basic concepts do not become overwhelmed. Integrating short remediation segments or quick reviews before advanced tasks helps maintain engagement and prevents gaps in learning. This responsiveness to diverse student needs—along with a readiness to shift from rote methods—fosters a more robust and sustainable CBL environment over the long term.

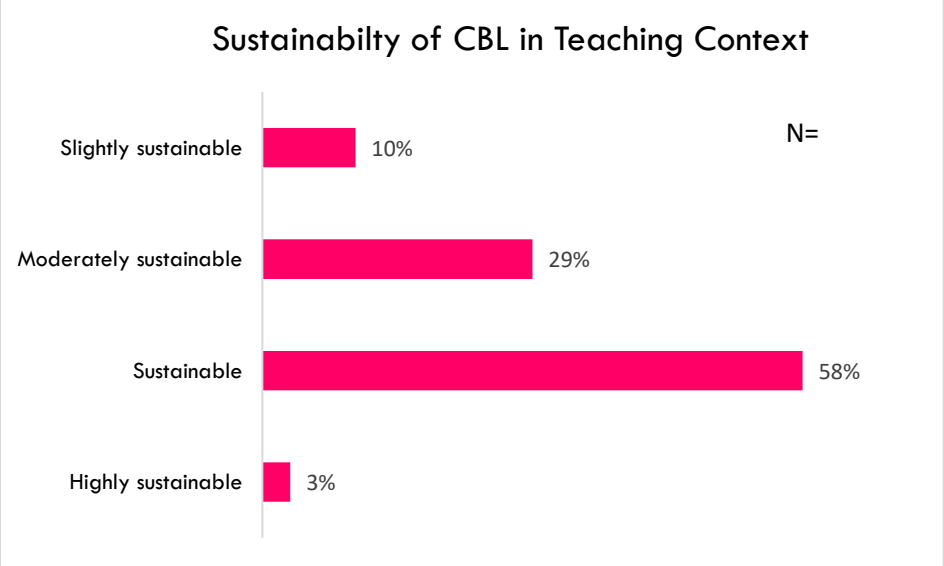


Figure 21: Sustainability of CBL in Teaching Context

9.6.2 Perceptions of Project Sustainability

The participants provided varied opinions regarding the sustainability of the project's activities and impact. A majority, 55%, considered the project to be sustainable, with an additional 6% rating it as highly sustainable. This demonstrates confidence among over half of the respondents (61%) in the project's potential for long-term impact and continued relevance.

Meanwhile, 26% rated the project as moderately sustainable, indicating that while they recognize its potential, some factors may still require strengthening to ensure its durability. On the other hand, 13% perceived the project as only slightly sustainable, suggesting concerns about the project's ability to maintain its benefits or activities over time.

These responses highlight the need to address factors influencing long-term viability to reinforce sustainability and build on the project's positive reception among stakeholders.

Figure 22: Sustainability of CBL

The sustainability of the Competency-Based Learning (CBL) project is influenced by several critical factors, as highlighted in the qualitative interviews conducted with Headmasters and Education Officers. One significant factor is the provision of regular and effective teacher training. The interviews highlighted the inadequacy of initial training sessions and the absence of follow-up training during the Pilot. The importance of modular, smaller, and more practical training sessions was stressed to ensure that teachers are well-prepared to adopt and sustain CBL methodologies. This continuous capacity building is seen as essential for maintaining the momentum of the project and enabling educators to implement its principles independently over time.

To ensure the sustainability of the Competency-Based Learning (CBL) initiative, several key strategies should be considered. A long-term funding strategy is essential for maintaining the program's impact. This can be achieved by diversifying funding sources beyond reliance on government grants or specific CSR contributions like those from HDFC. Collaborating with multiple stakeholders, including local businesses, NGOs, and international grant organizations, will provide a steady financial base. Engaging community organizations and parents can also help secure small-scale support for teaching materials or training sessions. These efforts would enhance the financial resilience of the program.

Policy and administrative support also play a vital role in shaping perceptions of sustainability. As highlighted in the interviews, integrating CBL into the broader educational framework through government policies and education board initiatives could enhance its longevity. Institutionalizing CBL practices within the education system would reduce dependency on external agencies, providing a more stable foundation for the methodology to thrive.

Teacher training emerged as a critical aspect in the interviews. Many teachers highlighted the need for more practical and modular training sessions tailored to their specific classroom contexts. Establishing a system of continuous professional development, where training is divided into smaller, focused modules, will improve retention and application of CBL techniques. Furthermore, involving teachers in project planning can create a sense of ownership, motivating them to invest more effort in the program. Teachers can contribute to customizing methodologies, suggesting practical teaching aids, and even adapting the curriculum to suit their students' needs.

Alignment with local needs emerged as another crucial factor. Headmasters and Education Officers consistently pointed out that the project's success depends on how well it addresses the unique challenges and requirements of individual schools. One headmaster remarked, *"In the project, they should ask about the requirements of the school and provide us with what we truly need. Lesson notes are not enough; we need practical tools and resources"*. Providing non contextual materials or support, diminishes engagement and reduces the impact of the initiative. Tailoring interventions to meet specific school or regional needs fosters ownership and encourages long-term adherence to CBL practices.

Adequate resources are another area requiring attention. While some classrooms are equipped with projectors and smart TVs, others lack such infrastructure, creating disparities in the learning environment. Ensuring universal access to digital tools and enhancing teaching kits with subject-specific materials will strengthen the implementation of CBL. These kits could include practical tools for science experiments or visual aids for mathematical concepts, aligning with the activity-based learning approach emphasized by the teachers.

Feedback and monitoring mechanisms are also critical for ensuring sustainability. The interviews revealed the absence of regular feedback loops and monitoring systems, which hindered the ability to identify and address challenges in implementation. As one headmaster observed, *"No feedback was received regarding the CBL project from the implementing agency. Without feedback, it's difficult to highlight successes or make improvement"*. Establishing these mechanisms would enable schools to adapt the project to their evolving needs, ensuring its relevance and effectiveness over time.

Monitoring and evaluation mechanisms should also be enhanced. Teachers need tools to regularly assess student progress and adapt teaching methods accordingly. Rubrics, progress trackers, and even digital assessments could provide insights into the program's effectiveness. Additionally, a framework for tracking the long-term impact of CBL on student outcomes such as critical thinking and problem-solving skills would demonstrate its value to stakeholders.

Lastly, cultural and attitudinal shifts among educators significantly influence sustainability. The interviews underscored the importance of creating a learning environment that aligns with CBL principles, such as fostering self-reliance and critical thinking among students. A headmistress explained, *"We need to create an environment where students would like to learn. If that environment is created, students themselves feel they need to be educated"*. However, consistent reinforcement of these practices through training and support is needed to effectively embed them into the school culture.

Collaboration with the community and educational institutions can further sustain the initiative. Organizing events to showcase student projects not only validates the program's effectiveness but also garners

community support. Partnerships with academic institutions and NGOs can bring in expertise and additional resources, ensuring the program remains innovative and relevant.

Time management and curriculum alignment are also critical to sustainability. Teachers often struggle to integrate CBL activities within their already packed schedules. Providing pre-designed lesson plans and templates can ease this burden while ensuring consistent implementation. Additionally, advocating for CBL to be formally integrated into the broader educational framework will institutionalize its principles, making them part of the regular teaching process.

The sustainability of the CBL project depends on a combination of regular training, policy support, alignment with school-specific needs, feedback systems, and cultural acceptance. Fostering a collaborative environment where teachers, students, and stakeholders are engaged in decision-making will drive the program forward. Recognizing schools and teachers excelling in CBL implementation through certifications or awards can serve as motivation for sustained effort. By addressing these areas comprehensively, the CBL program can be transformed into a sustainable model of modern education.

Figure 23: Semi-Structure Interview being administered on a Teacher

9.6.3 Confidence in Implementation

In terms of confidence in applying the learnings from the training, a majority (**52%**) of respondents/teachers felt **confident**, and an additional **10%** expressed **very high confidence**. This indicates a generally positive outlook on the practical application of the training content. However, **23%** reported feeling **moderately confident**, and **16%** felt only **slightly confident**, suggesting that some participants may require further support or follow-up resources to effectively implement the learnings.

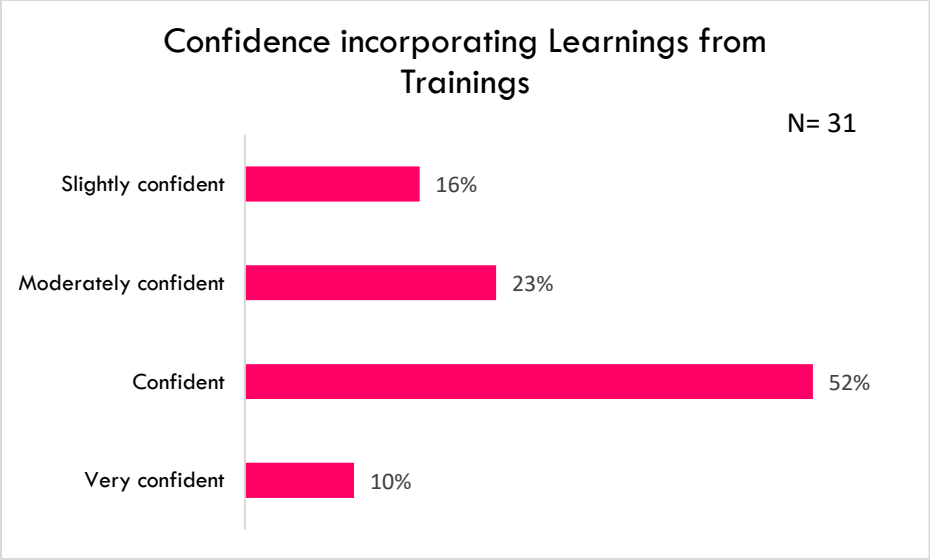


Figure 24: Confidence of teachers in implementing learnings from training

10. Strengths and Challenges

10.1 Strengths

1. **Focus on Real-World Applications**

One of the key strengths of the CBL framework is its emphasis on real-world applications of knowledge. By shifting the focus from rote memorization to critical thinking and problem-solving, the framework ensures that students can relate their learning to practical scenarios. For example, teachers used storytelling to introduce concepts, such as using real-life examples to explain angles in geometry or narrating the discovery of magnets to spark curiosity in science. These methods not only make lessons more engaging but also foster deeper understanding and retention among students.

2. **Improved Student Engagement**

Teachers consistently reported higher levels of student participation and curiosity when implementing CBL strategies. Activities such as group projects, hands-on demonstrations, and storytelling created an interactive classroom environment where students felt encouraged to contribute. One teacher remarked, "The students who used to sit at the back bench also started supporting and paying attention in the class." This inclusivity is a testament to how CBL can transform passive learners into active participants.

3. Support for Collaborative Learning

The framework encourages group-based learning, which allows students to work collaboratively, share knowledge, and learn from one another. This approach is particularly effective for addressing diverse learning needs, as high achievers and slower learners can support each other. Teachers noted that dividing lessons into smaller tasks and assigning group activities helped students grasp concepts more effectively. This collaborative approach also fosters communication, teamwork, and problem-solving skills, which are essential for success in real-world situations.

4. Emphasis on Foundational Skills

CBL's structure ensures that foundational skills are consistently reinforced, allowing students to build a strong base before tackling more complex topics. Teachers highlighted how reviewing basics helped bridge learning gaps, particularly for students who had been promoted through rote-based systems. One educator emphasized, "If the student doesn't have clear basics, then what is the use of teaching them advanced concepts?" This focus on foundational learning is crucial for creating long-term educational impacts.

5. Dynamic Assessment Methods

The use of frequent, low-stakes assessments is another significant strength of the framework. Informal questioning, short quizzes, and practical demonstrations provide real-time feedback on student comprehension. Teachers appreciated these methods, as they allowed for immediate intervention and clarification of misunderstandings. This dynamic approach to assessment ensures that learning is continuous and responsive, rather than limited to end-of-term examinations.

6. Teacher Empowerment

CBL prioritizes teacher capacity-building by equipping educators with innovative tools and methodologies. Training programs focused on practical classroom strategies, lesson planning, and diagnostic assessments have empowered teachers to move beyond traditional teaching methods. One teacher shared how they gained confidence through workshops and demonstrations, enabling them to experiment with new approaches in their classrooms. This empowerment fosters a sense of ownership and adaptability among educators.

7. Alignment with Educational Policies

The CBL framework aligns closely with the National Education Policy (NEP) 2020, which emphasizes competency-based, student-centered learning. This alignment strengthens the framework's relevance and facilitates integration into the broader educational ecosystem. By focusing on competencies rather than content, the framework addresses long-standing gaps in India's education system and prepares students for global assessments such as PISA.

8. Scalability and Adaptability

The framework's design allows for localization and adaptation to different regional and cultural contexts. For example, during the pilot phase in Maharashtra, lesson plans and resources were tailored to align with state textbooks and languages. This adaptability ensures that CBL can be implemented across diverse educational settings, making it scalable at the national level. Additionally, the framework encourages teachers to create their own lesson plans and assessments, further promoting flexibility and innovation.

9. Enhanced Classroom Environment

CBL fosters a collaborative and inclusive classroom environment where students feel comfortable sharing their thoughts and ideas. Teachers observed a noticeable increase in student confidence and willingness to participate in discussions. One educator noted that students now "try and give the answer," even if they are unsure, reflecting the supportive and encouraging atmosphere created by CBL.

10. Focus on Lifelong Learning

By emphasizing competencies such as critical thinking, collaboration, and problem-solving, the CBL framework prepares students not just for academic success but also for life beyond the classroom. The framework instills skills that are transferable to higher education, the workforce, and everyday decision-making, ensuring that students are equipped to navigate an evolving world.

Figure 25: Key Informant Interview being administered with a Head Maste

10.2 Challenges

During the development and pilot phases of the Competency-Based Learning (CBL) framework, various challenges surfaced that influenced both the design and delivery of this new approach. These challenges ranged from conceptual misunderstandings of "competencies" to practical issues of resources, training, and entrenched teaching habits. The following sections compile and synthesize the key obstacles encountered, interwoven with direct insights from the teachers themselves.

1. Defining and Aligning Competencies

One of the earliest hurdles was establishing a clear, shared understanding of what "competencies" meant within the Indian educational context. Although external experts, such as ACER, provided global best practices, aligning these with the National Curriculum Framework and existing textbooks required significant adaptation. Project teams needed to ensure that the competencies were not only theoretically sound but also

feasible to implement in everyday classrooms. This process entailed extensive review, iteration, and validation to reconcile global models with national standards and local realities.

2. Shifts in Teacher Mindset

Moving from traditional, lecture-based approaches to more interactive, application-oriented instruction proved to be a major transition for many educators. Accustomed to rote learning methods and concerned about established exam patterns, teachers were wary of stepping outside their comfort zones. This apprehension was fueled by uncertainty over whether they possessed the necessary skills or time to implement new teaching strategies effectively. To alleviate these concerns, the project team organized workshops, demonstrations, and classroom-based interventions. Gradually, teachers who experimented with CBL began to see its benefits for student engagement and learning outcomes.

A teacher Illustrated this mindset shift by noting:

"In the old techniques, teachers would teach, and they were not always aware of whether students understood. But with the new CBL technique, the goal is for even the last student to understand."

This sentiment underscores how CBL seeks deeper learning for all students, rather than covering content quickly without fully assessing comprehension.

3. Limited Formal Training and Guidance

A prominent challenge from the teachers' perspective was the lack of structured training. Many relied on sporadic orientations or informal tips from mentors rather than official CBL modules. They reported feeling unprepared to structure daily lessons, sequence content, or design competency-based assessments. This gap in formal guidance hindered their ability to move beyond rote practices and fully embrace a student-centered, inquiry-driven teaching style.

4. Time Management and Curriculum Constraints

Interactive activities such as storytelling, group work, and hands-on exercises demanded more class time than didactic lectures. Teachers felt pressured to complete the syllabus within the standard timetable, leaving little flexibility for extended discussions or practical demonstrations. One educator explained:

"CBL takes a lot of time—it's not possible to implement CBL lectures every time. If we have regular lectures, we cannot always incorporate CBL."

Balancing syllabus coverage with more thorough, competency-based lessons became a persistent tension. As a result, teachers often resorted to integrating smaller, focused activities—like brief anecdotes or quick group tasks—so they could reconcile the demands of CBL with regular curriculum pacing.

5. Resource and Infrastructure Gaps

Resource scarcity emerged in multiple forms, from inadequate access to physical materials and digital tools to insufficient training on how to use available resources effectively. Classrooms equipped with projectors, science kits, or supportive materials found it easier to experiment with CBL, while those lacking these assets struggled to implement the method consistently. Such disparities led to uneven experiences across different schools. Some educators had to rely on personal initiative or intermittent external support, highlighting the need for more equitable and systematic resource distribution.

6. Foundational Knowledge Deficits

Teachers often discovered that students promoted under a memory-based system did not possess the foundational skills necessary for advanced or project-oriented tasks. As one teacher put it:

"If a student doesn't have clear basics, then what is the point of teaching advanced concepts? So we focus on clearing their basics first."

This realization required educators to build in mini-remedial lessons to reinforce fundamentals before moving on to more complex CBL activities. Constantly revisiting earlier concepts and assessing students' readiness added another layer of complexity to lesson planning and delivery.

7. Entrenched Teaching Habits and Cultural Emphasis

A deeply rooted "lecture culture," where the teacher's role is viewed as the transmitter of knowledge, further complicated the shift to a dialogic and exploratory learning environment. Both teachers and students had to adjust their expectations, transitioning from passive information transfer to active participation and critical thinking. This transformation demanded sustained support, follow-up training, and a willingness to adopt more interactive approaches.

8. Scaling and Local Adaptation

Finally, as the framework moved beyond initial pilots to wider rollouts, each state's unique textbooks, language policies, and educational structures created additional obstacles. At the national level, building awareness of CBL concepts took time. While some stakeholders welcomed the initiative, others lacked the foundational knowledge to contribute meaningfully. Sustaining adoption required significant teacher training, resource development, and ongoing support, ensuring that CBL was not perceived as a one-off experiment but rather as a viable, integrated approach to teaching and learning.

11. Key Learnings and Way Forward

1. Clear, Sequential Lesson Plans

Teachers found it easier to adopt the Competency-Based Learning (CBL) framework when provided with clear, step-by-step lesson plans. These plans were particularly effective when they started with relatable anecdotes or real-life applications that connected theoretical concepts to students' daily lives. For instance, one teacher shared how using a story about the discovery of magnets before introducing the topic helped spark curiosity and engagement among students. Such strategies ensure that lessons are both meaningful and memorable, fostering better understanding and retention.

2. Reinforcing Foundational Skills

Many teachers observed that gaps in students' foundational knowledge hindered their ability to engage with advanced competencies. This feedback highlighted the importance of integrating remedial strategies within the CBL framework to address these gaps systematically. As one teacher aptly put it, "If the student doesn't have clear basics, then what is the use of teaching them advanced concepts?" Strengthening foundational skills ensures that students can actively participate in advanced learning tasks and reduces the need for constant reteaching.

3. Group-Based Learning

Group-based learning emerged as a highly effective strategy for fostering collaboration and addressing diverse learning needs. Teachers found that dividing lessons into smaller tasks and encouraging peer interactions allowed slower learners to catch up while high achievers consolidated their understanding. One teacher explained, "Make groups and divide the portion into small parts so the students can understand the topic. If they don't, we explain it again." This collaborative approach not only enhanced comprehension but also fostered teamwork and peer support among students.

4. Frequent, Low-Stakes Assessments

Informal, low-stakes assessments such as short quizzes, practical demonstrations, or quick questioning sessions were highly effective in monitoring student progress. These assessments provided teachers with real-time insights into student comprehension and allowed for immediate intervention. As one teacher noted, "We ask questions to check if students understand the lesson. If not, we clarify immediately." Embedding such assessments into the CBL framework ensures consistent accountability and supports incremental learning.

5. Ongoing, Modular Teacher Training

Teachers emphasized the need for structured and ongoing training sessions tailored to their specific challenges. While initial workshops introduced CBL concepts, educators expressed a desire for more modular, hands-on training that focuses on lesson planning, resource usage, and addressing diverse classroom contexts. Regular follow-ups and professional development opportunities were identified as essential for sustaining the transition from rote methods to competency-based practices.

6. Equitable Resource Availability

Resource availability emerged as a critical factor in the successful implementation of CBL. While some schools had access to teaching kits, projectors, and multimedia tools, others struggled with limited materials. Ensuring consistent and equitable distribution of resources, coupled with training on their effective use, is vital for scaling CBL. One teacher emphasized, "We need proper materials and guidance on when and how to use them for the best results." Providing practical tools and ensuring their accessibility will significantly enhance classroom implementation.

7. Integration with Curriculum and Time Management

Aligning CBL activities with the existing curriculum and addressing time management challenges are essential for successful integration. Teachers often struggled to balance the demands of completing the syllabus with incorporating interactive CBL methods. Pre-designed templates and strategies, such as brief storytelling or targeted group tasks, can help teachers integrate CBL into their schedules without compromising syllabus coverage.

8. Community Engagement and Institutional Support

Engaging parents, local leaders, and school management is crucial for fostering wider acceptance of CBL. Organizing workshops and open days where stakeholders can observe CBL in action helps build support for the program. Partnerships with NGOs and academic institutions can also bring additional expertise and resources, further enhancing the program's reach and sustainability.

9. Sustainability and Policy Alignment

Embedding CBL principles into educational policies and institutional frameworks is vital for ensuring its long-term impact. Advocacy efforts should focus on aligning CBL with national and state curriculum goals, enabling systemic integration. Additionally, fostering a culture of innovation and continuous improvement within schools will contribute to the program's sustainability.

10. Focus on Local Contexts

Tailoring interventions to regional needs enhances their relevance and effectiveness. Providing context-specific materials and flexible solutions ensures that CBL can be adapted to meet the unique challenges of individual schools. Teachers and administrators should be actively involved in customizing CBL methodologies to foster ownership and accountability within their local contexts.