

**CONCEPTUALIZATION OF AN INNOVATIVE  
EDUCATIONAL TAXONOMY FOR THE  
21<sup>ST</sup> CENTURY LEARNERS**

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# **Conceptualization of an Innovative Educational Taxonomy for the 21<sup>st</sup> Century Learners**

## **Abstract**

The key purpose of this study was to design and develop a new taxonomy of educational objectives for the 21<sup>st</sup> century learners; in view of the recent theoretical perspectives, needs of learners, value-based education and the up-to-date technological advancements, in order to accustom to the distinct educational and cultural milieus in India. This had been attained through the review and analysis of the prevailing educational taxonomies, extensive grounded theory approach, construct building exercises, discussions, and interactive and brainstorming sessions. The new taxonomy evolved out of the study is proposed to be named as 'Taxonomy of Ingenuity and Connectedness (TIC)', and is aspired to have the ability to impact the modernization of classroom ecosystem and the modification of educational management principles and practices; as well as in curriculum designing at various levels of learning, and teacher education curriculum. Also, the interaction process and educational architecture of the 21<sup>st</sup> century classrooms could be improved in view of the outcome of the present investigation by creating an effective and inspiring environment.

## **Introduction**

The 21<sup>st</sup> century is propelled by the outburst of numerous new learning theories and abundant learning styles. The present-day instructional pattern is fundamentally administrated by sophisticated educational theories and practices, which steer the teaching-learning process with a 'what' instead of 'how'. This underlines the need for the elucidation of objectives and learning outcomes to the learners, which creates a clear-cut anticipation of the learners' accomplishments at the culmination of the instruction. This stresses the basic necessity for the teachers, students, learning setting and classroom design to be armed to acclimatize the qualities of the transforming situations. Since the 21<sup>st</sup> century learners have rapid approach to fresh information and experiences, they require instructors to visualize the role played by technology in the classroom, thereby allowing students for free exploration. This demands the current educational structure to focus on the needs of the 21<sup>st</sup> century learners, stimulate innovation and creativity, and bring about a new face of classroom instruction through technology.

## **Conceptual Framework**

Various worthwhile educational taxonomies developed by prominent educators are known. Bloom's taxonomy has created an outstanding impression in the whole educational practices by transforming the instructional pattern. But it has been misused and misjudged by educators. Also, it stressed the attainment of the cognitive domain objectives alone. Although it has been modified, it met with several problems concerning feasibility. Also, the development of a new array of technological tools presents students more genuine learning experiences, which in turn prompt students for setting new goals. The 21<sup>st</sup> century stresses the need for outcome-based education, which helps to cultivate the vital abilities like problem solving, critical thinking and self-learning in learners. This condition necessitates a speedy and radical change in the entire educational pattern with the initiation of a fresh approach centred on learning outcomes. The perspective of educational taxonomies demands an unavoidable change. This scenario obliges the design and development of an improved form of taxonomy, by riveting the best components of the existing ones.

To gratify the requirements of present-day learners by serving them with information at a quicker rate, advanced practices that foster learners' technological skills and creative thinking need to be incorporated to the existing curriculum. This emphasises the speedy need of the development of a contemporary theoretical paradigm steering the designing of a new taxonomy for the 21<sup>st</sup> century learners, which centres on moulding learners who possess ingenuity. Also, the concept of connectedness has to be incorporated, which ensures the improved participation of students in classroom practices and their association with the peers, thereby creating a vibrant atmosphere.

In order to create a new taxonomy of educational objectives for the 21<sup>st</sup> century learners, it is inevitable to conduct an in-depth review and analysis of the existing taxonomies of educational objectives. Also, the elements in the present educational setting, which require a facelift, need to be identified. The investigator, by means of reviews, surveys, interactive sessions and intense construct building through grounded theory approach, conceived a conceptual framework of a new educational taxonomy for the 21<sup>st</sup> century learners. It comprises theoretical categorizations, which are linked to each other as a theoretical depiction of the activities, evolved by means of profound research processes.

In the current study, the investigator conducted an inclusive analysis of the prevailing patterns of educational taxonomies and recognised the practical difficulties in their application. One of the major points perceived was the inadequacy of the structures to achieve and evaluate the proposed outcomes successfully. This inspired the investigator to propose a new taxonomy framework, which contains three realms, with each realm containing stems, and each stem constituting learning outcomes, characterised by outcome indicators. An extensive area of human development is to be developed through the process of learning or other activities linked to the classroom ecosystems. Etymologically, the word 'Realm' is derived from a French usage, which signifies kingdom. Here, 'Realm' represents an entity, which is more adaptive in character in terms of principles and practices in the class. 'Stem' is a distinct compartment under realm, which more precisely functions in a particular manner, being a factor to the configuration of realm. Each stem includes a group of functional outcomes, which attempts to enhance the progress of learning.

By means of the outcome indicators, the teachers get a precise understanding of the achievement of learning outcomes, which successively help them to assess the extent to which meaningful learning has occurred in all the three realms and particularly assesses the effectiveness of teaching. The three realms included are the Cognisant Realm, which deals with having knowledge or awareness, including three stems namely Information Processing Stem, Creative Stem and Experiential Stem; the Humanistic Realm, which relates to or supports the principles of possessing human values, including three stems namely Attitudinal Stem, Societal Stem and Value-Driven Stem; and the Synergetic Realm, which is mostly technology supported, including two stems namely Collaborative Stem and Simulative Stem. The investigator proposes to name the designed taxonomy as 'Taxonomy of Ingenuity and Connectedness (TIC)'.

## **Conclusion**

In the current world, we need to teach students how to retrieve and use information efficiently in their everyday life. We have to impart worthwhile education in them in order to prepare them to be genuine problem solvers and to encourage them

to think from varied outlooks, which is inevitable in the present world. A pertinent educational taxonomy permits learners to accomplish both of these objectives. The depiction of the 21<sup>st</sup> century classrooms has to be predicted taking into consideration the needs of the students, which demands widespread insight, creativity and imagination of the investigator. Also, not many studies have been carried out in this field, which is a defying challenge for the investigator. Since this study is a doctoral dissertation with the funding of the UGC research fellowship, which is yet to be published, the disclosure of the complete details of the study is not possible now. However, soon after the publication of the dissertation, the comprehensive framework of the taxonomy would be published, which is aspired to be a worthwhile piece of work in the entire educational practice.

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