

Schools and education since March 2020

Schools in India have been closed from March 2020. Children have had no face-to-face interactions with teachers or peers since then. In the past one-and-a-half years, various models of online education have been tried out. Studies conducted to estimate the efficacy of these models revealed the vast inequities and divides in access to technology and the internet and the gross inadequacy of online mediums in imparting any true learning. (UNICEF, 2020, Azim Premji University, *Myths of Online Education*, 2020). Practitioners and parents across the country have raised concerns over the limitations of online medium in providing personalised attention to children's academic and socio-emotional needs, which, in turn, form the basis for any meaningful learning. It comes as no surprise to us that the majority of school-going children have not only not had any significant learning, but they have also been engulfed in the scenario of 'learning loss,' or 'academic regression', which as we understand it, is the phenomenon of forgetting previously learned concepts.

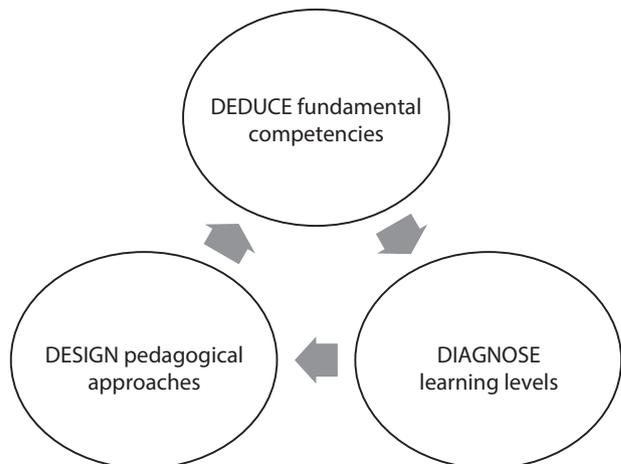
In the study, *Loss of Learning During the Pandemic*, conducted by the Azim Premji Foundation with 16,067 students across India, it was found that, '92% of children on an average have lost at least one specific language ability from the previous year across classes. Illustratively, these specific abilities include describing a picture or their experiences orally; reading familiar words; reading with comprehension; writing simple sentences based on a picture. 82% of children on an average have lost at least one specific mathematical ability from the previous year across all classes illustratively, these specific abilities include identifying single- and two-digit numbers; performing arithmetic operations; using basic arithmetic operations for solving problems; describing 2D/3D shapes; reading and drawing inferences from data.' (p 4, *Loss of Learning during the Pandemic*, Azim Premji University, 2020)

In such a situation, educators need to be cognisant of the current learning levels of students. It is quite likely that students who are currently in class V may not be at grade-appropriate level due to the phenomenon of learning loss described above. As schools gear up to reopen there are some critical questions that confront us, such as, how do we decide what to teach? How do we align our teaching-learning processes to the current learning levels of students? What sort of diagnostic assessment approaches should we adopt to understand student learning levels? How should the syllabus be reorganised and transacted in a multi-level classroom with diverse learner needs? In this article, using a diagnostic assessment model, we attempt to answer these important questions that the entire education community is grappling with.

Diagnostic assessment model of teaching-learning

This model suggests three clear steps of approaching the questions confronting schools and educators.

Diagnostic assessment model



Step1: Deducing the fundamental competencies for each stage. These competencies need to be progressively organised in a learning ladder to help teachers address multi-level learners in their classrooms.

Step 2: Diagnosing the learning levels of students' basic and fundamental competencies on the learning ladder. Such diagnostic assessments should be done using a variety of methods and contexts.

Step 3: Designing pedagogical approaches that are in sync with the outcomes of the diagnostic assessments. These should form the basis of differentiated instructions tailored to individual students/groups of students in the classroom.

Step 1: Deduce fundamental competencies

The most pressing question we can think of once schools reopen is: what exactly should be transacted in the classroom? Suppose you are the class teacher of class V, teaching all the subjects. The last time you saw your students was when they were in class III. You spent 18 months teaching them in online and some offline modes. Once they come back to school what should you start with? Let us take another scenario, suppose you are a

primary school teacher in a government school, and you had children from classes I to V in your class. You conducted some community/*mohalla* classes with them in the last 18 months and now they are all back to school. How do you begin engaging with this multi-grade class? Let us take a third example: suppose you were the mathematics teacher of class IV. The last time you engaged with your students was when they were in class II, and you taught them how to count or how to add two-digit numbers. What should you teach them now – should it be multiplication?

Where to begin?

It is necessary to turn to learning outcomes, or competencies, to decide what to teach. Due to the present situation of learning loss, a teacher may not be sure of exactly which level or class textbook, syllabus and learning outcomes to use as a reference point. In such circumstances, a teacher may need a well-organised set of fundamental competencies that are foundational and core for every class across all school subjects. These competencies can be used to begin teaching.

Sample of fundamental competencies

Domain	Level 1 Competencies - mapped to class I & II syllabus	Level 2 Competencies - mapped to class III & IV syllabus	Level 3 Competencies - mapped to class V syllabus
Reading skills	<p>1.1 Can recognise the letter of the alphabet- both in form and sound. हिंदी के वर्णमाला के अक्षरों की आकृति और ध्वनि को पहचानते हैं</p> <p>1.2 Can read the names of familiar objects commonly found in the textbooks. जानी पहचानी वस्तुओं के नाम पहचान और पढ़ पते हैं (जो किताबों में अक्सर होते हैं, जैसे आम, अनार, खरगोश, कबूतर।)</p>	<p>2.1 Can read short sentences, stories and poems. छोटे वाक्यों, कहानियों, और कविताओं को पढ़ पाते हैं।</p> <p>2.2 Enjoys reading a variety of textual materials based on their interest and ability, such as pictures, posters, unfamiliar stories, poems, etc. अपने स्तर और पसंद के अनुसार तरह-तरह की रचनाओं/सामग्री- कहानी, कविता, चित्र, पोस्टर, आदि को आनंद के साथ पढ़ते हैं।</p>	<p>3.1 Can read and comprehend textual materials beyond those suggested in the textbook, such as newspapers, hoardings, etc. अपनी पाठ्यपुस्तक से इतर सामग्री (अखबार, बाल पत्रिका, होर्डिंग्स आदि) को समझ कर पढ़ते हैं</p>

Some principles to identify fundamental competencies:

- They should be the most basic, or foundational, ideas in a subject, for example, counting in mathematics, reading in language, etc.
- They should form the stepping-stones for acquiring other competencies in higher classes. For example, unless a child can count, she may not be able to develop a number sense. Similarly, unless a child is able to identify words, she will not be able to read full sentences.
- Since we are talking about a learning ladder of fundamental competencies, it is also necessary that the competencies are graded. These levels could be as per the class-level outcomes for example, Level 1 could be aligned with classes I and II competencies, while a Level 2 could be aligned with classes III and IV competencies and so on.
- Clubbing grade-level competencies is necessary since students' learning may not correspond exactly with the competencies of any one class. For example, a child of, say, class IV, may be at level 1 in one domain in a given subject and at level 2 in another.
- The competencies should also suggest a progression in complexity across classes. This will help the teacher address multilevel learners in a given class.

The sample on the previous page presents the fundamental competencies progressing from classes I to V for reading skills content domain. Similar lists can be generated for all content domains in school subjects.

Step 2: Diagnose learning levels

As suggested in the previous section, learning levels among children in the same class are likely to vary considerably and will be lower than expected for their class level when they return to school. Teachers must know the learning levels of the students in their classrooms to bring children back on track. In such a scenario, diagnostic assessments aligned to the fundamental competencies to identify the learning gaps and used to adapt classroom practices to children's learning levels will be helpful.

In general, diagnostic assessments are conducted at the beginning of the learning process to gauge what students know and are able to do in

order to help teachers guide and plan classroom instructions for a topic. At present, the scenario is complex – teachers are expected to diagnose students' learning levels against a large number of competencies of the previous classes. The learning ladder would be a very helpful tool here to assess students' learning levels against the important prerequisite competencies to take the current curriculum forward. This approach will help teachers to fill in learning gaps and build the scaffolding necessary into the current curriculum, instead of trying to transact all the knowledge and skills a student may have missed in the previous classes.

Each student and each class is different and it varies from state to state, district to district and village to village because the quality of interventions that they have received during the school closure has been very different. Some state governments have initiated community-based learning programmes right from the beginning of the lockdown and closure of schools, while online education was imparted in some schools. Though the efficacy of online education and these learning programmes is uncertain, a teacher will have a fair sense of the kind of intervention her students received during the school closure. Based on this understanding, a teacher will be able to design appropriate diagnostic assessment tools and plan classroom instructions for all the students in her class. Teacher autonomy in designing and using assessment is essential for ensuring a teaching-learning environment that addresses the diverse needs of children.

Diagnostic assessments should be planned and designed for different content domains, such as oral expression, reading skills, reading comprehension, and writing skills in the languages; and numbers, measurement, patterns, and data-handling in mathematics. The worksheet should contain a variety of assessment methods, which include oral questions, select-response questions, essay-type questions, projects, and activities, all of which enable the measurement of students' learning level for a content domain through their performance. It is important to include a child-specific note sheet in the assessment to record individual students' learning gaps and misconceptions. A teacher will be able to capture valid observations about students' learning only if the assessment items are well-aligned to the fundamental competencies with respect to the cognitive skills a child needs to

attain for a content domain. Also, the progression in the assessment items is important to diagnose students' learning levels.

We are reproducing here a sample diagnostic assessment worksheet for Hindi reading skills that can be used for classes IV and V. Here, if a child is able to circle similar words, then he/ she is at

Level 1 and if they are able to associate words with pictures and show interest in reading familiar/ unfamiliar text, they are at Level 2. If the children are able to read various texts (newspaper, children's magazines, hoardings etc.), they are at Level 3. Similar assessment worksheets can be devised for other subjects.

Level 1
<p>1.1 Can recognise the letter of the alphabet- both in form and sound. हिंदी के वर्णमाला के अक्षरों की आकृति और ध्वनि को पहचानते हैं</p>
<p>शिक्षक बच्चों को कविता लयपूर्वक पढ़कर सुनाएंगे और फिर कविता में म और ल पर गोला लगाने के लिए कहेंगे।</p> <p>मुर्गी माँ घर से निकली झोला ले बाज़ार चली चूज़े बोले चेंचें-चें- माँ क्या हम भी साथ चले?</p>
<p>1.2 Can read the names of familiar objects commonly found in the textbooks. जानी पहचानी वस्तुओं के नाम पहचान और पढ़ पते हैं (जो किताबों में अक्सर होते हैं, जैसे आम, अनार, खरगोश, कबूतर।)</p>
<p>यह किस चीज़ का चित्र है?</p>  <p>सही उत्तर पर गोला बनाइये:</p> <p>क. घंटा ख. घर ग. घड़ी घ. घड़ा</p>
Level 2
<p>2.1 Can read short sentences, stories and poems. छोटे वाक्यों, कहानियों, और कविताओं को पढ़ पाते हैं।</p> <p>2.2 Enjoys reading a variety of textual materials based on their interest and ability, such as pictures, posters, unfamiliar stories, poems, etc. अपने स्तर और पसंद के अनुसार तरह-तरह की रचनाओं/सामग्री- कहानी, कविता, चित्र, पोस्टर, आदि को आनंद के साथ पढ़ते हैं।</p>

दी गयी कविता को उचित हाव-भाव से पढ़िए।

बहुत जुकाम हुआ नंदू को,
एक रोज वह इतना छींका।
इतना छींका, इतना छींका,
इतना छींका, इतना छींका।
सब पत्ते झड़ गए पेड़ के,
धोखा हुआ उन्हें आंधी का।

Level 3

3.1 Can read and comprehend textual materials beyond those suggested in the textbook, such as newspapers, hoardings, etc.

अपनी पाठ्यपुस्तक से इतर सामग्री (अखबार, बाल पत्रिका, होर्डिंग्स आदि) को समझ कर पढ़ते हैं

दिए गए समाचार पत्र के अंश को पढ़कर सुनाइए।

यूपी में शीतलहर का प्रकोप जारी, कई इलाकों में आज व कल बारिश के आसार, बढ़ेगी ठंड



उत्तर प्रदेश में जारी शीतलहर का प्रकोप और गहरा सकता है। मौसम विभाग ने अगले 24 घंटों के दौरान पूरे उत्तर प्रदेश में कुछ स्थानों पर बारिश होने या गरज चमक के साथ बौछारें पड़ने की चेतावनी जारी की है। मौसम विभाग ने आम जन से निवेदन किया है कि वे बहुत ज़रूरी काम होने पर ही अपनी सुरक्षा को ध्यान में रखते हुए घर से बहार जाने का निर्णय ले।

Step 3: Design pedagogical approaches

The effect of the pandemic has blurred class-level boundaries: despite being in a particular class, students may not have acquired the competencies expected from that particular level. In such a situation, the pedagogical approach planned and facilitated for a class needs serious reconsideration. Matching classroom teaching to students' varied learning levels is a central component of differentiation. A classroom in which the teacher is able to differentiate between levels of competencies, resources, content, teaching process and the learning environment, is desirable.

The basis of differentiation is students' attainment of competencies as per the diagnostic assessment worksheet which is designed according to the learning ladder. A teacher may arrange students in different groups based on their learning levels. A variety of approaches may be used for each of these groups to scaffold

students to the desired class-level competency. It is important to note that children had attained desired competencies before school closure but may now have forgotten those since they were away from school for a prolonged period of time. Diagnostic assessment worksheets will help a teacher in recording the competencies in which children need help and those that they can complete independently.

As the curriculum and the teaching-learning environment may have changed in the current situation, dynamic curriculum reorganisation based on student groups is the need of the hour where multi-grade and the multi-level teaching approach needs to be followed in all classes in order to address the learning needs of each child.

The following is a sample grouping for reading skills in primary stage. A teacher needs to plan, design and facilitate appropriate pedagogy for every group of students.

Group 1

Children who are not able to recognise letters and sounds

Group 2

Children who are able to connect letters with their sounds, but are unable to associate words with pictures

Group 3

Children who are broadly comfortable with both letters and words but struggling with reading of small stories and poems.

Group 4

Children who can read familiar texts easily but are unable to read unfamiliar texts.

Summary

Given the wide variation in student learning within any classroom, standardised and centralised assessment designed at state- or national-level will not be effective in the current scenario. Central, state and district organisations should make every effort to identify fundamental competencies and

organise them into a stage-wise learning ladder, providing professional development to help teachers design diagnostic assessments, support teachers to translate assessment data into classroom instructions and explore ways to integrate learning loss with current grade curriculum.



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