



LEARNING OUTCOME BASED PEDAGOGY IN MULTIDISCIPLINARY CLASSROOM

MOR PAL SINGH

RESEARCH SCHOLAR, KUMAUN UNIVERSITY NAINITAL, UTTARAKHAND

ABSTRACT:

In present era two new concepts are in trending in Indian Education System. First is multidisciplinary classroom and the second one is the new pedagogical aspect based on leaning outcomes. The new learning outcome based pedagogy is latest in India, and called Outcome based education also. The present research aimed to study the benefits and limitations of the learning outcomes-based pedagogy in Multidisciplinary classrooms. The learning outcomes are announced recently at secondary level of education. However it is introduced by Ministry of Education in 2017 for elementary level as a document named Prarambhik star par seekhne ke pratiphal or Learning Outcomes at elementary stage. The draft is prepared by NCERT New Delhi. The pedagogy used for achieving these outcomes is also known as Outcomes based education. For the betterment of quality of education the concept of learning outcome is decided to apply at all the stages of education one by one. Therefore after 2017 learning outcome drafts for secondary level is issued in December 2019. A multidisciplinary classroom involves the usage of educational materials and content from different disciplines to make the students understand the complex topics. The students understand the real world in a better way as they get to know the complexities and interconnections of their surroundings. The outcome-based education which focus on the learning outcomes require the multidisciplinary approach in the educational settings. It is concluded that the learning outcome-based education is a suitable approach for multidisciplinary classrooms.

KEYWORDS:

LEARNING OUTCOMES, PEDAGOGY. MULTIDISCIPLINARY CLASSROOM, OUTCOME-BASED EDUCATION.

INTRODUCTION

Education is a fundamental pillar of human society, and the pursuit of effective educational strategies has been a continuous endeavor throughout history. Education accepts new concepts to ease its process and enhance the capability of their followers i.e. teachers, students, administrators and curriculum developers etc. similarly to elaborate the content and related topics, a number of pedagogues are evolved. Learning outcome based pedagogy is one of them. In present era two new concepts are in trending in Indian Education System. First is multidisciplinary classroom and the second one is the new pedagogical aspect based on learning outcomes. This learning outcome based pedagogy is the latest teaching learning pedagogy in India. The learning outcomes are announced recently at secondary level of education. However it is introduced by Ministry of Education in 2017 for elementary level in the form of document named Prarambhik star par seekhne ke pratiphal or Learning Outcomes at elementary stage. The draft is prepared by NCERT New Delhi. The pedagogy used for achieving these outcomes is also known as Outcomes based education. For the betterment of quality of education the concept of learning outcome is decided to apply at all the stages of education one by one. Therefore after 2017 learning outcome drafts for secondary level is issued in December 2019, and it's in the process of development for the higher level classes. A multidisciplinary classroom involves the usage of educational materials and content from different

disciplines to make the students understand the complex topics. The students understand the real world in a better way as they get to know the complexities and interconnections of their surroundings. The outcome-based education which focuses on the learning outcomes requires the multidisciplinary approach in the educational settings. Simultaneously, multidisciplinary approach brings out more clarity in the content where it is required which makes it more easy to comprehend and enhance the capability of students to grasp the concept and also the depth of concepts by the explanation.

Multidisciplinary approach is where two or more academic disciplines collaborate for a specific purpose, for instance, when computer scientists, psychologists and sociologists cooperate in the design of human/computer interfaces. It means that although a multidisciplinary approach uses the skills and knowledge from more than one academic discipline, the use of knowledge from different disciplines remains distinct, even though the differences between the disciplines can be quite subtle. For example – architects, engineers and quantity surveyors commonly work together on construction projects, each applying their specialist knowledge to their own area of expertise. When a project is completed, each of the specialists return to their own area of expertise to start other projects.

A multidisciplinary approach is also often used in healthcare and social work, where patients clinical and healthcare needs are met by a multidisciplinary team, for

example- nurses, social workers, general practitioners and psychotherapists may work together in multidisciplinary teams to address such problems as the rehabilitation of stroke patients.

This strategy brings together specialists from a wide range of fields. Through the elimination of traditional subject boundaries and the provision of an integrated learning perspective, it equips students with the skills necessary to face the challenges that they will face in further education and in the modern workforce.

When this multidisciplinary approach used in education to enhance the learning outcomes of a specific level of students in a particular classroom to explain efficiently the content having need of more than one discipline experts, this setting is called multidisciplinary classroom. This makes the concept of the particular subject more clear to the students and they grasp it more easily which enhance their level of outcomes automatically. However, the elaborated content have the different disciplined mash-up but the students have to study this as a single subject taught by the teacher/expert of same discipline which sometimes brings boredom on the students. For example – In secondary education the students belongs to ZBC groups have to study physics which have a lot of mathematical derivations, similar condition occur during the study of chemistry. Multidisciplinary classroom resolve this problem by using the experts from mathematics. By which the students grasps the concepts very clearly and can be more clear about the mathematical concepts.

Learning outcome based pedagogy used learning outcomes to inform students, teachers and all stakeholders about what they are going to experience or learn in this academic session. Actually learning outcomes are the smallest part of the skills which a learner is expected to learn and get expertise after the learning. They are behavioral and can be measured everywhere by everyone by the performance of students regarding them. Learning outcomes are the micro skills which a learner can apply in his daily life. Thus, the learning outcomes provide the opportunity for the experts of various fields to meet at a common junction for the innovative multidisciplinary classroom settings to benefit the students of today for preparing them for the real world of their upcoming tomorrow.

REVIEW OF RELATED LITERATURE

Dhananjay (2024) conducted a research to find the effectiveness of teaching through multidisciplinary approach on the learning outcomes of secondary level students. A total of 80 secondary level students were taken in two groups. First group was taught using traditional method of teaching, while the second group was taught by using a multidisciplinary approach. Descriptive survey method of research has been used in this study. Statistical findings of study indicated the increment in the mean score of learning outcomes of secondary level students when taught with the help of multidisciplinary method of teaching. This Study concludes that the teaching through multidisciplinary approach results in improvement of

student's creativity, adaptability and critical thinking.

Oudenampsen, et. al. (2023) has done his research named by *Interdisciplinary education affects student learning: a focus group study*. The present study deepens the understanding of the challenges and opportunities inherent to the implementation of an interdisciplinary course. The attitudes and beliefs of students studying in this interdisciplinary course were elaborated using focus group interviews. A total of 13 students out of which 7 from medical science and 6 from communication and information sciences were included as the sample of the study. A total of four semi-structured focus group interviews were conducted. These interview were recorded and analyzed with the help of "Constant Comparative Analysis" technique. The focus group interviews revealed three differences in epistemics between students in terms of 1) curriculum content, 2) educational formats and 3) student's competence perceptions. These factors influenced the way students evaluated themselves, each other and the interdisciplinary course.

Oladoye et. al. (2023) explore at *Enhancing Educational Outcomes through Linguistic Insights: A Multidisciplinary Approach*. Research says that Language affects understanding in education, communication skill and critical thinking skill. The aim of study is to explores a multidisciplinary approach to enhancing educational outcomes by leveraging linguistic insights. For addressing language baries and make communication effective educators can leads to examining the intricacies of language, which helps them to better tailor their methods to meet the needs of diverse learners. By The means of integration of technology further enhances these insights which indicate the needs of multidisciplinary context. Study concludes that The multidisciplinary approach promotes collaboration among educators, linguists, psychologists, and technologists to develop innovative strategies and tools that empower learners and educators alike.

Roy (2022) studied on the topic named *Multidisciplinary Approach in Teacher Education Programme: A Study*. Objective of the study is i) To give a clear cut concept of the multi-disciplinary education or multi-disciplinary approach in education. ii) To highlight different aspects of multi-disciplinary approach in teacher education. This study is solely based on secondary data collected from the available resources such books, journals, articles, magazines, web resources etc. The methods are followed here descriptive and analytical. In this study researcher focused the key concept of multidisciplinary approach that it is a unique method in teaching and learning programs. With the help of this approach educators and administrators integrate curriculum to present a theme, subject or issue in a easiest way of understanding in order to enrich and enhance the subject area. Study conclude that International Bureau of Education (IBE-UNESCO) specifies three major types of contemporary approach to curriculum integration such as - multidisciplinary,

interdisciplinary and trans-disciplinary approach in education. Multidisciplinary approach is a whole or comprehensive method that covers an idea, topic or content by integrating divergent knowledge domains. It is a very strong and relevant approach of curriculum integration which focuses primarily on the different disciplines and the diverse perspectives while illustrate a topic, theme or issue. NEP-2020 has given impetus on multi-disciplinary approach in teacher education in the country.

Macayan (2017) did his research on the topic *Implementing Outcome-Based Education (OBE) Framework: Implications for Assessment of Students' Performance*. He had given various definitions of Outcome and found that the common factor among them is that the outcome is always something as a product of any factors or events. They are seen as the results of the students learning and the students are expected to demonstrate them at the end. Some outcomes are expected to be demonstrated at course level and some at program level. The culminating outcomes are the most important one as they reflect the real life roles of the learners.

NEED OF THE STUDY:

India is the permanent signatory member of the Washington Accord since June 2014. India has started implementing OBE in higher technical education like diploma and undergraduate programs. The National Board of Accreditation, a body for promoting international quality standards for technical education in India has started accrediting only the programs running with OBE from 2013 such as Engineering, Pharmacy, Management programs. To effectively achieve the learning outcomes in the contemporary OBE, multidisciplinary approach will prove to be very fruitful as the teaching-learning content is often composed of the material from more than one discipline. An illustration of this is the effective understanding of the mathematical word problem require the sufficient understanding of the language aspect of that by the student so that he can comprehend the problem and makes a clear mapping of it in his mind. On the other hand, the Outcome-based pedagogy can give a correct direction to the multidisciplinary classroom as the learning outcomes consists of a set of skills which indicates the students clearly what they have to learn in each subject and up-to which level. These also helps the teacher to be clear about what is to taught and up-to which level. In learning outcome based pedagogy, the teacher acts as a facilitator so he is free to modify the teaching strategy to make the students achieve the learning outcomes and to use the multidisciplinary aspects of teaching wherever needed. Thus, the learning outcome approach gives sufficient platform to the multidisciplinary aspect of the classrooms. Thus, the need arises to study that up-to which level the learning outcome based pedagogy and multidisciplinary classrooms benefit each other, and what are their limitations.

OBJECTIVE OF THE STUDY:

The present research aimed "To study the benefits and limitations of the learning outcomes-based pedagogy in Multidisciplinary classrooms."

METHODOLOGY:

In this study the secondary data analysis methodology is used to interpret and fulfill the aim of the study. Researcher studied various magazine, research articles, related study, blogs, books and website of central and various state govt. to collect real information about the concept. Research also studied the MOU between our nation and international groups for the purpose.

DISCUSSION AND SUGGESTIONS:

The following main results are extracted from the above studies and researches-

- 1- Educations aimed to develop new knowledge and skills in its nation. Which is only possible by excepting openly new paradigm evolved globally and shift immediately from our paradigm if needed.
- 2- Multidisciplinary classroom or approach is the need of almost every content if we want to assimilate it at its highest peak.
- 3- Learning outcomes based pedagogy allow teachers to use the knowledge from multi-disciplines if needed.
- 4- Learning outcomes are the stitches of skills in education fields which further make a complete skill just after completing a definite or fix level of their education. Students are completely free to assimilate them all at their speed. But they are process based, behavioral and also related to their daily to daily life. So they can learn it fast as compare to traditional education methods.
- 5- Learning outcomes indicated teachers where to use the difference disciplines or experts as the content indicated as: learning outcome of mathematics indicate- to understand how to locate square root of two at number line there is two expert needed to clear this problem ahead students 1- student can understand linguistically to word problems if anyone can't then two expert are needed.
- 6- Achievement of learning outcomes of language educators address language barriers, and foster effective communication which may lead to ease the possibility of understanding and getting learning outcomes of every subject or disciplines.
- 7- By increasing collaboration among educators, linguists, psychologists, mathematicians, and technologists the multidisciplinary approach aims to unlock the full potential of learners by enhancing their level of educational outcomes.
- 8- By fostering a deeper understanding of the

intricate relationship between numerous discipline and the learning outcomes of learners, learning outcome based pedagogy inspire administrators to develop innovative strategies and tools that empower learners and educators alike.

- 9- The multidisciplinary classroom helps in framing the clearly well-defined learning outcomes which enable the students to understand the objectives and follow a step-by-step process to accomplish them.
- 10- Outcome based education (OBE) makes students possess a mastery of various skills and knowledge. They learn the practical applications and how to use the knowledge in real-life scenarios.
- 11- OBE contributes to the overall competency of the future employees. This pedagogical approach is conducive to the updated teaching and learning to generate positive outcomes.
- 12- The students get the chance for continuous improvement in OBE. Activities, assignments and various kind of assessment align with the respective outcomes, enabling teachers to access progress.
- 13- The varied instructional approaches are implemented by the teachers. Also, they create and rely on appropriate evaluation techniques to access student overall development.
- 14- This approach results in experiential and self-directed learning by the students.

Some of the limitations of learning outcome-based pedagogy in multidisciplinary classrooms are:

1. There are certain obstacles in the implementation of the learning outcome-based pedagogy in multidisciplinary classroom as the teacher and students are used to the traditional pedagogy.
2. It is challenging for teachers to make clear and measurable learning outcomes that align with program objectives.

3. Successful implementation of this pedagogy requires proper training for the teachers.
4. There are certain resources restrictions for the teachers such as requirement of rubrics, assessments and faculty trainings.

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