Modern Age Learning: Understanding the Modifications of Teaching and Learning Styles

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Abstract

Education can be defined as the acquisition of knowledge, skills, values, morals, beliefs, habits, and personal development. It can be further considered as an experience that has a formative effect on the way one thinks, feels, or acts. There has been much interest and modification in learning modalities and styles over the last two decades. Few of the facile method floated up, such as the autodidacticism; evidence-based learning, blended learning, self-assessment, which are coined by many pedagogical researchers to be adopted in present learning environment. The field of Online and Open Education is considered for this research, which identifies the works of curriculum development including the methods of teaching and students' engagement as a process of establishing the understanding of certain educational norms catering to larger values and economic support. This aims to upgrade the current methods of study for students and professionals enrolled in the academic and industrial structures and wish to upgrade their learnings with time. Hence, the researcher examined the curricular developments in the recent decades to search out the theoretical and pedagogical bases of blended and distance education systems. The analysis of the new trends and concepts that have evolved, formed a basis of consideration to curate content and delivery method. Further, the new possible methods such as the use of computer software, videos, animations, and interactive sessions were encouraged into the learning processes, by the respondents of a survey under this research. The study consolidates with development of interactive content as a mode of delivering education and instruction on an individual basis to learners who are not physically present in a traditional setting such as a classroom. Modernization has brought up a remodelled idea of education with the with the more specific purpose of developing independent thinking in the learner. The research implies to the social purpose and personal development that had long been the two principal aims of educational systems. These changes attempted to meet the needs of a free society, of a society becoming culturally aware of itself and of the specific manpower requirements of a modern society, further assisting the identification of modified pedagogical methods that may be adopted by academicians.

Keyword: Blended Learning, Open Learning Methods, Curriculum Development, Interactive Content, Experiential Learning.

Introduction

Universal accessibility and mobility are terms that have been modified with time. Today, the digital era is offering diverse opportunities in many sectors of growth, including the education sector. Education can be defined as the process of facilitating learning, the acquisition of knowledge, skills, values, morals, beliefs, habits, and personal development (SDG Resources, n.d.). With this aim it incorporates various methods within itself - teaching, training, storytelling, discussion, and directed research. An experience that has a formative effect on the way one thinks, feels, or acts may be considered educational, and hence traditionally education has taken place in formal settings. The fundamental structure of education divided into formal stages of primary, secondary, graduation, and other higher studies. With time, education is becoming inevitable in the adulthood and new standard system are being defined with value-added courses. Although, online education is a decade old interface, but has recently gained scope, while learners were exposed to its own-paced feature, during pandemic. The evolving world with global challenges has put a lot of knowledge in state of becoming obsolete and inaccurate. This emphasizes the need of teaching new skills, and to pick up new knowledge quickly in an agile way. The movements in education reforms, reflects needs for improving quality and efficiency of education towards relevance in students' lives and efficient problem solving in future society at large. A 2010 meta-analysis by Neurobonkers (2012) communicates that online and blended educational approaches had better outcomes than methods that used solely face-to-face interaction. There has been much interest and modification in learning modalities and styles over the last two decades. Few of the most employed learning modalities suggested Finn, et.al. (2005) as follows:
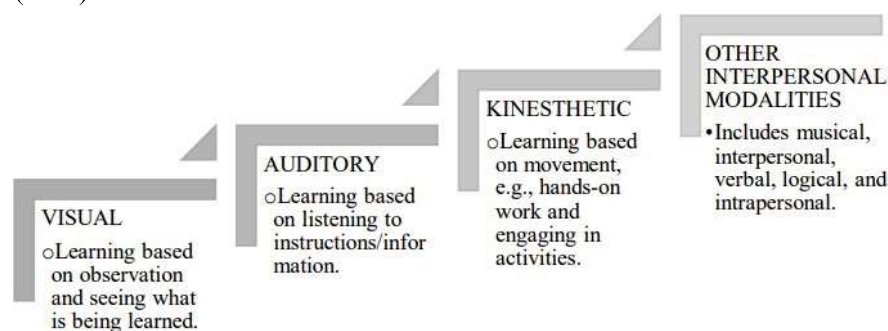

Fig. 1: Variety of learning modes suggested by Finn et.al (2005)

The new approach of education is to make the classroom environment work for students' individual needs, goals, and interests. These models proposed the idea of open education, and inquiry-based learning for the students. Thus, incorporating research as a tool for acquiring knowledge with experience.

Education was ideally designed to support early development and preparation for schools/universities and society. This model in today's classrooms provides with more opportunity to students to "experience and interact" with knowledge, which has its roots in autodidacticism. Autodidacticism is a self-directed learning process, which gives a person an opportunity to learn as per his own schedule and within his own pace, one may choose to become an autodidact at nearly any point in one's life. This further, has been coordinated by top universities, and made official as the universities provide 20% credits to the online courses (Mathew, Santhosh, 2021).

Though few barriers to online learning is accountable for limitation of interaction language, the usage of jargons, and more focus on theory, than the practice of the subject. Until now, these aspects have not even been considered for proper solution. Also, a self-paced learning requires strong motivation and self-discipline to succeed the online environment. Further, an online course without proper structure, credit considerations or accredited by trust worthy educational bodies, would be completely unsuccessful for a learner. In the large pool of online courses, the learners need to be aware of the authentication of knowledge, its delivery, and the certifications. Another aspect of new classrooms is evidence-based education. According to Mead (1986), it equips the use of well-designed scientific studies to determine which education methods work best, consisting of evidence-based teaching and evidence-based learning. Evidence-based learning methods has shown increase in rate of learning, where it would be not erroneous to say that evidence-based education movement has its roots in the larger movement towards evidence-based-practices. Open education has also been called the biggest change, in the way people learn since the printing press. Serrano, et.al (2019) shares that open education is not just open for students, but even for lifelong learners for propelling their career and expand knowledge level. Even businesses take up courses, to upskill their employees and create a learning culture. Thus, opening a vast ocean for educators to adopt asynchronous tools and blended learning methods for expanded curriculum and teaching base. The online teaching and learning method give an opportunity to pursue verified certificate courses from the comfort of one's own living room.

The certificate lists information like the provider's name, affiliating university or institution offering the course, which can be uploaded to employee profile. It is proof for employers and others that the course has been successfully completed. Despite favourable studies on effectiveness, many people may still desire to choose traditional campus education for social and cultural reasons, suggested by George Herbet Mead (2011).

The conventional merit-system degree is currently not as common in open education as it is in campus universities. Many reputed institutions and universities have extended their support to students through the open online courses. The expert-made lessons are made open with free access or heavily-slashed prices. To ensure creativity flows through the community, organizations like IIT Bombay, Harvard's, New York's The Museum of Modern Art and I've. League colleges have opened their reputed courses to the curious minds. The engaging video content and downloadable lessons, establishes a chance to add new skills or re-invent the practices with these online courses. This also draws line towards National Education Policy 2020, which is a learner centric doctrine which promotes multimodal approach to learning including face-to-face, online and distance or virtual mode combined with multi-disciplinary, vocational, value added, skill-development courses. Massive open online courses or MOOCs can be an effective tool which can help in implementing the NEP 2020 in real time. Clarke (2020) believes massive open online courses have waived a path to employment that currently bypasses conventional universities and their degree programs, founded by the studies, and have been more relevant to contemporary economic activities and the students' interests. Though such online courses are not commonly a part of formal education but are typically both completed and selected entirely on behalf of the student, and sometimes with the support of peers over online forums. In contrast, blended learning merges with online education with forms of face-to-face communication and traditional class-based education in classrooms, revealing itself to have the general capacity for increasingly relevant, resource- efficient, and effective approaches to education, infers Waks (2019).

Method

The entire study was planned under three phases - need gap analysis, development of content and e-tutorial. This consisted mainly of secondary research, experimentation of curriculum, and validation of course outline, content, and e-tutorial. Data analysis on the aspects of online education was done. This was inferred as one of the components of the guidelines for the development of new course outline. Information about other related subject areas and contents offered by different platforms were also collected and analyzed for the different pattern of knowledge delivery and assessment techniques. Different models for e-course curriculum development were identified through literature review and their relative aspects were studied. These analyzed components of curriculum and the curriculum development process were determined to introduce the appropriate components into curriculum to be developed. This was done through secondary source.

A need-gap survey was conducted for students to analyze the expectations of the students from a blended learning or hybrid mode course, the survey developed with psychometric properties, questioned the importance, expectations, and assignment delivery of an online course from the students' perspective. Further, the content was curated and arranged, which was later converted into tutorials to finally achieve the outcome of the study. Various key concepts and ideas and their interrelationships in the curriculum content were represented using pictures, animations, and tables and figures. The tutorial were the final product that could be presented to the target learners to acquire knowledge. The production of tutorial was structured in the following methods:

Brainstorming

Brainstorming consists of inviting two or more experts into a session in which discussions were carried out and opinions were considered or evaluated. At the time of designing curriculum, topics and subtopics to be included in the curriculum content were decided by consensus among expertise of guides of the study. Objectives of the course was treated as the basis of brainstorming session.

Concept Mapping

Concept Mapping paved way for organizing the curriculum content in a systematic visual format. Various key concepts and ideas and their interrelationships in the curriculum content were represented using pictures, animations, and tables and figures. For creating concept maps, a software tool, Microsoft PowerPoint were used to draw concepts, links and editing, deleting text related to labels, descriptions, arrangement of visuals, and several other accountable moves. The interrelationships were helpful in deciding the depth of the related topics and subtopics included in the curriculum with consideration of other factors like scope, depth, time available and requirements of the concerned course. The concept maps formed the basis for teaching curriculum content of a course. A topic can be represented by main concept and then related to other concepts. Then each of the main concepts having child concepts related to subtopics can also be represented. A well-arranged concept map in the form of presentations avoided complications.

The course content was offered to the experts for validation of the content as well as the guidance for knowledge arrangement and delivery. Questionnaire was prepared for providing the guidelines to the evaluators to evaluate the prepared content. Following aspects were covered in questionnaire:

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- How are the goals and objectives treated and explored in the content
- Does the content satisfy the professional demand or scope of the area in case of preparing contents of a subject/course?
- How relatable is the selection of content?
- Does the content represent latest trends, techniques, research in the concerned curriculum?

Curriculum experts from different departments belonging to different specializations were invited as respondents for the evaluation of course content. The data thus generated was organized, tabulated and analyzed.

Discussion

Open online courses (MOOCs) offer a pathway to employment as well, which surpasses the conventional universities' degree programs. They have shown more relevance to the contemporary industrial and economic activities and relates to students' interests. The self-paced option may be noted to keep them intact and sometimes the support of peers over the online forums. Open education may minimize costs, hardware requirements, deployment time, and would increase robustness, security, and functional features of the society. Many open universities are working to have the ability to offer students standardized testing and traditional degrees and credentials, which would help in controlling the parameters and achieving quality results. The curriculum of three institutes was referred to understand the details of the components of the related curriculum. Course outline, content and available so if given a choice to student to select the course it was difficult to make a selection. The content was prepared keeping in mind the absence of one to one interaction with the students.

Since most researches and respondents follow that the curriculum pattern evolved for fashion studies does not fulfills the sociological and psychological aspects of clothing there is need of this course. Experts from the department gave their views right from the title to the content development during seminars in the department. Inclusion criteria for the respondents to take part in the survey were: Students enrolled into graduation program related to fashion, clothing, textiles, and design, and students who have interest in humanistic sciences related to clothing. Secondary data was collected through questionnaire (annexure).The harnessing of the newest technology available in information science and communication guided the virtual educational environment development.An essential feature of curriculum design, seen in every college catalog and at every other level of schooling, is the identification of prerequisites for each course. These prerequisites can be satisfied by taking particular courses, and in some cases by examination, or by other means, such as work experience. In general, more advanced courses in any subject require some foundation in basic courses, but some coursework requires study in other departments, as in the sequence of math classes required for a physics major, or the language requirements for students preparing in literature, music, or scientific research. This is also leads to inter-disciplinary and multi-disciplinary studies for the learners. A more detailed curriculum design must deal with prerequisites within a course for each topic taken up. This in turn leads to the problems of course organization and scheduling once the dependencies between topics are known.

With the changing scenario of education and knowledge gain. Previous studies and review suggest a need of a flexibility in improving knowledge and skills. Today's structure of learning gives the greatest possible control over the time, place, and pace of education. As the survey highlighted the following points for an online course:

5

- flexibility
- convenience
- accessibility
- participative style
- absence of labeling
- written communication experience experience with technology
- experience with technology

These points were carried forward, and course outline was developed. The analysis of evaluation responses also appreciates the organization of the content with effects and animation to grab the attention of the viewer, and well-modulated voice. The video production was described as great, and the animations and presentation created were reflected to get students engaged in the course. An e-learning platform, Udemy, evaluated a series of online tutorials on how to prepare students for university.

Implications and Conclusion

The dawn of technology has paved the way for online education, and continues to benefit learners through the modes of blended learning, and self-assessment. The developed e-content can provide support for understanding the modifications for delivery of curriculum, and management of assessments by both the teachers and learners. The study consolidates that online course aims to give experiences to learners that uses resources available around them and will evolve to incorporate emerging technologies. Curriculum is a set of course and materials offered to learners for the purpose of achieving identified educational outcomes. This mode of delivering education and instruction on an individual basis to learners have been upgraded, and does not restrict to the traditional subjects nor the method of education. Today the skill set of an individual is the important aspect of learning, which is ⨼ need not only for students but even professionals. Hence, the research helps in understanding the modern age learning tactics to be inculcated in course and curriculum development, which is not only quick but even helps the learner to develop knowledge and skill on individual basis while self-assessing the practical skills developed during the course time. Social purpose and personal development had long been the two principal aims of educational systems and these are enriched by the technology as now education is not restricted to geographical locations and individual surroundings.

Modernization has brought about a remodelled idea of education with the more specific purpose of developing independent thinking in the learner. But the evolving world with global challenges have put a lot of knowledge in state of becoming obsolete and inaccurate. These facts have been realised by the global and national educational organizations as well, where we can acknowledge the use of Bloom Taxonomy and the guidance by NEP 2020 towards the new learning scenario. Therefore reflecting the scope of the study and emphasizes the need of teaching new skills, and to pick up new knowledge quickly in an agile way. These changes attempted to meet the needs of a free society, of a society becoming culturally aware of itself and of the specific manpower requirements of a modern society. The study provides an insight to the actual data, information, and knowledge in context with the repositories proposed in the framework, where the research finds its utilization for highlighting the new modalities of modern age learning.

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