


# 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

Active Learning, Assessment Methods, Higher Education, Learner-Centric Education, Learning Practices

## 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

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