

AN EXPERIMENTAL RESEARCH ON EXAMINING INFLUENCE OF CREATIVE POWERPOINT TEACHING ON STUDENTS ENGAGEMENT.

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Abstract:

There is a shift in the curve from blackboard learning to digital learning. The purpose of the study is to examine impact of creative PowerPoint & digital mode of learning on student's engagement. Parametric independent t-test is applied to evaluate impact of digital learning on student engagement. The study revealed that there is a significant influence of innovative PowerPoint learning on student engagement. Further studies can be made on evaluating impact of student engagement on students' performance.

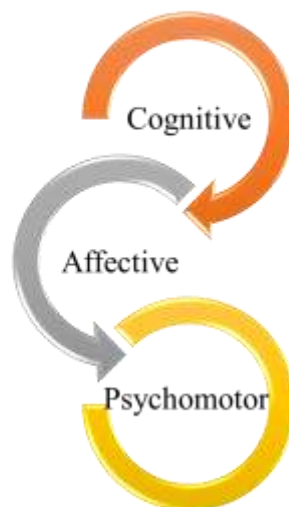
Keywords: Digital learning, PowerPoint, student engagement.

Introduction:

Student Engagement can be defined as process of involving the students in the process of learning in an effective manner. The level of dedication the student shows in their learning depicts the student's intensity in their course. The more the student engagement, the more would they have a better perspective as well as understanding of the relative concept. Higher degree of student engagement leads to increased satisfaction, lower feeling of isolation, and enhancement in the performance level of students and improvement in motivation factor. As a result of the pandemic situation globally, all of the education institutions are bound to conduct their lectures on through the online medium, which henceforth requires more than efforts from the side of teachers to enhance student's engagement in learning online.

Student Engagement scale can be measured on the basis of three parameters. The scale of student engagement is being introduced by Coates and Krause where they made the student engagement being defined as the involvement of students completely in activities related to educational courses and from which they are entitled to receive direct returns.

Dimensions Of Student Engagement



Cognitive engagement can be defined as a state wherein the students put in their efforts completely in classrooms in learning of the concepts being taught by teachers and attempting in understanding the relative topic as well as persistent to learn a specific concept over a long period.

Affective engagement can be defined as the attachment of students to the topic on an emotional aspect. The more the student's engagement would be there, the more as well as positive would be student's attitude towards that specific task and this would overall lead to lower stress and level of anxiety in the students.

Psychomotor/ Behavioral engagement can be defined as using physical activities as well as involving the hand-eye co-ordination towards a specific task or concept. Here the students are assigned specific tasks that they had to perform that would gradually help them in increasing participation level as well as would increase enthusiasm in different activities.

Traditional method of learning involves the **black board method** which is relatively an old concept and the most effective of all. This method of learning is being applied on a larger scale. This is totally a student centric method focused wholly on the students. This method is not at all expensive and also can be reused several times. It helps the students in matching pace with the teachers and no electricity consumption is required for the usage of this method. The black board requires chalk which the teacher uses to list down the points to explain and the chalk does not require any kind of special care to be taken and is also cheaper, does not contain any smell and has a good effect while the teacher presents the visual & written ideas related to the topic.

Blackboard learning method is helpful for students in learning and understanding the concepts clearly, helps in community building and is a method for sharing knowledge. The method is more flexible, open and student centric focused on student's achievements.

PowerPoint Presentations can be defined as using presentations to enhance the level of learning among the students during online classes which are conducted in colleges and schools. This use of PPT presentations is useful for both students and teachers during online lectures. This helps the students in understanding the concepts and topics in a more precise manner.

It is also observed that using PPT-audios are helpful to stimulate skills of reading and listening and to enhance the student's talents that they have at the same time.

Review of Literature:

1. Parsons J. et al (2011) examined in this research paper that student engagement is being used for discovering the ideas among the educators so as to increase the involvement of the students in academics. The researchers suggest that the focus is being shifted to the disengaged students to the engaged students. So it is necessary that steps should be taken to reshape the methods so that all the students are benefitted and thus it will ensure more student engagement which will eventually lead to growth in the performances of the students.

2. Fredricks J. et al (2012) described in their study that the main aim of the research is to measure the engagement of students in three ways. Firstly, the researchers emphasize on describing the strength and weaknesses of the various methods being adopted to assess the engagement of students. Secondly, they try in comparing and contrasting eleven self-report survey methods related to student engagement which is being used priorly also. On the basis of this 11 measures, conclusion is derived. And lastly, the limitation of the present method is studied to make the necessary changes.

3. Gunuc S. et al (2015) pointed out in the study that the main aim of the research is in developing the scale for student engagement in higher education. 805 participants were taken who were students. The research highlights 6 factors which were found out from the study. The six factors are sense of belonging, valuing, peer relationships, cognitive engagement, behavioural engagement, and relationships with faculty members.

4. Lin S. et al (2018) conducted in their research paper that aims in describing the validation as well as developing the measures of the students engagement which is called the Student Course Engagement Scale. For determining its effectiveness, two analyses confirmatory and exploratory was conducted on basis of 2 independent samples of the college students of Taiwan. The results being derived from the 20-item SCES study showed factorial validity as well as good dependency and all the factors were positively correlated with the various measures of engagement.

5. Syafril E. et al (2021) described that because of the outbreak of the Corona Virus has hugely and widely affected the process of the learning. It has resulted in encountering problems from various sides both from the point of the view of the parent-student and the teacher's side. From this study, the researchers are trying to apply the method of the PPT-Audio in the process of learning. They use a qualitative design approach which includes a semi-participatory concept of interviews as well as observations through groups created on WhatsApp at the time of May-July 2020. The study highlights the concepts and the conditions related to the learning through audio-visual concept. The conclusions derived from the study highlights that the teachers are using the PPT presentations for giving assignments. It is being seen that the usage of the PPT has been very useful for the teachers to explain the subject or the point of content that they want to cover. It becomes an attractive method of letting the students learn and develop their skills of creativity and adding unique and interesting narration as well as pictures, visuals and graphics.

6. Tello A. et al (2015) conducted in their study that the method of online teaching has become a very useful and convenient technique for providing education. This new innovative medium has become quite popular among the teaching faculties and students. Both the parties are taking the advantage of this deep and rich academic content without the need of conducting and heavy lectures. Thus this research paper emphasis on creation of an interactive platform for online learning.

Significance of the study:

Student engagement is important with respect to learning abilities of students in online environment. It is important to study the behaviour of students as mostly it is being observed that they feel disconnected and isolated in the online environment. So it is the responsibility of the teachers and the education institutions that they try to adopt techniques which would help students increase

their engagement level. Student engagement helps in increasing their focus and attention which would help them to improve their performances academically that would help them increase their grades overall.

Objectives:

1. To analyse impact of digital board & creative PPT on students engagement.

Hypotheses:

Hypothesis1

Ho: There is no difference in pre mean student engagement of control and experimental group.

H1: There is a difference in pre mean student engagement of control and experimental group.

Hypothesis2

Ho: There is no difference in post mean student engagement of control and experimental group.

H1: There is a difference in post mean student engagement of control and experimental group.

Material and methods:

Experimental Group	R	O1	X1	O2
Control Group	R	O3		O4

Experimental research is undertaken by selecting 50 B.com students divided into control and experimental group of 25 each. The students of experimental/Treatment group are taught with the help of digital board & creative PPT and students belonging to control group are taught on the black board and with the help of camera lectures are made visualize to them. Parametric t –test is used to evaluate impact of digital board & creative PPT on students engagement. The tool used for the current study is SPSS.

Results:

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pre_Scores	Control	25	73.1600	5.12900	1.02580
	Experimental	25	73.1200	7.68288	1.53658

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Pre Scores	Equal variances assumed	4.757	.034	.022	48	.983	.04000	1.84752	-3.67469	3.75469
	Equal variances not assumed			.022	41.847	.983	.04000	1.84752	-3.68885	3.76885

According to (Donaldson, 1968) as the group sizes are equal t –test can be quite robust to violation of normality and power of t test appears to be unaffected by non-normality. Thus parametric independent t-test is applied to examine impact on creative PowerPoint teaching technique on student engagement. P (value) of Levene’s test < 0.05 indicating violation of assumption of homogeneity.t (41.847) =0.022 and p (value) =0.983 > level of significance 0.05 **indicating no significant difference in pre mean score of student engagement of control and experimental group.** Mean student engagement control group (pre) = 73.16 with ± 5.13 SD and mean student engagement experimental group (pre)= 73.12 with ± 7.68 SD.

Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Post_scores	Control	25	72.6000	5.30723	1.06145
	Experimental	25	84.4000	4.08248	.81650

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post_scores	Equal variances assumed	1.690	.200	8.812	48	.000	-11.80000	1.33915	-14.49255	-9.10745
	Equal variances not assumed			8.812	45.037	.000	-11.80000	1.33915	-14.49713	-9.10287

According to (Donaldson, 1968) as the group sizes are equal t –test can be quite robust to violation of normality and power of t test appears to be unaffected by non-normality. Thus parametric independent t-test is applied to examine impact on creative PowerPoint teaching technique on student engagement. P (value) of Levene’s test > 0.05 indicating equal variance assumed.t (45.037) =8.812

and p (value) = 0.000 < level of significance 0.05 **indicating a significant difference in post mean score of student engagement of control and experimental group**. Mean student engagement control group (post) = 72.60 with ± 5.13 SD and mean student engagement experimental group (post) = 84.40 with ± 7.68 SD.

Conclusion:

It can be concluded that the student engagement can be enhanced by innovative & creative learning techniques. Thus to increase Behavioural, affective & cognitive engagement of the students various innovative techniques must be implemented in E-learning. Innovative teaching methods must also be implemented in offline lectures. Videos, diagrams, quizzes with poll system etc. should also be a part of innovative learning. Further studies can be made on building a structural equation modelling evaluating impact of cognitive, affective and psychomotor dimensions on student's engagement & also examining impact of student's engagement on the overall performance of the students.

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