IJFANS INTERNATIONAL JOURNAL OF FOOD AND NUTRITIONAL SCIENCES

ISSN PRINT 2319 1775 Online 2320 7876

Research paper Journal Volume 11, Iss 01, Jan 2022

Two-Dimensional Framework of Educational Objectives: Guiding the Professional Growth of Educators in Digital Literacy

Dr. D. Vishwa Prasad

Assistant Professor of Education, Maulana Azad National Urdu University, Hyderabad

Abstract

The paper emphasizes the importance of digital technology for teachers today, especially in light of the COVID-19 pandemic that has forced us all to become more digitally literate. Teachers must be well-versed in the latest information and communication technologies. Bloom's digital taxonomy outlines the latest developments in digital literacy, and this paper provides a comprehensive guide for teachers to acquire the necessary knowledge and skills based on Bloom's digital taxonomy.

Keyword: Bloom's Taxonomy, Bloom's Digital Taxonomy, Digital Pedagogy, ICT

Introduction

In 1956, Benjamin Bloom collaborated with David Krathwohl, Max Englehart, Edward Furst, and Walter Hill to create a framework for classifying educational objectives. They called it the Taxonomy of Educational Objectives, but it is more commonly known as Bloom's Taxonomy among teachers. This framework has been used for many decades in primary and secondary schools, as well as higher education institutions worldwide.

The original framework consisted of six categories: knowledge, comprehension, application, analysis, synthesis, and evaluation. Bloom and his co-authors explained that knowledge was the foundation for the other categories, which were considered "skills and abilities." Each category also had several subcategories, and all of them were arranged in a continuum from simple to complex and concrete to abstract.

In 2001, a group of instructional researchers, curriculum theorists, cognitive psychologists, and testing and assessment specialists published a revised version of Bloom's Taxonomy called "A Taxonomy for Teaching, Learning, and Assessment." The revised taxonomy uses verbs and gerunds to mark their categories and subcategories, rather than nouns, and it focuses on knowledge and cognitive processes. This two-dimensional framework helps teachers understand and implement standards-based curricula that connect all facets of knowledge in a given curriculum.

The educational objectives of the revised Bloom's taxonomy act as guiding principles for planning and delivering appropriate instruction, designing valid assessment tasks and strategies, and ensuring that instruction and assessment align with the objectives.

In Bloom's Digital Taxonomy, the categories are the same as those in the revised Bloom's taxonomy, but the subcategories are different due to the digital nature of higher and lower-order thinking skills. We will discuss the categories and subcategories of Bloom's Digital Taxonomy in more detail.

Bloom's Digital Taxonomy

It is crucial to understand why Andrew Churches devised Bloom's Digital Taxonomy. The purpose is to guide teachers on how to incorporate technology and digital tools to enhance student learning outcomes. This means that teachers must have a strong understanding of technology and digital tools before they begin teaching, to help students learn in an ever-changing instructional landscape.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper Journal Volume 11, Iss 01, Jan 2022

Bloom's Digital Taxonomy provides categories and sub-categories that focus solely on digital technologies and tools and establish educational objectives for instruction, materials and assessment, rubric making, curriculum mapping, and more. It starts with lower-order thinking skills (LOTS) and then moves on to higher-order thinking skills (HOTS).

The following text outlines the key verbs used to describe and categorize digital skills in teaching and learning contexts. It is divided into six categories: Remembering, Understanding, Applying, Analysing, Evaluating, and Creating.

Remembering is the act of retrieving information from memory. This category includes verbs such as finding, identifying, describing, naming, recognizing, listing, retrieving, and locating. Other verbs that fall under this category include bullet pointing, bookmarking, social networking, searching, social bookmarking, and googling. These power verbs can aid teachers in recalling digital skills and concepts.

Understanding involves interpreting and constructing meaning from various forms of media. Examples of verbs in this category include exemplifying, comparing, paraphrasing, summarizing, explaining, classifying, inferring, and interpreting. Other verbs include Boolean searches, twittering, tagging, subscribing, advanced searches, blog journaling, categorizing, and commenting. These verbs can assist teachers in comprehending digital skills to enhance teaching practices.

Applying refers to the use of digital learning materials to create models, presentations, diagrams, and simulations. Verbs such as executing, carrying out, implementing, and using are commonly used in this category. Other verbs include editing, uploading, operating, loading, sharing, playing, and running. These verbs serve as markers to apply the digital knowledge acquired to other domains of knowledge.

Analysing involves breaking down concepts into smaller parts and determining how they connect or an overall theme. Verbs such as integrating, finding, attributing, organizing, structuring, outlining, and deconstructing fall under this category. Other verbs include media clipping, reverse engineering, linking, cracking, validating, and mashing. These verbs can help teachers analyse digital skills and plan instruction accordingly.

Evaluating refers to making judgments based on standard criteria. Verbs such as monitoring, testing, experimenting, hypothesizing, detecting, judging, and critiquing are used in this category. Other verbs include refactoring, collaborating, posting, blog commenting, networking, moderating, and reviewing. These verbs act as hedges to help teachers evaluate their understanding of digital skills.

Creating involves combining various elements to form a new structure through meticulous planning and execution. Verbs such as making, inventing, planning, designing, devising, producing, and constructing are common in this category. Other verbs include broadcasting, podcasting, publishing, mixing, remixing, video blogging, animating, programming, directing, videocasting, wiki-ing, and filming. These verbs are markers for teachers to situate themselves in the digital world of teaching and learning.

Conclusion

Over time, information and communication technologies have undergone a significant transformation. With the rise of the Internet, the world has made great strides in the field of communication. We have witnessed an incredible change in the way we communicate through digital platforms. It is not just limited to passing on important personal messages, but it is also being used for educational purposes to teach students at every level of the knowledge ladder.

Digital technologies offer several tasks that can be done through them, such as texting, microblogging on Twitter, chatting, networking, questioning, video conferencing, commenting, negotiating, collaborating, instant messaging, emailing, posting and blogging, replying, reviewing,

ISSN PRINT 2319 1775 Online 2320 7876

Research paper Journal Volume 11, Iss 01, Jan 2022

skyping, debating, moderating, and much more. Therefore, communication through digital technologies has become necessary for every teacher to make their instruction, methods, and materials interesting and captivating, and assessment innovative.

I am confident that the digital ecosystem in India will undoubtedly impact digital pedagogies in India, and due to COVID-19, it has become inevitable.

References

1. Anderson, L. W., & Krathwohl, D. R. (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. New York: Longman.
2. Bloom’s Digital Taxonomy. Retrieved from https://www.teachthought.com/critical-thinking/blooms-digital-taxonomy-verbs/
3. Churches, Andrew. (2008). Bloom's Digital Taxonomy. Retrieved from https://www.researchgate.net/publication/228381038_Bloom's_Digital_Taxonomy