Designing a hybrid teaching-learning module

With the current level of technology, teachers can be armed with insightful data to ensure that students become engaged learners, writes Sindhura Narayana

ver the past five years, there has been rapid progress in technological tools to aid
the teaching-learning process in schools.
One of the positive outcomes of the pandemic has been the widespread adoption of technology in imparting school education. However,
due to time constraints imposed by sudden school
closures, this process has been unstructured.

Now, as we inch closer to prepare for offline schooling, we must identify the advantages

> of technology and integrate these with traditional classroom teaching to maximise the learning process.

Thus, we need to create a robust model of hybrid education to ensure that school students are helped at every step.

Next, we can lay out a framework of hybrid learning to determine the best combination of tools and practices for the process. We should also know the most beneficial time to adopt synchronous learning (face-to-face/group interaction in a physical/online setting) and for asynchronous learning (individual/self-paced).

For instance, at the level of concept introduction, it is better to have a synchronous approach, where teachers can set learning outcomes, observe, and gauge the level of comprehension among students. While a physical session is the best for classroom discussions, in case of special circumstances such as the current pandemic, online classrooms can also be adopted.

The same logic applies to assignments, presentations, and doubt clarifications.

> All these aspects of learning are enhanced by physical interactions between students and teachers. The feedback is

Before designing a hybrid module for school education, it is important to understand a student's learning journey. This can be summarised in six steps: Step 1: Introduction to a concept Step 2: Relevant study material and content to build familiarity with the concept Step 3: Practice material with varying levels of difficulty to learn ways to apply the concept

Step 4: Doubt clarifications to refine learning and undo misconceptions Step 5: Assignments/tests to gauge the level of proficiency a student has achieved Step 6: Analysis and feedback from teachers for all previous steps

in forms of verbal and non-verbal cues, which is continuously integrated into the learning.

Asynchronous learning is best suited for steps wherein a student must think critically about a concept as well as internalise its meaning and application. Here, access to technology can enhance the entire learning experience. For instance, study material and content can be customised to the learner's preference (video/audio/activity-based) and can be accessed at their convenience.

Similarly, adaptive learning technology and analytics can be deployed in practice questions and mock tests to help students progress without losing motivation. Through this, teachers also get an accurate report regarding the student's level of comprehension and proficiency. This helps plan more focused interventions and support.

These are only few of the many exciting possibilities in a hybrid learning environment. With the current level of technology, we have a real chance of arming teachers with insightful data and ensuring that students become engaged learners, leading to positive learning outcomes for all.

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