Learner-Centric Education in Heterogeneous Learning Environments:
Key Insights for Optimal Learning

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ABSTRACT

Learner-centered education through appropriate methodologies will facilitate effective learning in higher educational institutions. Learners in any educational institute come from varied backgrounds, abilities, and various personal attributes that will affect the pace of learning. To achieve learner-centric education, instructors have to use appropriate methodologies to engage students actively in learning. Methodologies include individual and collaborative learning types. This paper focuses on active learning strategies and their impact on achieving learner-centric education. Strategies are used based on session outcomes and assessment plans to achieve the outcomes planned. The paper also discusses the strategies available for instructors to develop independent learning, interactive learning, and collaborative learning among students.

KEYWORDS

1. INTRODUCTION

In the current scenario of education and the competitive world, a student learning a subject and applying its concepts depends upon the teacher and student. This paradigm shift of learner-centric education attracts educational researchers to propose new instruction and assessment strategies.

The Blooms taxonomy helps in measuring the assessment levels of learning outcomes, out of which "Apply" level (third level) is widely considered. Thus, the teaching community encourages various active learning strategies like posing questions and debates on each topic to yield maximum learning outcomes from their class.

A student has to learn the concept which has to be useful in the future, and they should learn the concepts fully so that they can be useful in the future or in real-life situations or towards further learning. A deep understanding of a concept can help students utilize the knowledge for a long range of time, making such learning a better investment for a teacher, rather than the learning that makes the students passive and the student soon forgets concepts without practice.

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After a few concepts are taught, a student has to go through a formative assessment or summative assessment. Summative assessments have been done for a long time, but it has some drawbacks. A summative assessment is conducted after full completion of the course by comparing it with some standards or some benchmarks. It includes complete chapters or content areas. There will only be a single evaluation at the end of the course, but the content to learn and attempt in the assessment will be huge for students. Most of the students give more focus and priority to summative assessment, whereas it becomes tedious for a faculty to divert the students towards the right path. Due to this, summative assessments are considered as a "Product". The instructor can use the feedback given by the students to improvise their way of teaching, which even improves students' learning. The ADDIE instructional model (Kurt, S., 2018) which is built on this concepts reflects the same. A formative assessment will take place while the learning process is in progress, and it is conducted several times to ensure optimal learning. By following this process, an instructor can know whether students understand the concepts or need any assistance.

It requires some content to be prepared for students to get them ready for a formative assessment. An instructor can conduct a few formative assessments or evaluations for one chapter or some portion of the syllabus. An instructor can look into students' growth and further guide students towards an upward direction. A learner-centric education mandates learner-centric assessment too. In this manuscript, some of the learner-centric-active learning strategies and assessment types are presented.

To achieve learner-centric education, one must have an understanding of instructional and assessment diversity. This research aims at presenting learner-centric instruction strategies and assessment types. To transform a traditional learning environment into a learner-centric environment or to achieve a smart learning environment, there must be personalized instructions and assessments. This research work aims to discuss various assessment types and helps select a proper assessment method by the instructors for heterogeneous environments.

The organization of this paper is as follows. Section 2 presents the systematic literature review on several key teaching and learning strategies. Section 3 presents different Types of Learning and Assessments, including some active learning strategies. Section 4 discusses the Classroom assessment methods in detail. Section 5 presents Teaching and Learning practice methods for learner-centric education. Section 6 gives the conclusion of this paper, including future scope.

2. LITERATURE REVIEW AND SYNTHESIS

Jabbarova-Anora (2020) has discussed teaching and learning based on curriculum design for Higher Education and has mainly focused on teaching and learning foreign languages. The author's main aim is to teach foreign languages at all levels of education Jabbarova-Anora (2020) has discussed the importance of planning teaching, and learning practices are a fundamental aspect of academic staff in any organization.

Handling classrooms with heterogenous students is presented by Aluvalu et al. (2017). In this work, various learner competencies learning styles are also discussed. Veenashenoy et al. (2020) has discussed the adoption of technology in the teaching and learning processes in pandemic COVID 19 India. The study is limited to the positive aspects of COVID 19 and the drastic changes in the education sector by engaging students in learning through various virtual sessions. Ruiqi Deng et al. (2019) have focused on how teaching and learning can progress in a new direction using MOOCs. MOOCs have the significant potential to elaborate learning and teaching changes which helps to adapt quickly in a workplace. Shepard (2019) has focused mainly on how classroom assessments lead to students' progress and have mainly differentiated between formative and summative assessments. HajoMeijer et al. (2020) has discussed collaborative learning by different grouping types of assessment together, like intragroup peer assessment with individual assessment and group assessment combined.

Martin et al. (2019) have discussed award-winning faculty and how online teaching has to be done based on the students, how a course has to be designed and finally, how the online assessments

have to be conducted and evaluated. Shen et al. (2019) have focused on how the Learning process has been changed in higher education due to enhancement in technology and enhanced on how difficult it is to accept a new invention and its disruption towards conventional learning mechanism. Aldowah et al. (2019) have reviewed educational data mining and learning abilities. It has covered the most important studies like computer-supported learning analytics, predictive analysis, behavioral analysis, and visualization analytics. Aluvalu et al. (2016) have explained innovative Teaching-learning practices at the Higher education level with a case study of the University bridge program. At the same time, Graham et al. (2002) introduced hybrid courses with technology. Blended learning strategy for classroom teaching is presented by Rajanikanth et al. (2021).

Ferreira et al. (2020) have promoted how learning is done socially and emotionally depending on teachers. A sustainable model is presented in this work for conceptual learning. Sivarajah et al. (2019) has focused on innovative teaching methods in medical science and followed various approaches like audience response technology, how teaching in long-distance can be done, flipped classrooms, and active learning. Camilla Marie Larsen et al. (2020) has performed a scoping review to gather ideas and recommend teaching evidence-based practice for different levels courses. They have applied this method to undergraduate health care students. Alava et al. (2019) have written a paper on how the teaching and learning process impacts the brain. The main purpose is to consider the practices that give more importance to human thoughts. Menendez et al. (2019) have focused on how formative assessment has its significance in the teaching and learning process, so by using this, the quality of performance of students will be increased, and thus, it can be used as a strategy to promote and collaborate between them.

Dudek et al. (2019) have focused on how to make changes in the universal classroom practice ways by conducting Formative assessment and training the students and has enhanced it is as one of the best evidence-based and behavioral practice and instructional management practice.

3. TYPES OF LEARNING AND ASSESSMENTS

Teachers should know different learning styles, and it is one of the ways and important factors to elaborate and explain the information to the students. An instructor can make the student feel more confident in the classroom by knowing and understanding the students' format of learning and preferences. By this, it will be easier for students to access the information. Due to this, students may feel more comfortable. It can help the instructor design a personalized learning experience for the learner, which is the need of the hour to establish a Smart Learning Environment (Anil & Moiz, 2019; Hoel and Mason, 2018).

There are two types of Learning: Active Learning and Passive Learning. In the present era, most educational institutes followed passive learning as a traditional learning method, for centuries. However a faculty member has to concentrate on both methods because of the student-centric education and heterogeneous learning abilities of students. The difference between the two depends on the instructor who teaches a course and how information is conveyed to the learner from the resource. It may be in any form like the resource can be a teacher or written material or any other resource that has included technological advancements. The main difference between active learning and passive learning is discussed further.

3.1 Active Learning

Active learning is one of the methods which incorporates students and the learning environment in student-centric learning. It is an engaged inspection technique, where teacher acts a co-learner. Students' role here is to questioning, critical thinking, discriminating, and being confident on their own or others' judgment. It involves the student through the relevant discussions on topics and activities. Using this method, students' conceptual understanding is restored and strengthened by engaging them with the lesson process instead of merely listing the facts and explaining through

traditional methods. Some active learning strategies include games/challenges, hands-on lab work, group activities, and so forth.

The active learning process makes students think divergently, which will be beneficial for students to think less about the concepts and focus more on practical. This way of learning makes students connect to the real world and can even apply it in their own lives. The key and basic skills a student develops in this learning process are to analyze a topic and its evaluation and public speaking. A continuous feedback from learner helps the teacher to perform a detailed analysis that can lead to bridge the gap between teacher and learner. The active learning strategy improve the students' critical thinking as well. It gives students a bigger role in the learning process environment, provides frequent review on the comprehension of learning material, and even stimulates discussion and increases student attention. A teacher who implements active learning should consider a few points like they require more flexible and spontaneous lesson plans and should have the potential to distract students if they are not monitored. Some of the Learner-centric active learning strategies (Active learning designs, n.d) are mentioned below:

- Open-ended Questions: In this design, no instructions are given to the students. Learners have to explore on their own, which enhances their observation skills. The students can be encouraged to work in groups that promote collaborative learning (Prasad and Aluvalu, 2017).
- Guided Discovery: In this strategy, students are given a guided task with many solutions. The goal is to encourage students with a new way of thinking and observations. There can be many solutions to this task, which enable students to have multiple paths for the solution.
- Problem-based Learning: In this strategy, small set of instructions with well-defined tasks are given to students.
- Each task is clearly defined, and even a time limitation can be mentioned. A student has to apply their knowledge in their way. The learning outcomes till that timestamp can be assessed with this, even at the end of the course. In the current scenario, Hackathons are being conducted widely for the programming skills assessment. A holistic assessment of programing knowledge is performed through such activities. It is one of the significant active-learning strategies.
- Model building: A hands-on model building and discussion are designed as part of instruction in this strategy. It's an effective active learning method that can assess deeper understanding of concepts. This strategy helps in correlating with real-world scenarios.
- Research Discussion: In this strategy, discrete pieces of information on a topic are given to the learners. They collaborate with their peers to build a meaningful discussion on a specific topic/problem. This strategy yield the highest level of Blooms taxonomy named "Create". This strategy leads to some innovations at the learner level, making them experts in observation and presentation.
- Interactive lectures: This strategy makes a two-way flow of a lecture. The Learners actively engaged in this strategy, where the instructor monitored and managed the lecture delivery. Such kind of interaction is benignly achieved in the contemporary online lectures too such as H5P lecture videos. An instruction can be repeated for the learners who did not achieve the required outcome level.
- Structured activity: This strategy includes tasks that have a clear outcome. A learner has to follow instructions to solve the given task. Such tasks will be considered complete only when a specific result is obtained. It's a kind of summative assessment that we discuss in the next sections of this paper.

3.2 Passive Learning

It is one of the traditional ways of learning; in this, a student has a minor role, and the main focus is on the course's instructor. The student's part is to listen and understand the concepts. The teacher's part

is to impart knowledge to the students, wherein this process student's role is to receive information provided by the teacher, and they will be trusting and questioning, which is passive.

In this way of teaching, students may assume that there is only one correct solution, and they pre-assume that learning is a process in which the teacher is the only one who will be sharing. Students are wholly responsible for understanding the information in their way. The information presented can be in any form, as material or lecture. The student is responsible for paying attention in class. Passive learning mainly promotes a student's defining, describing, listening, and writing skills. And usually, the instructor will check or test the students through assessments, quizzes, and handouts. It has various benefits, as a teacher can quickly present a different kinds of information. This teacher has more control over the course delivery. By following this method, teachers maintain pre-planned and reusable lecture notes. It even has a few low points which need to be considered by a concerned teacher, like it may appear boring or non-relatable to students. In this, a teacher will have fewer opportunities to test the student's comprehension and students are merely involved in the learning. The student may be shy to speak about the misunderstanding.

3.3 Learner-Centric Assessment

Conducting assessments will be helpful for both an instructor and student to check the student's progress and whether the learning objective is achieved. It helps further make changes in the teaching and learning process if required. The central theme of assessment is to check improvement towards the learning outcome by an instructor. The learner-centric evaluation is part of learner-centric instructional design. The assessment strategy will be predefined following the learners' learning styles. We present several types of assessments in the following sections: Formative, Summative, and In-class Assessment techniques.

3.3.1 Formative Assessment

Formative assessment is a continuous process used to evaluate the benchmarks and check whether the learning objectives are achieved. Later, it helps identify a student's misconceptions and apply various strategies to make students understand. Formative assessment is called an 'assessment for learning' because understanding a concept can encourage personal accountability.

Providing feedback is the advantage of formative assessment. Both instructors and students can use the available feedback to make changes and learn. Formative assessments are used to identify the significant stability and flaws of the student, providing suggestions on the areas where each student should improve, useful for instructors to identify gaps in learning, and helpful for instructors to work on the flaws and close those flaws.

Some examples of formative assessment include low stake grouping, peer reviews, concept mapping, surveys, outlines of the main idea of the concept within two sentences, and quizzes. Whenever an instructor implements a formative assessment, he has to consider a few points, like encouraging students to work for the best. An instructor has to offer clear and concise feedback. If students believe an instructor or teacher cares about their learning process, they are more likely to be motivated and involved in learning. The next teacher has to close students' learning gaps by asking the students to resubmit the article, recommending further steps to improve knowledge and providing strategies to achieve success.

3.3.2 Summative Assessment

Summative assessment is called an assessment of learning. It is usually conducted formally at the end of the course or semester and focuses on the extent of student understanding. Students give more importance to the summative assessment as there is more weightage, and it would be worth very high and more of a total grade.

Some examples of summative assessment are a final examination essay, a final practical project, an exam with review/discussion/and/or problem-solving questions, research project, and/or

a presentation. The information gathered for summative assessment will be useful when building the future course. A rubric can be developed for future assessments (Anil and Moiz, 2017). It may be helpful for students for the next steps in the learning process. A summative assessment has to consider a few points, like guidelines to outline the performance range whenever an instructor implements it. Providing guidelines to students before the assignment would allow them to evaluate their work. The instructor should prepare essay questions assessing the student's creativity while expressing their understanding of the topic; high priority should be given to comprehension. Clear guidelines and criteria should be mentioned, including the date on which the assessment will be conducted and at what time and procedures for grading. It should even include how precise and long the answer to the questions needs to be.

4. IN-CLASS ASSESSMENT METHODS

In the Indian higher educational system, students have different backgrounds and belong to different geographical locations. Thus the students in a class will have mixed learning abilities. Some students may be active listeners as well as speakers. This type of student understands the concepts very quickly; in the same way, we have mediocre students who need guidance in knowledge or learning. If an instructor focuses on such kinds of students, they will shine, and lastly, the students who are below average and they need to put in more effort. To deal with these varieties of students, an instructor must follow a few methods so all the students are satisfied while learning.

4.1 Grouping

In this type of assessment method, students are combined into a group of three, where three different kinds of students are connected, i.e. an above-average student, an average student, and a below-average student are made as a group. A common task will be given to the group; the above-average students act as the lead. Here, collaboration and team-fostering skills will be improved. Students learn more in the group because they can easily discuss. The assigned tasks are evaluated by teaching assistants who are different from those who teach the class. It can be any student or instructor based on the knowledge of a person.

Figure 1. Classroom assessment methods
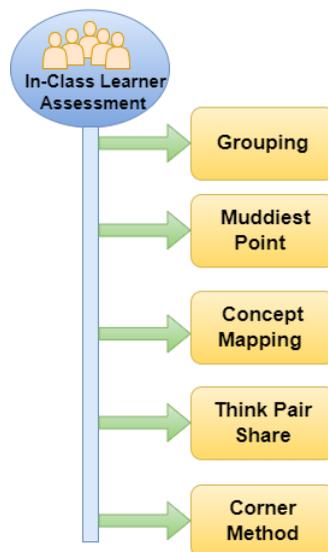
4.2 Muddiest Point

It is the most straightforward technique available that can be applied in classrooms. It is a useful rapid monitoring technique where students are asked to write down the most challenging concept or confusing part of a lesson. These methods consume nearly 15 minutes to scan nearly 100 muddiest points. Using this technique, an instructor can know up to what level a student has understood the concept and the misconceptions and hurdles faced by a student to understand a concept. Through this, a student can understand his learning. All the students have to return their responses while leaving the classroom. The instructor has to respond to student feedback in the next meeting. They have even guided the students on how the given feedback can be used to understand further concepts. The process is as follows: An instructor has to determine what feedback they want from students here, an instructor has to figure out where the students struggle most or what is of the most value. Then an instructor has to plan a session in such a way that they have to give some time to pose a question and should wait for students to response. All the students should be provided with prior information regarding the time constraint to answer the question and when the results will be released by the instructor and give feedback. Finally, the instructor has to collect responses as or before he leaves the classroom.

4.3 Concept Mapping

Concept mapping is a diagrammatic representation of concepts. This can help learner to organize concepts in a visible manner. Concept mappings begin with the central concept and branch out into sub-concepts or sub-topics. This idea provides an observable action of learners understanding. The expected advantages of a learner are that it helps the students to be creative while learning the concepts and generate new ideas. It allows students to communicate ideas, information, and thoughts more clearly. It encourages students to enhance new concepts and the suggestions that connect them. It enables students to upgrade new information on any concept and evaluate the information. It helps students to merge new concepts with the old concepts.

The modus operandi for the concept mapping exercise starts with an instructor selecting a concept or theme for the students to explore. An example to illustrate a sample concept map could help students with this exercise of creating a concept map on the assigned concept/theme. The students identify related keywords, rank the keywords from most general to specific, combine those concepts which work at the same level and which are interrelated to each other. Then the students start determining the interrelated concepts, and that should be written on the line depicting the dependencies connecting the concepts. Further concepts have to be arranged into diagrams.

4.4 Think Pair Share

This is the best discussion-facilitating technique. It is a simple and speedy method to adopt this technique. An instructor presents a challenge or question to a student, and then the students reflect quietly and team up with other students to discuss and share the idea. Conducting this activity may take around 5 to 15 minutes. We can engage the class with content across various levels using this technique. This method will help participants to categorize and have prior knowledge and helps in exploring the content across various levels of understanding. It also improves student contribution to a greater extent. Think pair share is a widely accepted technique. There is a low risk involved to share ideas with in a small group rather whole class. We can apply this technique whenever the instructor wants participants to express new ideas and explore concepts present in the lesson.

It works in the following way. It starts with exploring an appealing problem that should be attractive and relevant among peers. An instructor should plan to present a question, i.e., either through PPT Slides or through the worksheet. Next, an instructor has to pose a critical thinking question. Then, students will reflect on the question and write the notes for one minute. Students pair up and discuss with fellow peer/s to come up with a best-proposed solution. Later, the instructor can randomly select a few pairs of students to summarize individual or joint answers.

4.5 Corner Method

The Corners method is a strategy to extract collaborative content from students. This student has to actively participate by getting out of their seats to work together in a team to explore strategies and concepts.

It works in the following way: The initial step is to categorize students into four groups, and each team/ group is allotted to one corner. Each group has to select different content or topics for each corner, and flip chart paper has to be provided. Papers have to be mounted on the four corners of the room. Each student group will record their ideas on the paper is fixed to one of the walls allocated to the team area. Once the team has completed the listing of the ideas, the teacher asks groups to move one corner to the other either clockwise or ant-clockwise direction. After moving to a new corner, all the teams have to observe the content written by another team on the wall. Each team will be given some amount of time to observe and understand the information on the wall, and they can append with new ideas if they like to. Then again, the team moves another corner in the same direction they followed in the previous step and follows the same procedure until they reach their original positions or corner. In this way the team's idea can be presented to the other teams.

5. TEACHING LEARNING PRACTICE METHODS

Students in a classroom have different backgrounds and cultures; each student will possess different abilities, personalities, and capabilities, adding to the diversity of their previous institutes. If you want to be an effective teacher or instructor, you need to formulate and implement innovative and creative strategies that are practical and should reach the needs of the students. This applies to all the teachers despite the duration they have been teaching. We cannot apply the 'one size fits all approach. A faculty has to blend a range of different strategies which are practical enough to practice.

5.1 Learning Objective

It will be very useful to think about the learning objective before starting a course. It is essential to have clear learning objectives, only which lead to delivering course outcomes. In the end, an instructor can answer what learners will be learning from a particular course and what they will be able to do after completing the course.

Figure 2. Teaching learning practice methods
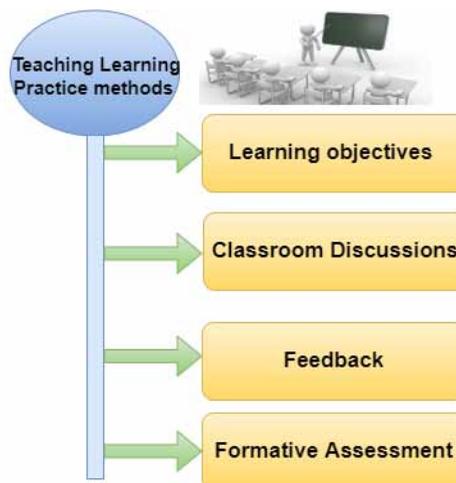
Another important aspect of setting a learning objective is clarifying the audience that you want to reach. Before beginning a course, an instructor has to research the audience and what they expect from his area of expertise. Once it is known, an instructor can cater and design a course according to user needs. When a course begins, an instructor has to clarify the learning goals and its perspective and provide explicit criteria on how a student will benefit from learning a concept. Its idea is to also present models or examples to students to see what the end product is.

5.2 Classroom Discussion

Once a topic is completed, an instructor has to let students revise and summarise the topic or have a class discussion. This lets students learn from each other. It is also an opportunity for an instructor to assess students through observation and know how well students understand a concept. Since the classroom is a dynamic environment, incorporating a practical approach to teaching can make it much more effective. An instructor has to provide concepts to students through visualization and practical learning experiences. Visualizing a topic can be done through a whiteboard or other platforms in an online class. With visual lecturing, students can remember and learn quickly. An instructor can even pose a thought-provoking question and encourage students to think independently. A faculty can even invite them to ask questions and investigate to enhance their problem-solving skills to have a deeper understanding of a concept. These are crucial skills not only in academics but also in real life.

5.3 Feedback

Providing feedback is very essential. It can help to understand the level of learning strategy. Learners can know where they are going wrong and where they need to improve. Along with individual verbal or written feedback, faculty needs to provide whole-group feedback on patterns they see in the collective class growth, and they can know where they need to improve. Students should also need to be given opportunities to provide feedback to the faculty to adjust the learning process, providing instructions and even material.

5.4 Formative Assessment

To know the level of understanding of a learner, a faculty has to conduct a formative assessment. To provide accurate and effective feedback to learners, one needs to conduct formative assessments frequently and routinely. Along with summative assessments, even formative assessments are also very important.

The following needs to be considered for any assessment: Each question must be aligned with the learning objective. The Evaluation should include different options for students to identify which area they need to improve or a topic to review. Questions should be shown with marks awarded for each question. At the end of the evaluation, there should be the option of obtaining a certificate or a batch as per performance.

6. RAJANIKANTH'S LEARNER CENTRIC ASSESSMENT STRATEGY

This research contributes to the existing body of knowledge by presenting learner-centric instruction strategies and assessment types, which have implications for theory. It also proposes an assessment strategy for learning centric assessment. With a focus on customization at the instruction and assessment level, which can transform a traditional learning environment into a learner-centric environment or achieve a smart learning environment. As same set of assessment need not to be repeated for students with different performances. This research helps new-age instructional designers and faculties to explore various active learning strategies. It helps to select a proper strategy, such as active learning that comprises several instructional strategies. As assessment carries a significant weightage of teaching-learning mechanisms, the wide varieties and their applicability can be explored in-depth in future research studies.

Effective learning can be designed with a detailed diagnosis, consistent pedagogical support methods, feedback systems, and so forth. Figure 3 illustrates Rajanikanth's Learner Centric Assessment Strategy.

The novelty of this research is depicted in the Figure 3. In the uniform assessment all learners are treated at same level which is contradiction to the Learner Centric Assessment.

To overcome this limitation, we propose a hybrid Learner Centric strategy, where each student gets a different assessment plan during learning based on the current performance. This personalization helps to focus on the areas where a learner is weak, which is not common for all.

Also, each assessment type may have varying significance in learning. We adopt the same with help of the weightage assigned to each assessment. Based on the weight, high priority assessments are given high importance, thus a weak student can more focused on the most important assessment/ concept that leads to promising learning outcome. We name this strategy as "Rajanikanth Learner Centric Assessment Strategy".

The detailed description of Rajanikanth'ss Learner Centric Assessment Strategy is presented below:

A: Set of all assessment activities. That includes all the methods explained in the above sections.
$A = \{A_1, A_2, A_3, A_4,…A_n\}$
w_i: weight assigned for the assessment 'i'
A_i: Assessment activity 'I'

Total score for a single formative assessment cycle: $w_1A_1 + w_2A_2 + w_3A_3 + w_4A_4 + … w_nA_n$
Recommended range of values for weights are: [0,1], where 1 is for highest, 0 for the lowest.
The components in the Figure 3 are explained below:

Preliminary Test: At the beginning of a course, students competence is to be noted. This phase recommends to conduct a Preliminary test. Based on the level of their competence, the set of activities need to be selected.

Formative Assessment Strategy with input set of Assessment Activities:

Figure 3. Rajanikanth's learner-centric assessment strategy
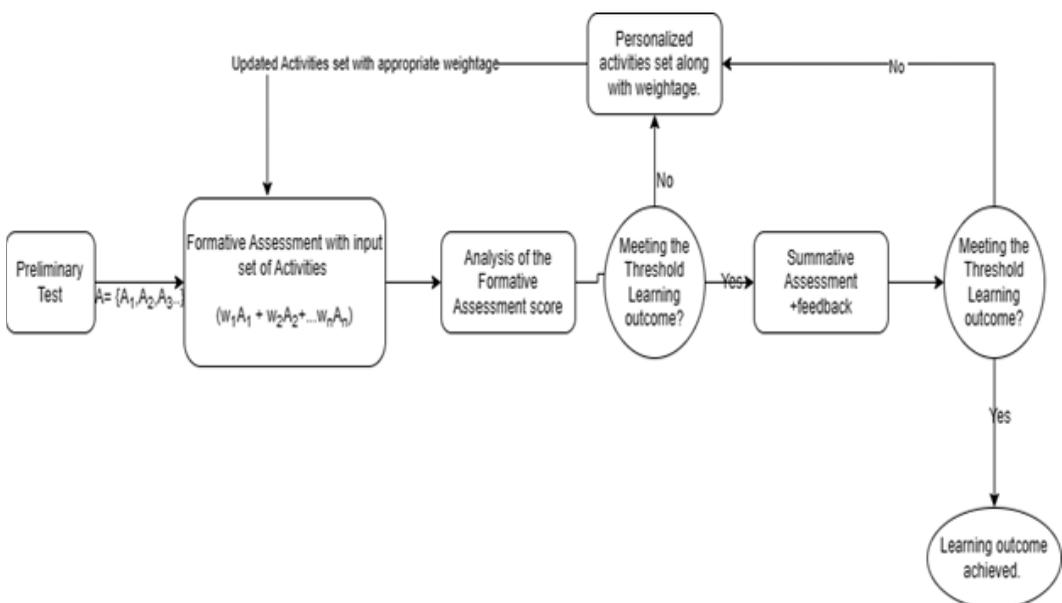
In this Phase, predefined set of assessment strategies based on the complexity level and learning outcome level. The weights also to be assigned by considering the time available for learning, revision, and possibility of repetition. We are aware that few assessments cannot be repeated, so an alternative learning activity must also be defined by the faculty. The faculty role in this design is explained in the following sections.

Analysis of the formative Assessment: The cumulative score of all assessments along with the weights are calculated. At this level, a comparative analysis among the students is been performed. Based on which, the complexity of an assessment need to be altered. There is no meaning to continue an assessment, if none of the student is able to complete. Also, we can reduce the weight of an assessment, where everyone has done perfectly. This analysis helps in deriving a maximum learning outcome.

Meeting the threshold learning outcome: In this phase, we check the score and analysis results from the previous sections. Only the student who did not meet the threshold value will get a personalized assessment sets and their adjusted weights. The repeat this formative learning cycle, which is essential in the Learner centric education.

Summative Assessment: Once a learner completes the Formative assessments in at a required level, the summative assessment will be conducted. There are higher chances of clearing the summative assesment, when a learner has gone through personalized instruction and assessment strategy in the previous sections. However, any learner fails at this level require to go back to the learner centric assesments at the formative level again. Here, the teacher plays an important role to alter the content and provide to the student based on the learner's learning style. This strategy will be complete by defining the role of teacher while designing the course and the teacher's responsibility is discussed next.

Role of a Teacher in Rajanikanth's Learner Centric Strategy:

The teacher must have a well defined learning outcomes expected at the end of the course. Based on each learning outcome and the level of learning, assessments must be selected. There is a detailed explanation of all assessment strategies available in this paper. Based on significance of each learning outcome, appropriate weights for that assessment must be defined. Alternative assessment for each task must also be defined well before. It will help to alter the Assessment strategy, when required. A teacher must prepare learning content at different levels of complexity to provide a Learner centric instuction model by considering various learning styles.

7. CONCLUSION

To achieve learner-centric education, an instructor has to use suitable methodologies to be engaged in the active learning process. Differentiated teaching with active learning strategies will help students overcome intellectual competence and learn better. Faculty requires extensive training to handle the classes actively. Utilizing time effectively is the key to the success of the mentioned strategies. Applying the strategies will give imperative results and will be very useful for the hybrid teaching model.

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