A Comparative Study on Online Training and Class Room Training among Engineering Students in Chennai

Vetrivel Shanmugam[1] and A.A. Ananth[2]

[1] Research Scholar, Sathyabama University, Chennai, Tamil Nadu, India.
[2] Professor, Sathyabama University, Chennai, Tamil Nadu, India.

Abstract: *Background/ Context*: Due to technology Teaching learning method has advanced to go online as it got its own advantage of teaching from anywhere and learning from anywhere as per their time schedule, choice of place, etc., moreover the technology got its power to bring knowledge a click away to the screen.

Focus of the study/ Purpose: The study focus on comparing the contemporary classroom teaching learning method and the advanced technology based online method among engineering students in Chennai Area.

Population/ Participants/ Subject of the study: The study was conducted among the students of engineering colleges in and around Chennai aging between 18 to 24.

Research Design: The simple random sample was used to collect the response. The students of B.E and B.Tech were taken in to account for participating in the study. 5 Deemed universities, 50 affiliated colleges were approached. There are 5000 Questionnaires were distributed among the students, but 4200 respondents were returned the questionnaire and 3700 Questionnaires were only completed and rest 500 questionnaires were incomplete hence 3700 samples only taken into account for the analysis.

INTRODUCTION

Internet learning has established in the custom of instruction, which backpedals no less than 100 years to the early correspondence courses. With the approach of the Internet and the World Wide Web, the potential for achieving learners around the globe expanded enormously, and today's web-based learning offers rich instructive assets in numerous media and the ability to bolster both ongoing and no concurrent correspondence amongst teachers and learners and additionally among various learners. Organisations of advanced education and corporate preparing rushed to receive internet learning. Albeit Indian instruction frameworks lingered behind at to start with, this current segment's reception of e-learning is presently continuing quickly.

Web-based learning has turned out to be mainstream in light of its potential for giving more adaptable access to substance and direction whenever from wherever. Regularly, the concentration involves expanding the accessibility of learning encounters for learners who can't or pick not to go to conventional up close and personal offerings, gathering and dispersing instructional substance more cost effectively, or empowering educators to deal with more understudies while keeping up learning result quality that is equal to that of equivalent eye to eye direction.

Distinctive innovation applications are utilised to bolster diverse models of internet learning. One class of internet learning models utilises non-concurrent specialised instruments (e.g., email, strung talk sheets, newsgroups) to permit clients to contribute whenever it might suit them. Synchronous advancements (e.g., webcasting, visit rooms and desktop sound/video innovation) are utilised to rough vis-à-vis showing methodologies, for example, conveying addresses and holding gatherings with gatherings of understudies. Prior online projects tended to execute one model or the other. Later applications tend to join numerous types of synchronous and offbeat online cooperation and in addition intermittent eye to eye connections.

Moreover, web-based learning offerings are being intended to upgrade the nature of learning encounters and results. One basic guess is that taking in a mind-boggling assortment of information adequately requires a group of learners (Bransford, Brown and Cocking 1999; Riel and Polin 2004; Schwen and Hara 2004; Vrasidas and Glass 2004) and that online innovations can be utilised to extend and bolster such groups. Another guess is that nonconcurrent talk is intrinsically self-intelligent and subsequently more helpful for profound learning than is synchronous talk (Harlen and Doubler 2004; Hiltz and Goldman 2005; Jaffee et al. 2006).

SURVEY OF LITERATURE

Researchers have laid ingots of proof proposing there is no distinction in online versus disconnected understudy execution in light of understudy statistic attributes (Huh et al., 2010).In assessing understudy execution in view of understudy finishing rates of materials, Olson (2002) discovered inadequate confirmation to show that online versus disconnected conveyance is a variable affecting an understudy's consummation of his or her coursework. Others discovered lower understudy execution in online classes (e.g., Trawick, Lile and Howsen, 2010), while some even discovered higher learning in an online organisation (e.g., Detwiler, 2008). In an examination of customary and half-breed segments of Principles of Marketing, Priluck (2004) found no distinction in execution, yet huge contrast in understudy fulfillment.

As innovation keeps on planting its way into all instructing and learning techniques, examinations uncover a steady utilisation of the expression "execution." Performance seems universal unless generally expressed by agents, as "surveyed toward the finish of the course" by the understudy's "last check," also called the course review (Bliuc et.al., 2010; Olson, 2002). A different method for characterising understudy execution incorporate utilising understudy test scores or other reviewed things (e.g. examination sheets, homework) as a variable (McFarland and Hamilton, 2005; Rivera and Rice, 2002). The expression "execution", unless generally demonstrated by the agent, has a tendency to show a review accomplished by the understudy regardless of whether understudy execution is a course review or a thing grade.

So far as studies anticipate understudy execution, signs are that the organisation of learning, i.e. disconnected or on the web, is not an adequate treatment to impact huge distinction in an execution result

(McFarland and Hamilton, 2005; Rivera and Rice, 2002; Olson, 2002). In two reviews evaluated, understudy learning was reduced by utilising the understudy grades amid the finish of the course (Biktimirov and Kassen 2008, Brown and Liedholm 2002). Reliable outcomes in the writing uncover the likelihood that more than the arrangement of learning is a figure recognising influences to understudy execution.

While instructors ponder the change of organisations and specialised answers for conveying coursework, so too are agents occupied with a dimness of markers endeavouring to find the tangible guide for teachers to utilise. Examiners have investigated everything from an understudy's diary of movement (i.e hits, get to, participation) (Biktimirov and Klassen, 2008; Chen and Peng, 2008;Cappel and Hayen, 2004) to an understudy's age, race, GPA, homework, and test scores (Lundgren and Nantz, 2002;ChuenandKan, 2002) to catch signposts on how an instructor may improve understudy learning in either on the web or disconnected discussions. Unmistakable in these examination endeavours are a couple of examinations that branch out to consider understudy learning styles, think about examples, and understudy learning approaches (Bliuc et.al., 2009; Lu, Yu and Liu., 2003). Adopting a psychometric strategy extends issues for future agents to consider. In spite of an expanding measure of research on innovation and educating, questions stay unanswered concerning the general productivity of online courses versus their in-class partners.

RESEARCH METHODOLOGY

The study was conducted with structured self-administrated questionnaire with the accessible population of 5000 students of B.E, B.Tech at various colleges and deemed universities. A sample size of 5000 was taken for the study but only 4200 questionnaire were received, Out of which 3700 completed valid response were taken. Sample units were met personally outside of their campus to avoid unnecessary intentional feedback. The Questionnaire was designed with demographic details and five sections.

DATA ANALYSIS

Demographic Profile of the Respondents

S. No	Variables	Parameters	Frequency	Percent	Cumulative Percent
1.	Gender	Male	2979	80.5	80.5
		Female	721	19.5	100.0
2.	Age	Below 18	1702	46.0	46.0
		18 – 20	1676	45.3	91.3
		Above 20	322	8.7	100.0
4.	Educational Level	BE	1961	53.0	53.0
		B.Tech	1739	47.0	100.0
5.	Present Year	1st year	370	10.0	10.0
		2nd year	777	21.0	31.0
		3rd year	1480	40.0	71.0
		4th year	1073	29.0	100.0
6.	Residential Area	Urban	2553	69.0	69.0
		Semi Urban	814	22.0	91.0
		Rural	333	9.0	100.0

The major part of the respondents are belongs to male about 80.5%. Most of the respondents are aged below 18. The respondents ratio of BE students are very high. Most of the respondents are studying third year in the college. Most of the respondents are belongs to urban area.

**Effects of Gender, Online Training, Gender and
Online Trainig Togather in Students Performence**

Source	df	Mean Square	F	Sig.
Gender	1	2.338	0.390	0.532
Online training	3	38.275	6.392	0.000
Gender & online training	2	9.019	1.506	0.222

Table above depicts the result of the ANCOVA test between Student Performance and Gender, Online training and Gender and Online training together. Student Performance being the dependent variable, Gender, Online training and Gender and Online training together are being independent variable.

The figures arrived in the above table shows that there is no significance in Student Performance with regard to Gender and Gender with Online training together. Whereas Student Performance and Online training signifies at $p<0.01$ (where p= 0.00 and the Mean square is 38.275, F value 6.392).

CONCLUSION

Comparison of online and offline learning is no doubt of substantial interest to teachers and the focus of numerous studies. As preference for online learning increases, mostly due to the convenience and flexibility it offers students, universities find themselves increasing the number of online format courses to meet the growing demand. However, the question remains whether the delivery format of a course, such as online, offline, impacts student performance, their satisfaction and learning. Many a priori studies report mixed results. In a study of Sheweta Singh at al. entitled "Efficiency of online vs. offline learning: a comparison of inputs and outcomes", they take a novel approach by opening a discussion for future investigators to consider measures that impact student efficiency. By using the DEA (Data Envelopment Analysis) approach to estimating student efficiency in this investigation, they have found sufficient evidence to indicate that students taking the online course format are more efficient than their offline counterparts. The results indicate a difference between online versus offline formats when considering the number of hours students spend studying as an indicator of student performance. Student performance includes the student's final grade and self-reported level of learning and satisfaction from their course experience. Additionally, the DEA approach reveals sufficient evidence to indicate the course load negatively impacts the efficiency of students. Finally, students that work full or part-time, have familiarity with the Internet, a have preference for online course material all positively impacts a student's efficiency using the DEA approach (Singh, 2012). Similarly, the results of this study revealed that the learning achievement on the effectiveness index (E.I.) of the developed learning activities was good and the two groups of sample students performed in the same way after the implementation, but their learning achievements were not much different. When surveying their satisfaction with the LADS model, the results showed that students were more satisfied with the online LADS model than the offline one. Similarly, in a study of Virginia Roach and Linda Lemasters entitled "Satisfaction with online learning: a comparative description study", this study was

conducted to determine to what degree students were satisfied with the online program and their degree of satisfaction in comparison to on-ground courses.

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