

# A Conceptual Study on Digital Dependency among Students for Education and Learning

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**Abstract—** With the emergence of e-learning, where instruction is done remotely and on digital platforms, education has evolved considerably throughout time. Web-based learning that efficiently uses information technology to teach knowledge to pupils is referred to as digital learning. In fact, this was only presented a few years ago and has received a phenomenal response from people all around the world. It is sometimes referred to as the Smart Teaching Technique. Without Digital Platforms, no one can meet the impending difficulties in this age of technological growth.

The main objective of this study is to conceptualize digital dependency among students for education and learning and understanding the importance, need of new styles of teaching to overcome problems faced by students. Secondary data has been collected for the study.

**Index Terms:** Digital Learning, Digitalization, Education, E-Learning, Dependency, Students.

## INTRODUCTION

Learning is an adaptive process in which our nervous system alters its perception of environmental stimuli, altering our behavioral reactions and allowing us to function in our surroundings. The process begins in our neurological system as a response to environmental stimuli. Neural circuits can be reinforced, pruned, triggered, or redirected, resulting in behavioral changes.

Distance education, computerized electronic learning, online learning, internet learning, and many more words are used to describe learning that is given online, via the internet. We define eLearning as courses that are provided specifically via the internet to a location other than the classroom where the professor is teaching. It is not a course that is given via DVD or CD-ROM, videotape, or television channel. It is interactive in the sense that you can communicate with your teachers, professors, and classmates. It can be delivered life, where you can

"electronically" raise your hand and interact in real-time, or it can be a taped lecture. A teacher or professor is always interacting/communicating with you and grading your participation, assignments, and tests.

## DIGITAL LEARNING

The twenty-first century has properly been dubbed the "digital era." With the internet bringing significant change to people's lives, we are increasingly reliant on technology to execute even simple activities. Most of you have probably heard about digital learning. E-Education has undoubtedly energized the education profession. The days of blackboards, chalk, and dusters are long gone. They have been replaced with web-based education, which improves students' learning experiences.

Digital learning Web-based learning that efficiently uses information technology to teach knowledge to pupils is referred to as digital learning. This was only presented a few years ago and has received a phenomenal response from people all over the world. In other words, it is also known as the Smart Teaching Technique, and as such, most schools and educational institutions have enthusiastically accepted this method, resulting in a massive shift in the educational system. The children are educated using enormous LCD panels and projectors, which go beyond traditional teaching methods. It promotes learning anywhere and at any time. The teacher no longer has to go through the trouble of writing on the blackboard with white chalk and then erasing it. Some of the benefits of e-learning include the fact that it saves time and money, leads to improved retention, is consistent, scalable, and, most importantly, allows for customization.

## TYPES OF LEARNING STYLES

Learning styles and preferences take on a variety of forms and not all people fit neatly into one category as there's plenty of overlap between styles. That being said, most learners align with the following styles: -



#### 1. Visual learners

Visual learners have a tremendous particular sense, which allows them to understand maps and have a strong feeling of direction. They can easily perceive objects, thus putting together an Ikea living room table is simple for them when shown a diagram of how the parts join together. Visual learners account for approximately 65 percent of the population, therefore you will most likely have several in your group. Visual learners, also known as spatial learners, learn and recall best through visual communication. This means that using a whiteboard, projecting maps and graphics, or displaying photos of your ideas will be most effective.

#### 2. Auditory learners

Discussion, group conversation, and lectures are the finest ways to enhance learning and communication in an auditory learner. This type of learner benefits from oral presentations and exams, as well as dictation and reciting out what they have read or heard. Because auditory learners cannot learn through visual means, they must repeat what they perceive. Remember that Ikea table? You should provide them with a whole set of instructions, or better yet, read them aloud, as presenting them with a diagram will not function as well. Auditory learners, who learn best through hearing, account for around 30% of the population. While many of their classmates and coworkers struggle to get through a lengthy lecture, an auditory learner will soak up the information they hear and remember up to 75 percent of it.

#### 3. Kinesthetic learners

Kinesthetic learners are a complex lot who account for only 5% of the population. People with kinesthetic learning styles frequently fail to learn through traditional and sedentary activities such as lectures and conferences. When listening or observing, their minds just cannot make the link that they are doing something. They must stand up and participate in the action for it to be remembered. They're quick to react, so if there's an emergency,

having a kinesthetic learner nearby with keen reflexes and a predisposition for getting involved is beneficial. Kinesthetic learners enjoy experimenting, so give them hands-on exercises to help them learn.

#### 4. Reading/writing learners

This is perhaps the easiest learning style to accommodate because most educational systems provide ample opportunity for writing essays, conducting online research, and reading books. Allow lots of time for these children to absorb information through the written word, as well as opportunity for them to express themselves on paper.

### TYPES OF DIGITAL LEARNING

#### 1. Adaptive Learning

Adaptive learning is a learning technique that uses the most recent AI developments to assess and analyses a learner's understanding of a subject. The adaptive learning system uses input from the learner to determine the learner's strengths and weaknesses in order to change content delivery. Learning feedback is used to tailor lessons to students' comprehension and retention rates.

#### 2. Badging and Gamification

Badging and gamification are motivational tools that use digital badges to reward learners. The badges are earned as a reward for completing a level of difficulty. The collecting of badges transforms the learning process into a gamification process that encourages learners to "conquer" new learning content.

#### 3. Blended Learning

Blended Learning combines digital and conventional classroom learning to provide the best of both worlds. Teachers and students meet in actual classrooms as well as online via interactive chat and virtual classrooms. Blended learning allows students to speed their learning while still maintaining a "group" atmosphere in the classroom.

#### 4. Classroom Technologies

Virtual reality, 3D printing, cloud computing, and social networking are helping to modernize classrooms. We anticipate that digital learning and traditional learning will blend as new technologies increase the capacity of both teachers and students. Teachers are discovering increased comprehension and retention by employing technologies that assist

engage users in the classroom. Mentimeter and Kahoot are two instances of classroom technologies.

#### 5. E-Textbooks

E-textbooks are digital copies of traditional textbooks. E-books are cheaper than traditional textbooks, quicker to update, and more cost-effective. We anticipate that e-books will soon outnumber traditional textbooks in popularity. E-books are best used when they are selected to promote blended learning, as supported by an LMS, such as the Leaderonomics Academy platform.

#### 6. Learning Analytics

Learning Analytics incorporates data mining into the learning process. Data gathering, measurement, and analysis are all part of the analytics process. Learning analytics is most typically used in online digital learning services to build and implement new methods and structures based on predictive modelling and the learning feedback phase.

#### 7. Learning Objects

Learning Objectives aid in the organisation of information, content, and practice evaluations into a user-friendly collection. The collection is often focused on a single learning aim. Learning objects are quite similar to object nomenclature used in computer science. Learning objects contribute to the curation of learning design, in which many learning items are stitched together to achieve the desired learning output.

#### 8. Mobile Learning

Mobile Learning (also known as M-Learning) refers to learning activities that can take place across different platforms. Mobile learning can also refer to a multifaceted approach to learning via electronic devices that incorporates both social and contextual interactions, as well as video and digital learning applications. Mobile learning is popular because it allows learners to participate in the learning process "on demand," anywhere and whenever they want.

#### 9. Personalized Learning

Personalized learning is a learning process that is customized to an individual's needs. Individuals who would benefit from a personalized learning route are targeted by the Personalized Learning experience. Personalized learning necessitates the creation of a learning experience that is tailored to a specific student and/or learning aim. This procedure enters the realm of Adaptive Learning when it is generalized or automated.

#### 10. Online Learning (Or E-Learning)

Online learning (electronic learning) allows students to expand their knowledge by using the internet. Online learning is popular since the lessons are frequently pre-recorded, allowing the learner to view lectures whenever they want. Online Learning (E-Learning) is related to digital learning in that it covers many of the same topics. Whereas Digital Learning refers to the digitalization of learning information, Online Learning refers to publicly available, ready-made courses supplied via the Internet to meet the demands of a large number of people, such as Massive Open Online Courses (MOOCs).

### LITERATURE REVIEW

Anne-Mette Nortvig, Anne Kristine Petersen and Soren Hattesen Balle (2018) E-learning is gaining traction in higher education, particularly in the form of blended learning, and this new type of traditional teaching and learning can be implemented in a variety of ways. Several studies have been conducted to compare face-to-face instruction versus online learning and/or blended learning in order to determine whether format gives, for example, the highest learning outcome, the most satisfied students, or the highest rate of course completion. However, this research frequently reveals that more than just the instructional format influences teaching and learning. Many aspects are important, and this literature review will delve deeper into some of them. The review focuses on characteristics that influence learning experiences in e-learning, online learning, and blended learning, with a particular emphasis on professional bachelor education and teacher training.

Ahmet Kesici, Nazenin Fidan Tunc (2018), The goal of this study was to explore the digital addiction (DA) level of university students based on their reasons for utilizing digital technologies. This study included 527 students from the faculties of education at Erzincan, Dicle, and Siirt Universities. A general survey model was utilized. A form was utilized to determine why and how frequently students used digital technologies.

Jayesh M. Patel (2017), Twitter, Glogster, Prezi, Diigo, Dropbox, and Moodle are just a few of the web-based applications that can be used in the classroom for digital education. Teachers and

students are interested in web-based digital learning, but lack the necessary expertise to get started. Web-based technologies will make learning more fascinating and encourage pupils in ways that a traditional classroom cannot. Currently, teacher-centric approaches make learning even for intriguing chapters monotonous; nevertheless, the application of digital technology makes even boring subject interesting and joyous. Only digital technology will be able to realize the concept of a child-centered approach.

Matthew Lancellotti, Sunil Thomas, Chiranjeevi Kohli (2016) The goal of this instructional innovation was to combine a comprehensive set of short online video modules covering essential themes from the undergraduate fundamentals of marketing class, as well as to assess its success in boosting student learning. To compare students who had access to video modules with a comparison group from otherwise identical classes, a quasi-experimental design was adopted. Because of the huge sample size, the student profiles in the two groups were comparable. Significant improvement in learning was seen across ethnic groups and genders, as judged by performance on a major exam.

Young et al. (2012) 'Preparing educators for quality online training' was researched. They discovered that being an educator online can be more tough than being in a regular classroom. Online instructors were expected to bear the additional responsibility of pre-planning courses, constantly facilitating the course, modelling effective communication skills, and changing courses to meet the diverse needs of students.

Yang (2008) in a case study 'Examining university students and academic understanding of ICT in higher education at Curtin University of technology' reported that university teachers who received support from administrators had a high commitment to the adoption of ICT for teaching and learning. Data in the study suggested that the adoption of ICT in teaching and learning would be promoted by greater support of the change at the management level of the University. A crucial factor contributing to the promotion of the innovation is the availability of infrastructure resources: hardware, in terms of the number of computers in the school available for students and teachers for educational purposes, and the quality and functioning of equipment (speed of

processors, peripherals and access to the internet) as well as available software.

Hsin-Kai Wu, Ying-Shao Hsu & Fu-Kwun Hwang (2007) discovered in a study titled 'Factors influencing teachers' adoption of technology in the classroom in Taiwan' that, while many teachers believe that educational technology can promote learning and that using technology is desirable, they are hesitant to use computers (ICT) due to insufficient support and resources provided by schools. He also stated that teachers' technological skills (such as technology competence and computer literacy) are essential for successful ICT implementation in the classroom. Teachers must grasp the enabling conditions of specific technologies in order to properly engage students in ICT-based learning activities. Teachers who have lower ICT proficiency are usually not willing and have less confidence to use ICT for teaching. Teachers who have strong engagement towards their own professional development are more motivated to use computers.

Gihan Wikramanayake (2005) Education has traditionally been centered on sources such as schools, teachers, and print media. Students get access to information sources by enrolling in schools, teachers, and libraries. Prior to the digital era, the majority of people could not access information, and those who could were unable to receive current knowledge in today's environment. The modern civilization desires to know information as it occurs and when it occurs, and the world is transitioning from an information society to a knowledge society. As a result, education is given top attention, and brainpower is quickly becoming an organization's most important asset. Advances in digital technology have offered up several learning opportunities. Information is now accessible / transmittable from anyplace and by / to all groups of people thanks to technological advancements. Most sections of the world now have access to education, and ICT has become an essential component of daily life.

Yi Yang and Linda F Cornelious (2005) With an increasing number of online courses and degrees available, there is a lot of interest in online education, especially when it comes to the quality of online instruction. This article looked at new challenges and barriers for online instructors, highlighted important

themes in the literature about "quality control or assurance" in online education, and provided practical strategies for instructors to plan and deliver effective online instruction. Recommendations on how to prepare instructors for quality online training were provided.

Mr. Pratiksinh S. Vaghela (2016) The twenty-first century is the century of information technology and the internet. Nobody can envision a single day without the internet. The internet has become an essential part of our daily lives. The internet has had the greatest impact on children and teenagers in society. It is critical for a country like India since it is the second-youngest country on the planet in terms of population after China. It is our most valuable resource, but a big percentage of them are distracted by digital entertainment, making them less employable. This is referred to as digital addiction. This article examines internet use and its penetration in the world and India, as well as its impact on generation D, which are children and teenagers who use digital devices excessively, resulting in digital addiction.

#### OBJECTIVE

The main objective of this study is to conceptualize digital dependency among students for education and learning and understanding the importance, need of new styles of teaching to overcome problems faced by students.

#### RESEARCH METHODOLOGY

The study tries to highlight the concept and Literature of digital dependency among students for education and learning. The Data has been collected from extensive desk research through E-library, different available published articles, journals, books, internet, magazines, and seminar papers and the world-wide web. Secondary data has been collected for the study.

#### CONCLUSION

The study concludes that the research papers included in the review show that among the many factors, educator presence in online settings, interactions between students, teachers, and content, and designed connections between online and offline activities, as well as between campus-related and practice-related

activities, seem to dominate more. The report thus points to certain important elements, but it also explores and questions the value of studies focusing on comparisons of individual forms of e-learning, online learning, and blended learning. Instructional and learning are complicated processes that are influenced by factors other than the teaching method. According to Yang (2005), Luarn and Lin (2005), and Venkatesh and Davis (2000), the Technology Acceptance Model, along with certain included constructs, is a solid beginning point in examining consumer behaviour regarding online education platform utilization. The current study investigated the eight parameters influencing digital learning and its reliance in the Indore division.

Various characteristics of digital learning have been recognized, such as the freedom to pick the location, the lack of time constraints, the digitalized content, digital learning has simplified research work, online tutors or instructors, and exam preparation. This study discusses the technological process of knowledge formation, creation, and acquisition. The use of information and communication technology (ICT) to manage and organize explicit knowledge is emphasized. The report also explains how technology is utilized to get access to and implement such knowledge. and discusses how these technologies have been used in education and their overall impact. The availability of ICT on its own is insufficient; it must be complemented by technical and instructional support. He also claimed that one of the key impediments that resulted in computers being underutilized in the classroom was a lack of technical support. Teachers do not use computers in the classroom because they are unsure where to turn for assistance if something goes wrong.

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