# Awareness on E-learning as an emerging tool in self paced study for higher education in science and its provisions curriculum

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**Abstract -** Education plays a vital role in the development of any nation. Higher education is a powerful instrument for creating knowledge and information based society. The mission and vision of higher education is to educate, train and to undertake research activities and service to the community. Higher education is nothing but the production and dissemination of knowledge. Therefore the higher education is to be best in quantity and quality. The present article reveals about the modification in teaching and learning practice and its utility in improving the slow learner students in the institutes. E - learning tools can be a good teaching and learning practice in the higher education systems especially in science area. There is need to recommend and include the various methods of learning tools in the education sector, so that there will be an alternative for learning practice for students.

*Keywords* : E – learning, Education, slow learner

## I.     INTRODUCTION

Education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development. Education thus, must move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields. Pedagogy must evolve to make education more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible, and, of course, enjoyable. The curriculum must include basic arts, crafts, humanities, games, sports and fitness, languages, literature, culture, and values, in addition to science and mathematics, to develop all aspects and capabilities of learners, and make education more well-rounded, useful, and fulfilling to the learner.(singh, 2017)

Given the 21st century requirements, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals. It must enable an individual to study one or more specialized areas of interest at a deep level, and  also  develop character, ethical and constitutional values, intellectual curiosity, scientific temper, creativity, spirit of service, and 21st century capabilities across a range of disciplines including sciences, social sciences, arts, humanities, languages, as well as professional, technical, and vocational subjects.

A quality higher education must enable personal accomplishment and enlightenment, constructive public engagement, and productive contribution to the society. It must prepare students for more meaningful and satisfying lives and work roles and enable economic independence.

As per New Education Policy 2020 "Institutions will have the option to run Open Distance Learning (ODL) and online programmes, provided they are accredited to do so, in order to enhance their offerings, improve access, increase GER, and provide opportunities for lifelong learning (SDG 4). All ODL programmes and

their components leading to any diploma or degree will be of standards and quality equivalent to the highest quality programmes run by the HEIs on their campuses. Top institutions accredited for ODL will be encouraged and supported to develop high-quality online courses. Such quality online courses will be suitably integrated into curricula of HEIs, and blended mode will be preferred".

In the classrooms faculty have to deal with different types of students; some are very intelligent who learn very fast and some are quite weak who learn very slowly. Therefore it is required to determine the abilities of the students in the class. Based on the ability determined, some students need only guidance and some students need a hard work and regular attention. On the basis of their preceding exam performance, current subject performance and class observation, learning speed students can be classified in two groups; advanced learners and slow learners. Each type of students has different learning attitudes and learning habits. A faculty has to adapt a teaching methodology such that he/she may not lose the attention of the slow learners and turn off the advanced learners. (International institute of information technology, 2017)

The purpose of assessment of the learning levels of the students and conduction of activities for them is

- Identification of the slow learners and advanced learners in the class
- To ensure that slow learners and advanced learners are taken care as per their needs.
- To help them out for improvement in their academics.
- Assessment of the learning levels of the students:
- Slow learner and advanced learners would be identified for each subject separately by respective subject teacher for all the semesters.
- Process to identify of slow learners and advanced learners would be conducted immediately after declaration of preceding semester university exam result or after one month of teaching in case of FE (SEM I).
- Every subject teacher should conduct class test / online objective type test of their subject on syllabus covered till date or on first unit of 20 marks and duration of one hour to identify slow learners and advanced learners
- Slow and advanced learners are identified based on following parameters and their weightage.

| Sr no. | Parameter | Weightage in Percentage |
|---|---|---|
| 1 | Marks obtained by student in objective type test /class test / unit test conducted for respective subject | 50% |
| 2 | Academic performance of students in preceding university examination | 25% |
| 3 | Subject teacher observation | 25% |

For parameter no. 3 every subject teacher should assess each student on scale of 1 to 10.

- Based on above parameter a report would be prepared for whole class for total 100%.
- The student securing marks below 40% would be identified as Slow Learners and the student securing marks above 70 % would be identified as Advanced Learners.
- After that separate list are prepared for both type of learners for further monitoring and conduction of problem solving sessions /revision sessions for them.
- With limited time available in the classroom, e-learning tools can supplement in-class learning by providing opportunities for students to study and learn outside of class. Such tools can be especially helpful for students who lack adequate prior preparation. However, one critical issue is ensuring that students, especially those in need of additional help, engage with the tools as intended. (Marshman *et. al*., 2020).

## II.        METHODS OF DATA COLLECTION

The data was collected through questionnaire made in Google form and the link was distributed to undergraduate and post graduate students of Science departments in one of the colleges affiliated to RTMN University.

Questionnaire
1.  Have you enrolled in any self paced study program
    a)  Yes  b) No

2. Do you feel that physical absence of teacher will decrease in your attention for learning your subject
a) Yes b) No

3. Are you driven by self motivation in terms of your studies
a) Yes b) No

4. How does competition with your friends in terms of study and results affect your performance in studies
a) It enhances your performance
b) It lessen your performance
c) It has no effect on your performance

5. How often you refer to pre recorded classes through online sources for concept you missed in classroom teaching.
a) Most often
b) Less often
c) Rarely

6. Are you aware about any credits or benefits on completing any certificate course related to your curriculum ( course under study) during your academic year
a) Yes I am aware about it in detail
b) I have some knowledge about it
c) I have no knowledge about it

7. Do you think that the current options for online learning resources available are too costly
a) Yes b) No c) I have no idea about it

8. Do you prefer going to coaching classes apart from regular college
a) Yes b) No

9. You categorize yourself as
a) Advanced learner
b) Average learner
c) Slow learner

10. Are you able to follow your regular classroom teaching in your college
a) To a great extent

b) To a less extent

11. How often you attend your college classes
a) Most often
b)Less often
c) Rarely

12. Does your teachers give special attention to meet your learning needs
a) To a great extent
b) To a less extent

### III.    RESULTS

From the above survey questionnaire of 12 questions asked to 460 students through Google forms revealed the following survey data results.

91% of students responded yes about their enrolment to the self paced study program while 8.8% responded less. 64.5% of students responded yes about decrease in their attention while learning their subject if teacher is absent while 35.5% responded negative answer. 47.1% responded yes about self motivation with respect to studies while 52.9% responded negative answer. Competition among students in terms of study and results enhances the performances of 47.9% of students, 20.1% students performance is lessen and 32% students have no effect. 33% students most often refer to pre recorded online classes for missed concepts while 28.8% less often and 38.1% rarely prefer. 33.3% of students are aware of benefits of certificate course related to their curriculum while 45.3% students have some knowledge and 21.3% students have no knowledge. 24.7% students responded yes about the online learning resources available are too costly while 39.1% responded no and 36.2% have no idea. 27.9% students prefer for going to coaching classes apart from regular college while 72.1%    responded negative answer. 24.6% students categorized themselves as advanced learner, 68.9% categorized as average learner and 6.6% categorized as slow learner. 78.7% of students are able to follow their regular classroom teaching in their college to great extent while 21.3% follow to less extent. 76.9% students most often attend their college classes, 13.2% students less often and 9.9% students rarely attend their classes. 79.2% students responded that their teachers give special attention to meet their learning needs to a great extent while 20.8% students responded negative answer.
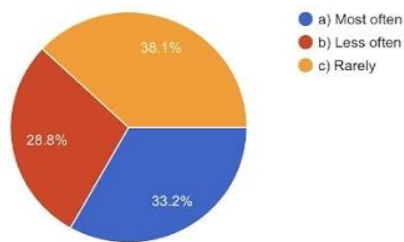
1. Are you driven by self motivation in terms of your studies ?
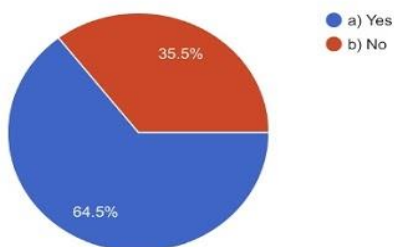
456 responses
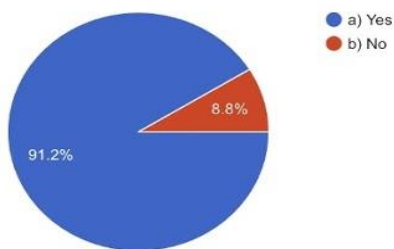


- a) Yes
- b) No

91.2%  8.8%

5. How often you refer to pre recorded classes through online sources for concept you missed in classroom teaching.?

452 responses



- a) Most often
- b) Less often
- c) Rarely

38.1%  28.8%  33.2%

2. Do you feel that physical absence of teacher will decrease in your attention for learning your subject ?

454 responses



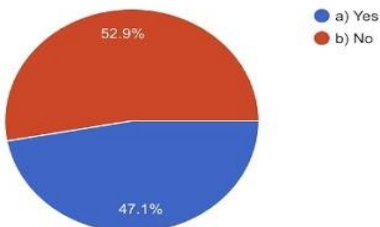- a) Yes
- b) No

35.5%  64.5%

6. Are you aware about any credits or benefits on completing any certificate course related to your curriculum ( course under study) during your academic year?
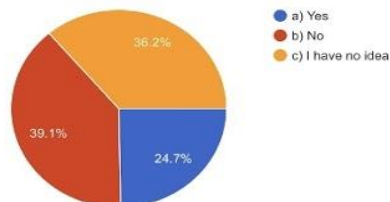
450 responses



- a) Yes I am aware
- b) I have some kr
- c) I have no know

21.3%  45.3%  33.3%
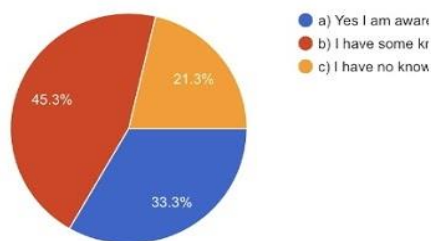
3. Have you enrolled in any self paced study program?

452 responses



- a) Yes
- b) No

52.9%  47.1%
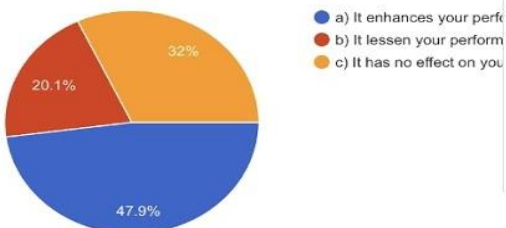
7. Do you think that the current options for online learning resources available are too costly?

453 responses



- a) Yes
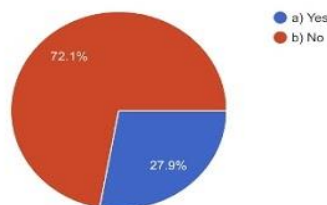- b) No
- c) I have no idea

36.2%  39.1%  24.7%

4. Does competition with your friends in terms of study and results affect your performance in studies ?

453 responses



- a) It enhances your perfo
- b) It lessen your perform
- c) It has no effect on you

20.1%  32%  47.9%

8. Do you prefer going to coaching classes apart from regular college?

456 responses



- a) Yes
- b) No

72.1%  27.9%

**9. You categorize yourself as ?**

456 responses

- a) Advanced learner
- b) Average learner
- c) Slow learner

68.9%

6.6%

24.6%

**11. How often you attend your college classes ?**

455 responses

- a) Most often
- b)Less often
- c) Rarely

13.2%

9.9%

76.9%

**10. Are you able to follow your regular classroom teaching in your college?**

455 responses

- a) To a great extent
- b) To a less extent

21.3%

78.7%

**12. Does your teachers give special attention to meet your learning needs?**

453 responses

- a) To a great extent
- b) To a less extent

20.8%

79.2%

## IV.     DISCUSSION AND CONCLUSION

Many leading institutions are running online certificate courses through various platforms but are not being encouraged just because it does not reflect to students academic results and also the faculties are not being acknowledged for encouraging the students to undertake such courses. There is a need to conduct awareness programme for such course and make suitable implementation in the curriculum students and faculties to encourage such programmes.

Categorising students as slow and advanced learner affect on their self-esteem. Students are diverse and diverse are their needs for learning. A teacher may sometimes make mistakes in classifying students as slow and advanced. Thus the practice of classifying students as slow and advanced should be replaced by allowing them opt for self-paced study program according to their suitability. Students may not engage effectively with self-paced learning tools unless they are provided additional incentives and support, e.g., to aid with self-

regulation. Inspired by the empirical findings, we propose a holistic theoretical framework to help create learning environments in which students with diverse backgrounds are provided support to engage.

## V.    REFERENCES

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