

**A STUDY ON EMERGING TECHNOLOGY TO ADDRESS THE CHALLENGES OF 21ST  
CENTURY LEARNERS**

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**ABSTRACT**

*A study On “Emerging technologies to address the challenges of 21st century learners”. The objectives of this study are to understand the challenges of 21st century learners and find out if technology can be used to overcome the problems. The primary data would collect to know the challenges faced by the learners, the techniques which they utilize to solve the problem they face. Based on the findings suitable suggestions can be listed. The study will also include information on awareness level and initiative taken by the government and private players in promoting E- learning apps like Swayam and Byju’s. The information gathered would be added to the available literature on how technology can be utilized to overcome the limitations in the process of learning.*

*[Key words – Emerging technology, 21<sup>st</sup> century learners, Challenges, E-learning apps]*

**INTRODUCTION:** Education is the most valuable key and tool to success. The power and strength of education is not only in academic knowledge but also acquiring life experience .The Education is a process which consist of facilitating, learning or acquisition of knowledge, skill , values , beliefs and habits . There are lot of methods involved in education some of the methods are as simple as storytelling, discussion, teaching, and research.

.. Education plays a major role in solving all the different types of problem. faced by an individual .Globalization in India has brought so many changes in all fields, Traditional teaching and learning method is replaced by E learning method which is nothing but digital class room . The 21st century Education is different from traditional education .In the 21<sup>st</sup> century education system the teachers and the students have higher objectives, goals and targets. Hence changes in teaching and learning method are necessary

as it helps in reaching the higher targets. The 21st century education requires the 4C's [4 skills] i.e. creativity, critical thinking, communication and collaboration on the part of the teachers and the learners. Technology helps to acquire the above mentioned skills required for the students as well as the teachers. India has experienced many changes in the field of education. Many technological reforms and changes in the education have introduced lot of e-learning organisations like Byju's, Vedhanthu, Swayam, Google classroom etc. . The e-learning app introduced by these companies have totally changed the process and procedure of education in India .

In the 21 century the teachers and the students both face lot of challenges this paper is directed towards the listing of challenges faced by the learners .The Education system is governed by the government. Policies, the system followed by the Educational Institutions and the Technology utilised for the purpose of teaching and learning.

The 21st century learner is different from the traditional learner in many ways .The new features that are observed In the 21st century learners are : self-directed learner, globally aware , a communicator, an innovator, financially and economically literate, civically engaged, a problem solver, a collaborator, information and media literate and a critical thinker.

The skills required in the 21st century learners to meet the challenges are ; Critical thinking , Creativity ,Collaboration , Communication Information literacy Media literacy Technology literacy Flexibility Leadership Initiative , Productivity , Social skills . These skills would help students keep up with the fast - pace of today global changes.

**REVIEW OF LITERATURE;** there is lot of investigation and research that has happened in the field of e learning and how e learning helps to meet various challenges of modern education. Following are the literatures that were referred for the study .

- 1) Topic -Educational issues and challenges the 21<sup>st</sup> century in India- Author; Vidysagar yadav  
[<http://www.researchgate.net.com>.]

The Author opines that :In 21 st century educational leader and teacher play positive role and create such environment which will able to cope with issue and challenges, where student will learn by doing .The education system will meet the current demands of students and globalized world, education will be valuable for all students to succeed .

2) Topic 21st century challenges in teaching learning (ICT in higher education)- Author ; Muhibbah haque Bhuyan.

The Authors opines that the impact of ICT on education has definitely posed challenges to teachers to improve their teaching. As educators they must -•Firstly, decide their goals and objectives based on educational approaches that integrate ICT. The goals must be in line with the changes in education and the learning environment of the students. Preparedness for the impact of ICT on pedagogy requires sufficient knowledge and skills.

3) Topic; 21<sup>st</sup> century skills to challenges ahead- Authors Rotherham and Daniel Willingham [<http://www.ascd.org>]

The Authors opines that there is a Better Curriculum and Better Teaching ways to meet the modern education challenges of. Today's reformers can build on that progress only if they pay keen attention to the challenges associated with genuinely improving teaching and learning. If we ignore these challenges, the 21st century skills movement risks becoming another fad that ultimately changes little—or even worse, sets back the cause of creating dramatically more powerful schools for U.S. students, especially those who are underserved today.

4) Topic: 21<sup>st</sup> century challenges learning (Re) imagined- medium. (<http://www.medium.com>) .....

The Authors opines that after researching, thinking and reaching out to some of the world's most brilliant theorists, scientists and industrialists suggests that , it is these challenges that we need to be working on together and ensuring our children everywhere are equipped with the knowledge and skills to meet them. 5)

Topic: The critical 21<sup>st</sup> century skills every students needs and why. ([http://www. Wabsabilearning.com](http://www.Wabsabilearning.com)) .

The author opines that Problem solving, Creativity, Analytic thinking, Collaboration Communication, Ethics, action, and accountability are useful to solve all the challenges of the 21<sup>st</sup> century.

**RESEARCH DESIGN:**

Research design is the blue print of various components of a study and assimilation of the Data collected in a coherent and logical way ensuring that the research problem is addressed. Research Design consist of the following components

**STATEMENT OF PROBLEM :** The education system has faced many challenges from the last 25 years ,the teachers and students have tried to overcome the challenges by using various methods .one of the method is to use technology .The focus of this paper is to understand the impact of technology to overcome the problems in the process of learning.

### **OBJECTIVES OF THE STUDY**

To understand the challenges of 21st century students.

To understand whether technology can be used to meet or overcome the challenges of 21t century students.

To provide findings and conclusions towards meeting the challenges.

### **SOURCES OF DATA COLLECTION**

Primary Source: Structured Questionnaire.

Secondary Source: Available published data.

### **RESEARCH METHOD**

A Descriptive research method is used during the survey; Primary data was collected with help of questionnaire.

### **SCOPE AND LIMITATION OF THIS STUDY.**

The survey is based on 138 respondents.(learners)

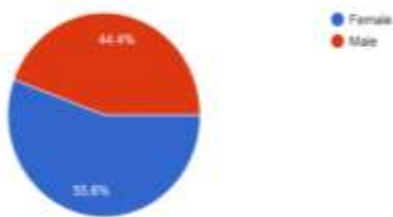
The data has been collected within period of 4 days.

The random sample taken in this study is limited to Bangalore city.

The study focus only on UG and PG students and challenges they face as learners.

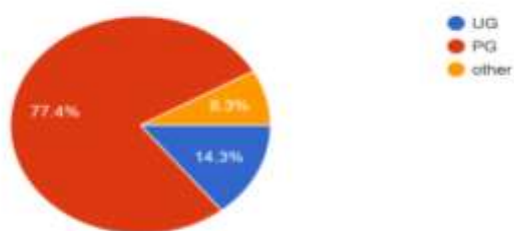
**DATA COLLECTION:** Data was collected from 138 respondents with the help of a structured questionnaire. The questions were framed to collect the respondent's opinion on the challenges of the 21st century learners and also to collect their opinion on meeting those challenges with the e learning techniques .In the study we have also tried to understand the awareness about the different e learning apps available in the market.

- 1) The Diagram showing the number of male and female respondents.



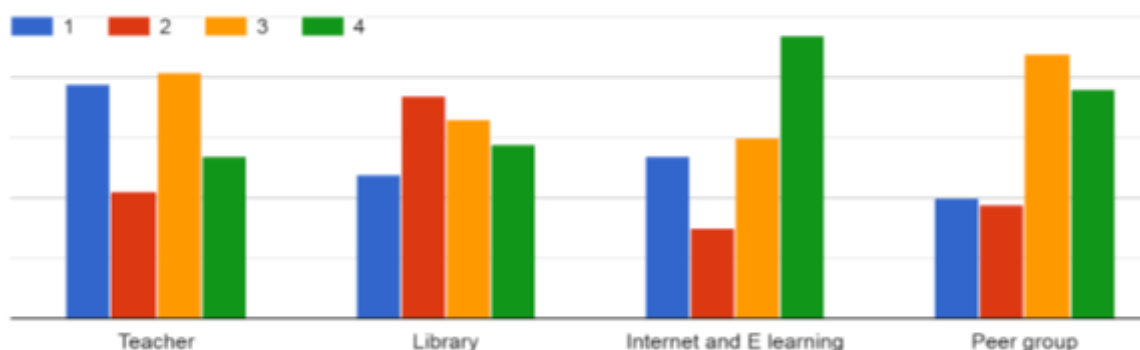
ANALYSIS AND FINDING: Out of the total respondents 44.4% are male and 55.6% are female.....

2) The diagram showing number of UG and PG students respondents.



ANALYSIS AND FINDING: Out of the total respondents 77.4% are PG students and 14.3% are UG students ,8.35 are others....

3) The Diagram showing the Sources from where the respondents collect information



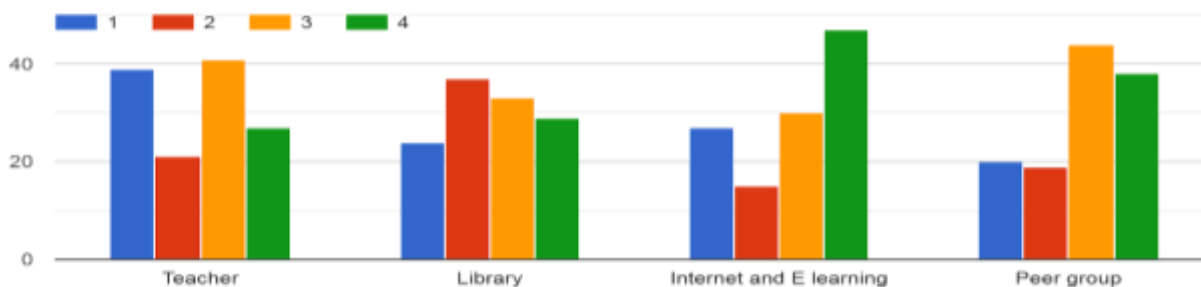
ANALYSIS AND FINDING:

39 learners prefer collecting information from the teacher

23 learner prefer collecting information from the library.

20 learner prefer collecting information from the peer group.

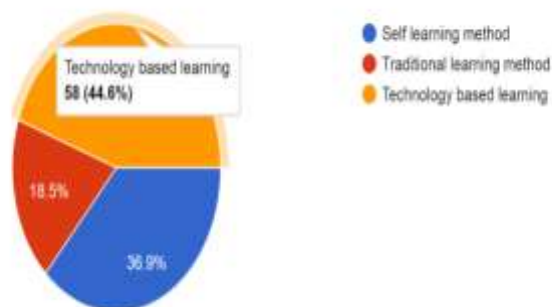
4) The Diagram showing the Sources from where the respondents collect information.



**ANALYSIS AND FINDING:**

The Learners were asked to rate their preference for the source of learning and the maximum learners have opted and given high rates to internet E learning the next preference is peer group followed by the teacher and last was library.

5) The diagram showing the type of learning methods preferred by the learners.

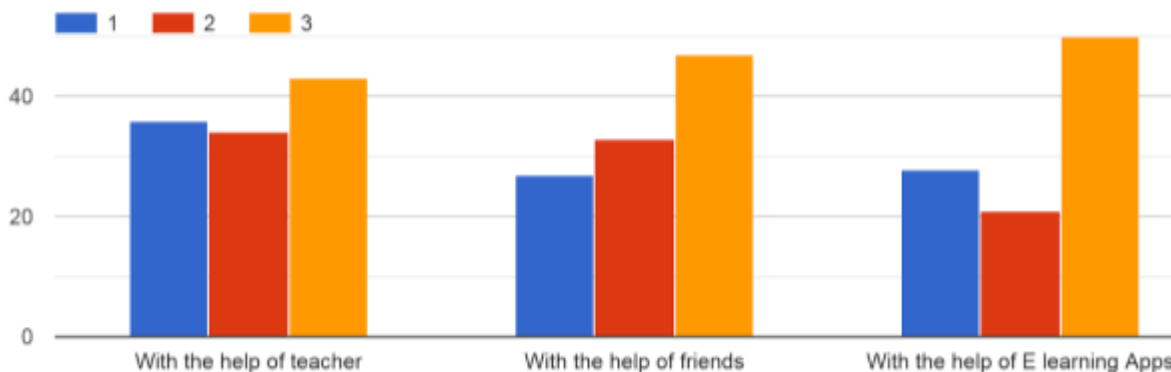


ANALYSIS AND FINDING: 44.6% of the learners prefer technology based learning.

36.9% of learner prefer self-learning and

18.5% of learners prefer traditional learning.

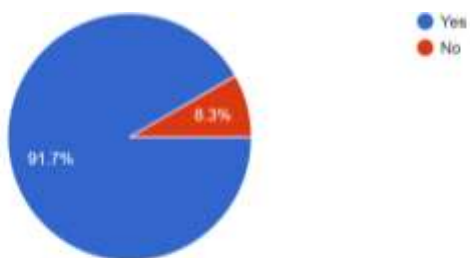
6) The diagram showing the way learner solves the problem in the class or academics.



**ANALYSIS AND FINDING:**

The learners have preferred all the alternatives for solving their class room problems and challenges in different percentage.

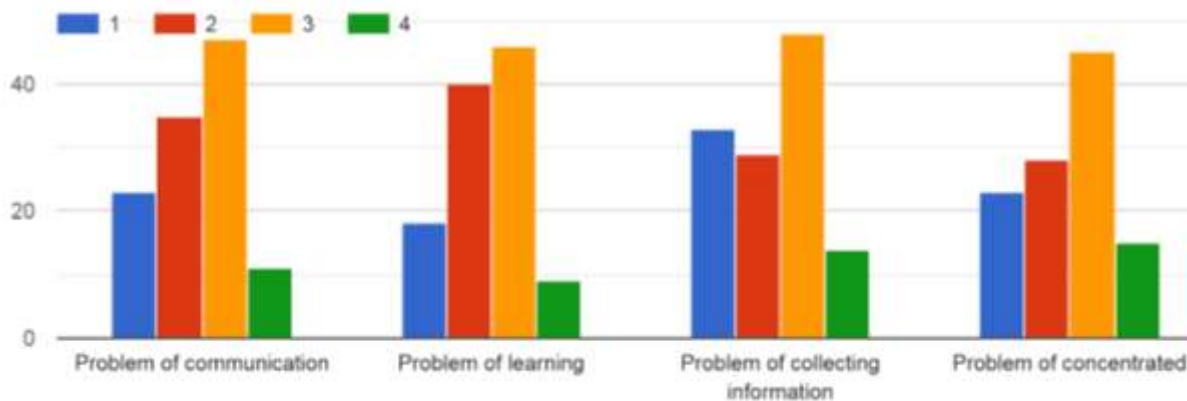
7) The diagram showing whether technology helps in solving the problems of the learners.



**ANALYSIS AND FINDING:**

91.7% of learners have preferred use of technology to solve their problems and a few 8.3% of learners feel that technology does not help them to solve their problems.

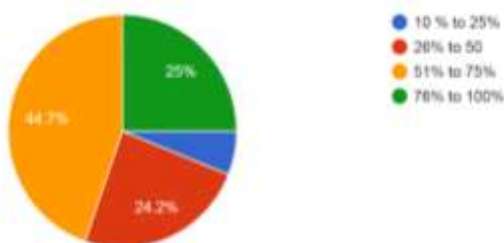
8) The Diagram showing the different problems that can be solved using technology .according to the learners



**ANALYSIS AND FINDING:**

The response which we have got for this question is a mixed one; the learners have rated in a different ways. The majority of the learners feel that the maximum problem can be solved by the technology and the technology, also helps in the collection of information solves, problem in leaning, and also cater to the problem of communication and concentration.

9) The Diagram showing the contribution of technology in academic performance of the learners.



**ANALYSIS AND FINDING:**

44% learners have opined that the technology has helped them to an extent of 51% to 75% to improve their academic performance.

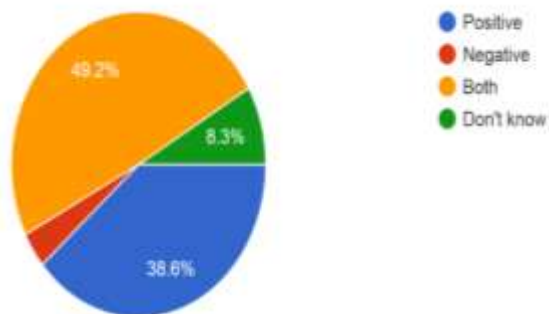
25% of the learners have opined the technology has helped them to an extent of 76% - 100%,

24% learners have opined that technology has helped them to an extent of 26% to 50% to improve their academic performance.



. 6.1% learners have opined that technology has helped them to an extent of 10% to 25% to improve their academic performance.

10) The diagram showing the effect of technology on the mental health of the student.



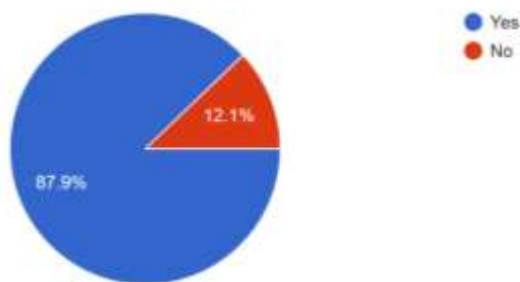
**ANALYSIS AND FINDING:**

38.6% respondents have opined that technology has positive effect of on their mental health.

. 4.9% respondents have opined that technology has negative effect of on their mental health.

49.2% respondents have opined that technology has positive and also negative effect of on their mental health.

11) The diagram showing recommendation of the learner towards having smart class room for their age group of learners.

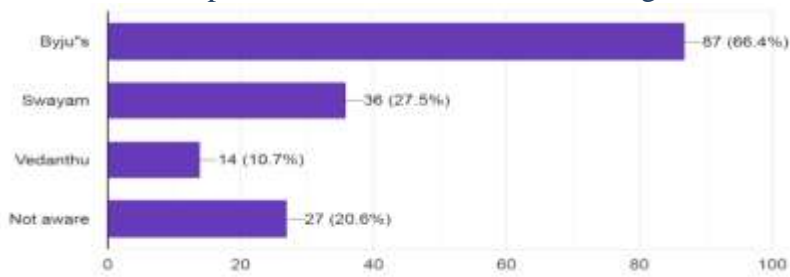


**ANALYSIS AND FINDING:**

87.9% of the respondents have suggested for a smart class.

12.1% respondents have not recommended for smart or digital class room.

12) The diagram showing awareness about different E –learning apps available in the market.



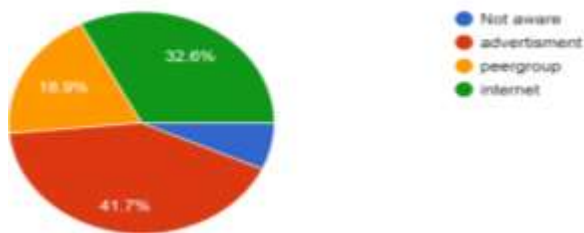
**ANALYSIS AND FINDING:**

66.4% of learners are aware about BYJUS

27.5% of learners are aware about SWAYAM,.

10.7% of learners are aware about Vedantu, 20.6 % are totally not aware about the availability of the E-learning apps.

13) Diagram showing the sources from where the learners got information about the E-learning apps.



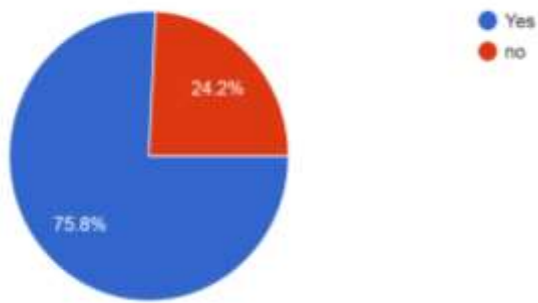
**ANALYSIS AND FINDING:**

41.7% got to know through advertisement.

, 32.6% are from the internet, and.

18.9% from the peer group.

14) Diagram showing the preference of use of e learning apps.

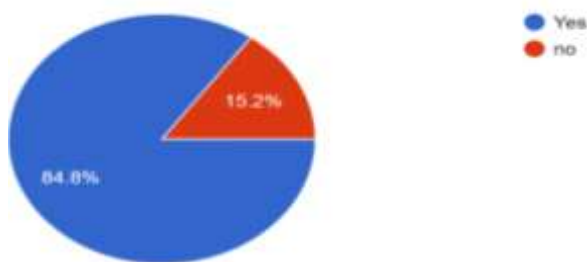


**ANALYSIS AND FINDING:**

75.8 %of learners would continue use of E-learning apps.

24.2% of respondents would not like to use in future.

15) Diagram showing the recommendation by the learner to the others.



**ANALYSIS AND FINDING:**

84% learners would recommend E-learning apps.

15.2%learners would not recommend to others.

**CONCLUSION:** On the bases of the data analysis and findings we can conclude that ,the learners do not have a specification on the source of collecting information they sometimes approach their teacher or the internet or their , friends and the library to update themselves which means that they use all the sources as per their convenience , .likewise the learners opinion also differs when they are asked their choice of learning i.e. modern method or traditional method or both . Mixed opinion of the learners show that, there no standard method that works all the time for all the learners to meet their challenges

.The Government, the Education System and the Educators (the education institutes and teachers) should come together to address the problems and challenges of the 21st century learners. One thing is for sure that the challenges should be addressed by all those who are involved in the education process because if

the challenges are left un addressed our future generation will not be competent enough to sustain themselves and will not be able to meet the competition in the world.

The current Education System cannot utilise only Modern or only Traditional methods but it should be a combination of both, The education institutes should have proper policies and should provide proper training to their teachers On effective use of technology, so that they combine the different techniques of teaching and make sure that the learners are effectively learning and that they are not facing any problems during the process of learning. In the similar way necessary awareness should be created about the availability of the modern e learning apps which also supports effective learning amongst the young learners.

**REFERENCES:**

- 1) *Topic -Educational issues and challenges the 21<sup>st</sup> century in India- Author; Vidysagar yadav [http://www.researchgate.net.com.]*
- 2) *Topic ; 21<sup>st</sup> century challenges in teaching learning (ICT in higher education)- Author ; Muhibbah haque Bhuyan*
- 3) *3) Topic ; 21<sup>st</sup> century skills to challenges ahead- Authors Rotherham and Daniel Willingham [. http://www.ascd.org ]*
- 4) *Topic: The critical 21<sup>st</sup> century skills every students needs and why. (-http //www. Wabsabilearning.com)*
- 5) *Topic : 21<sup>st</sup> century challenges learning (Re) imagined- medium ( (http://www.medium.com ) Author: Graham-brown Martin*