



DIGITAL TRANSFORMATION IN EDUCATION

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ABSTRACT

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The digital transformation in higher education is considered as one of the mega trends in education sector and gained potential in recent times. It basically describe the transformation from traditional learning to virtual learning. Digital transformation is not adapted by all the institutions, though the majority of the institutions are practicing digitization in education. They are restricted only to the basic part of digitalization. Tools such as use of PPTs, software like word, excel etc. are used in teaching students. Students are not exposed to use digital and digital aids. The researchers in this study have attempted to understand the concept of digitalizing education service, the perception of students with regard to digitalization and to evaluate the requirements of students in respect to digitalization.

The study revealed that although many institutions of higher learning are practicing digital media for the benefit of instructors and students, there is still a lot that needs to be done. It was also found that majority of the students prefer improvement in learning through digitalization.

KEYWORDS: Higher education, Digital transformation, Virtual learning, Digital media, Students perception, Digital education, Educational service, visual tools.

INTRODUCTION

Digital transformation in education refers to bringing about a change or advancement in current education system in order to meet the ever growing expectations of the students as well as the teachers and this helps to bind them together in a positive manner. It is not about software or hardware up gradation it is more about a collaborative and interactive education. Though the Indian education system is striving hard to bring about a change in teaching methods, it is not greatly successful. It is necessary to understand the grounds of requirements as the students these days are not interested in class room lectures, they prefer something that can have positive impact in their way of learning. Some of the digital learning tools like Edmodo, Ted-Ed, kahoot, animoto makes learning interesting .In replacement to classroom lecture in the sector of education the

educator can adopt technologies like Personalised and adaptive learning, two way conversation in e-learning, mobile or video based learning, usage of virtual reality and augmented reality of learning etc.

Though there is a significant proof that digital transformation in education is benefitting majority of the students who are already experiencing such way of learning. It is an undeniable fact that not every college is adapting to digital transformation in education it is important for all colleges to bring in digitalization in education as the students expect an interactive way of learning.

BENEFITS OF DIGITAL TRANSFORMATION IN EDUCATION

- Digitalisation in education sector enable students to develop self-directed learning skills

- It helps students in the development of analytic reasoning
- It enables or drives student to become more accountable and it also helps students to understand the concepts in a realistic way
- Digital learning acts as an effective method for minimizing costs and maximise the positive growth for the students as well as educators.

- There is a need to identify what was the perception of students pursuing higher education towards the recent or increasing change in the field of education system
- Therefore there is a necessity to understand the perception of the students and to identify the challenges and opportunities in bringing digitalisation into education system

REVIEW OF LITRATURE

A number of research papers and articles provide a detailed insight about the role of digital transformation in current education and view of digitalization.

1. **Melissa Bond, Vitoria (2018)** concluded that the prominence of digitalization also features in project calls by the Federal Ministry of Education and Research, targeting research proposals to further analyze the state of digitalization within education, including conducting systematic reviews. Following a first call in 2016, 20 projects are now being funded that revolve around the three main topics of ‘Adaptive Learning and Assessment environments’, ‘Interactivity and multimediality of digital learning environments’ and ‘Researching theory and practice in digital learning environments’
2. **LasloSeres, Pere Tumbas(2018)** concluded that the phenomenon of digital transformation is widely studied in numerous academic domains, and the crude overview of the field is a result of such research. Different authors have defined digital transformation in different, often ambiguous ways. A query into academic and professional literature using keywords “digital transformation” results in thousands of papers exploring the concept of digital transformation from different perspectives. The most common perspectives include: an individual, an institution/organization, a network, an industry or an entire ecosystem, economy, as well as the digital era.
3. **Deepanshu, (2016)**focused on e-learning application model based on cloud computing will not stop its pace to proceed. As the cloud computing technologies become more sophisticated and the applications of cloud computing becomes increasingly widespread, e-learning will certainly usher in a new era of cloud computing.

STATEMENT OF THE PROBLEM

- The education system in India has become obsolete and therefore with advancements in technology and modernization in the method of teaching is changing in a slower space

OBJECTIVES OF THE STUDY

1. To study the concept of digitizing educational services
2. To study the perception of students with regard to digitization of educational services
3. To evaluate the requirements of the students in the respect to digitization of educational services

METHODOLOGY

The research on digital transformation in education was based on both primary and secondary data. The primary data was collected by circulating questionnaire to student’s pursuing higher education in different colleges. A sample size of 100 was considered to carry out the research. Secondary data was collected from online websites and books. This data was tabulated and analysed. Findings have been summarised and suggestions have been made.

SCOPE OF THE STUDY

1. The research paper limits itself to the opportunities and challenges of digital transformation in education with respect to higher education, in India
2. The opportunities that is being expected by the students and what they are being offered.

LIMITATIONS OF THE STUDY

- The primary data was randomly collected from students pursuing higher education in different colleges
- The study is limited to UG and PG students.
- The findings of the study cannot be generalized to other areas of research

The accuracy of the study depends upon the objectivity of the students which could be biased.

ANALYSIS AND INTERPRETATION OF DATA

Table no 1 showing the age group of the respondents

Age group	Percentage
18-20	32.4
21-24	62.9
Above 25	4.8

From the above table it is seen that 32.4% of the respondents are in the age group of 18-20, 62.9% of them are in the age group of 21-23 and the remaining 4.8% belong to the age group of 25 and above. Therefore it can be inferred as majority of the respondents are from the age group of 21-24 who are young people just passed their teens.

Chart no1 showing the age group of the respondents

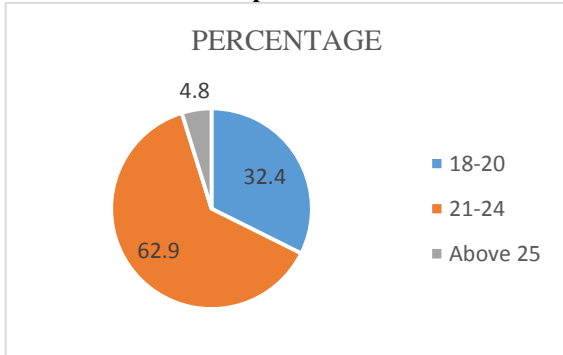


Table no 2 showing the education qualification of the respondents

Qualification	Percentage
UG	39
PG	56.2
Others	4.8

From the above table it can be analysed that the percentage of the respondents of the study is a combination of students who are currently pursuing under graduation, post-graduation and other educational background. This study comprises 56.2% of the post graduate students, 39% of under graduates and the remaining 4.8% belong to other educational background. Therefore it can be inferred that majority of the students are pursuing higher education.

Chart no 2 showing the education qualification of the respondents

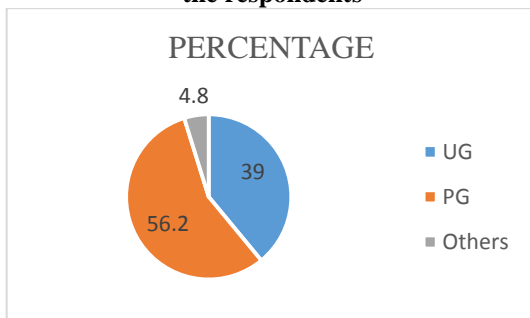


Table no 3 showing the awareness of digital education among respondents

Response	Percentage
Yes	92.3
No	Nil
Somewhat	7.7

From the above mentioned table it is seen that majority of the students are aware of digital education that is 92.3% of them are aware of digitalization, but 7.7% of the respondents are confused if they are aware about digital education or not. Therefore it can be inferred that majority of the students are aware about digital education.

Chart no 3 showing the awareness of digital education among respondents

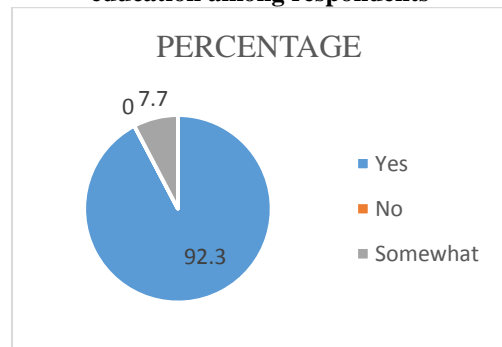


Table no 4 showing the respondents' perception towards digital education

Response	Percentage
Spreading knowledge via computer, internet etc.	37.1
Learning via computer, internet, mobile phones etc.	9.5
Teaching the use of digital media	10.5
Both a & b	42.9
None of the above	Nil

The above table represent the perception of the students towards digital education. It can be analysed that 37.1% of the respondents perceive that spreading knowledge via computer, internet etc. is digital education and 9.5% of the respondents feel learning via computer, internet, mobile phones etc. is digital education but majority of the respondents feel both spreading knowledge and learning via computer, internet etc. is digital education and the remaining 10.5% of the respondents perceive teaching the use of digital media is digital education. Therefore it can be inferred that the majority of respondents feel both learning and spreading of knowledge via computer, internet etc. is digital education.

Chart no 4 showing the respondents' perception towards digital education

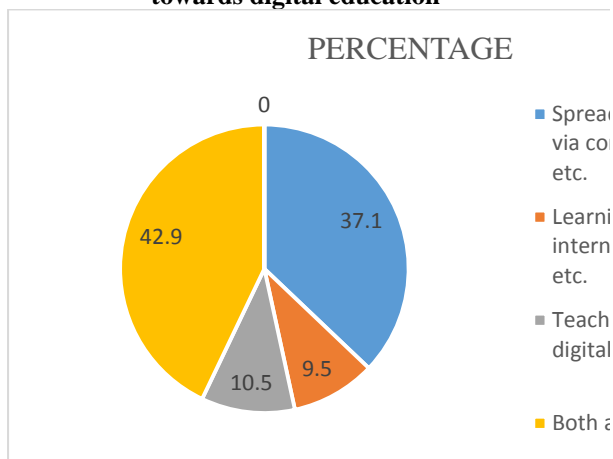


Table no 5 showing if the respondents have experienced digital education

Response	Percentage
Yes	97.1
No	2.9

From the above table it is clear that 97.1% respondents have experienced digital education and remaining 2.9% haven't experienced digital education. Therefore it can be inferred that majority of the institutions and students practice digital education.

Chart no 5 showing if the respondents have experienced digital education

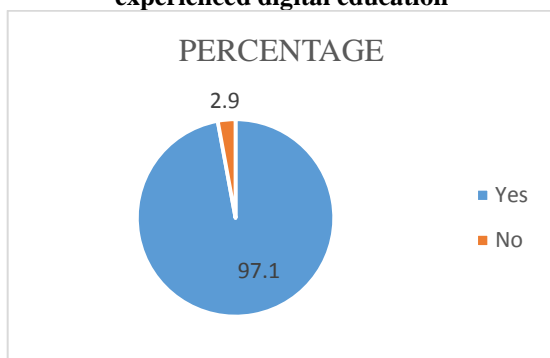


Table no 6 showing the respondents' usage of digital education

Response	Percentage
Only learning through PPTs and other presentation	59.8
Only by using digital aids (mobile, computer etc.)	18.6
To a great extent	21.6

The above table is an analysis of the extent to which students have experienced digital education. 59.8%

of the students have experienced digital education from learning through PPTs and other forms of presentations, 21.6% of students have experienced digital education to a great extent and only 18.6% of the students have experienced digital education by using digital aids both in the form of learning and using. Therefore it can be inferred that the majority of students have experienced digital education only by learning through PPTs and other presentations.

Chart no 6 showing the respondents' usage of digital education

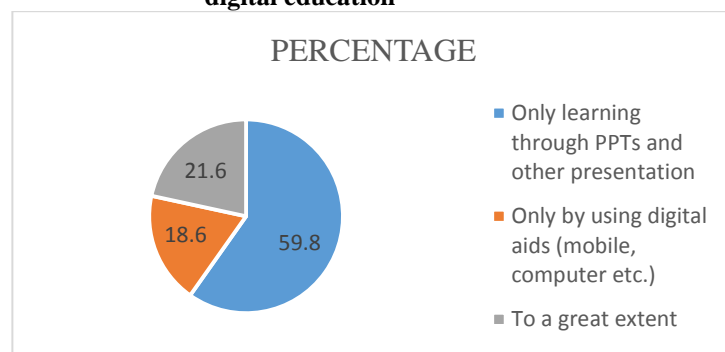


Table no 7 showing the effectiveness of digital learning in comparison with traditional learning

Response	Percentage
Very effective	50.5
Effective	49.5
Not effective	0

The above table is the study on effectiveness of digital learning in comparison with traditional learning. 49.5% of respondents' feel it is effective and 50.5% of the respondents' feel digital learning is very effective. Therefore it can be inferred that the majority of respondents feel digital education is very effective, but there are remaining students who feel both digital and theoretical learning is effective.

Chart no 7 showing the effectiveness of digital learning in comparison with traditional learning

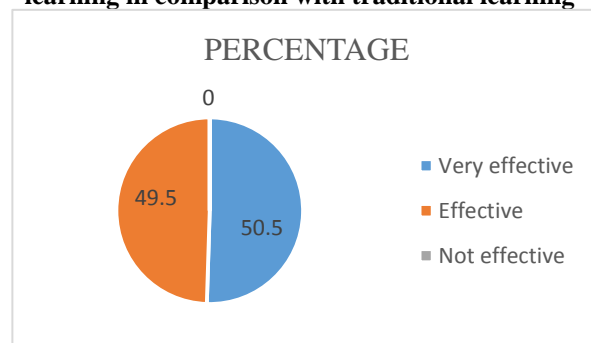


Table no 8 showing the necessity for digital education in current education era

Response	Percentage
Yes	86.2
No	6.7
May be	7.1

The above table explains the importance of digital education in current education era. The table states that 86.2% of the students feel digital education is necessary in current education era, 6.7% feel there is no necessity for digital education in current education era, but 7.1% of the students are confused if there is necessity for digital education in current education era. Therefore it can be inferred that the majority of students have realised importance of digital education in current education, but there are few students who are in dilemma if there is necessity for digital education.

Chart no 8 showing the necessity for digital education in current education era

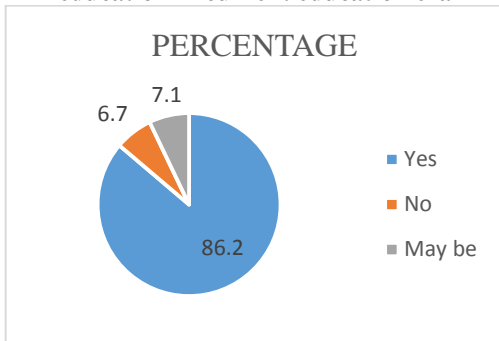


Table no 9 showing the ineffectiveness of digital education

Response	Percentage
Lack of knowledge about digitalization	25.9
Lack of knowledge about the usage of digital devices or tools	44.4
Hesitation from students to adapt to digitalization	3.7
Convenience in classroom lecture	25.9

The above table states the reasons for ineffectiveness in digital education. 44.4% of the respondents feel digital education is ineffective due to lack of knowledge on usage of digital devices or tools. 25.9% of respondents feel digital education is ineffective due to lack of knowledge on digitalization. 25.9% are convenient in classroom lecture and remaining 3.7% students feel hesitant in adapting to digitalization, which is the reason for ineffectiveness in digital learning. Therefore it can be inferred that majority of the respondents feel lack of

knowledge and usage of digital tools are the reasons of the ineffectiveness in digital education.

Chart no 9 showing the ineffectiveness of digital education

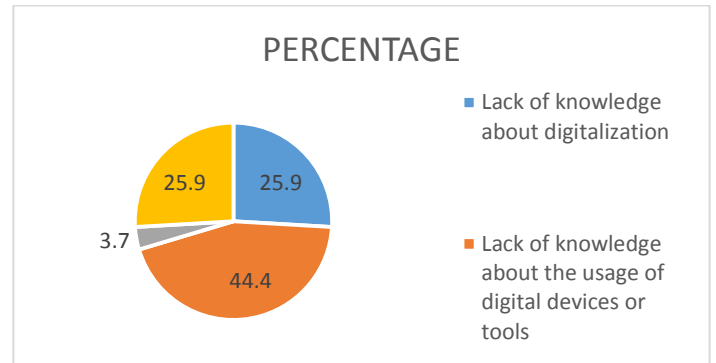


Table no 10 showing the adaptation of digital learning at respondents' institutions

Response	Percentage
Yes	86.7
No	13.3

From the above table it is clear that there are institutions who practice digital learning. 86.7% of the institutions are practicing digital learning, whereas remaining 13.3% of the institutions have still not adopted digital learning. Therefore it can be inferred that majority of the institutions have adapted to digital learning, and the institutions who aren't adaptive to digitalization should be focused.

Chart no 10 showing the adaptation of digital learning at respondents' institutions

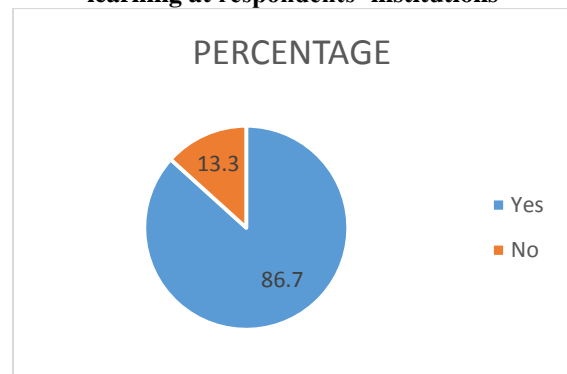


Table no 11 showing the digital learning tools adapted by respondents' institution

Response	Percentage
Social networks	41.9
Usage of visual reality	30.5
Online games and quiz	5.7
Usage of animoto	2.9
Others	19

The above table is the representation of tools adopted by the institutions in teaching students through digitalization. 41.9% of the students have experienced digital learning through social media at their institutions. 30.5% of the institutions use visual reality as a tool for digital learning. 5.7% and 2.9% of the students have learned through online games/quiz and usage of animotos, the remaining 19% of the students have used other tools in digital learning. Therefore it can be inferred that most of the institutions use social networks and visual reality as digital learning tools, but there are still many institutions who aren't using digital tools like quiz, online games, animotos etc. which can help to grab students' interest.

Chart no 11 showing the digital learning tools adapted by respondents' institution

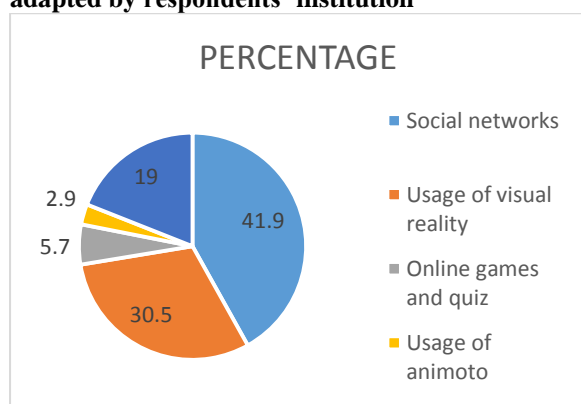
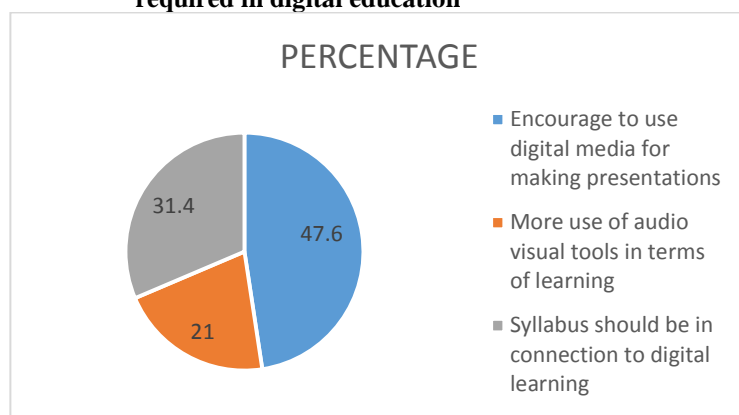


Table no 12 showing the area of improvement required in digital education

Response	Percentage
Encourage to use digital media for making presentations	47.6
More use of audio visual tools in terms of learning	21
Syllabus should be in connection to digital learning	31.4

The above table shows the area of improvement required in digital education. 47.6% of the students feel they should be encouraged to use digital media for making presentations, 31.4% feel the syllabus should be in connection to digital learning and remaining 21% feel there should be more usage of audio visual tools in terms of learning. Therefore it can be inferred that students prefer there should be improvement in the field of digital education, such as encouragement by the institutions in using digital media for presentations, to add syllabus in connection with digital learning and usage of audio visual tools in terms of learning.

Chart no 12 showing the area of improvement required in digital education



SUMMARY OF FINDINGS

1. From the study it is clear that majority of the students are aware about digital education and its impact on their future.
2. The respondents feel both learning and spreading of knowledge via computer, internet, mobile phones etc. is digital education.
3. Majority of the institutions and students practice digital education which shows the development in teaching and learning in the field of education.
4. Most of the students have experienced digital education only by learning through PPTs and other presentations, which clearly says there is lack of usage of other digital tools in enhancing their knowledge.
5. Majority of respondents feel digital education is very effective, but there are remaining students who feel both digital and theoretical learning is effective.
6. The students have realised the importance of digital education in current education, but few students who are in dilemma if there is necessity for digital education, which is the reason for ineffective learning.
7. Most of the institutions have adapted to digital learning this shows a positive impact.
8. Most of the institutions use social networks and visual reality as digital learning tools, but there are still many institutions who aren't using digital tools like quiz, online games, animotos etc. which can help to grab students' interest.
9. The students prefer there should be improvement in the field of digital education, such as encouragement by the institutions in using digital media for presentations, to add syllabus in connection with digital learning and usage of audio visual tools in terms of learning.

CONCLUSION

This study was undertaken to analyse the concept of digital education as perceived by students of higher education. Digital education is a new concept especially in India, which is of let experiencing the internet evolution. Although many institutions of higher learning have obtained and implemented various digital media for the benefit of instructors and students, there is still a lot that needs to be done. Most people still feel that digital learning is restricted to downloading materials from the net or making use of PPTs. Both students and instructor need to be trained or educated on the effective use of digital media. Institutions also must install and upgrade their resources to meet the need. In the light of this study the following recommendations can be given.

RECOMMENDATIONS

1. From the study on digital transformation in education, it shows that 7.7% of the students are in the state of confusion if they are being provided education in digital form or if it is traditional form of learning. We would recommend/suggest the institutions to provide clarity in the teaching methods used by institutions.
2. The students have realised the importance of digital education in current education system, but there are a few students who are in dilemma if there is necessity for digital education. we recommend the students to be technically equipped as it is the need of the hour which is possible mostly in the form of digital education
3. The students prefer improvements in the field of digital learning as a lot of colleges restrict themselves to only teaching through ppts and other presentations we recommend the institutions to use various other digital tools like quiz, online games, animotos so as to grab the interest of the students and expand the horizons of learning.

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