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EFFECTIVENESS OF ACTIVITY BASED LEARNING IN MANAGEMENT EDUCATION

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ABSTRACT

Activity based has proved to be a successful teaching model in the field of Medicine, Engineering and Science, and has recently found its way to business schools. Therefore, in the present study an attempt has been made to find the effectiveness of this method among students of Management Institutes.Descriptive research design has been employed with both primary as well secondary data. Secondary data was collected through online journals and magazines. The primary data was collected through a structured questionnaire based on 5 point likert scale. The sample for the study comprised 100 students who were selected randomly from Management Institutes in NCR. The data was analysed using mean, standard deviation, t-test and Pearson correlation with the help of SPSS ver. 23. It was found that majority of the students considered Activity Based Learning as an effective method of teaching. It was also seen that both male and female students had similar views regarding the effectiveness of Activity Based Learning. Lastly it was found that there was a significant relationship between the education level of students and statement that Activity Based Learning is more engaging than traditional learning.

Keywords: Activity Based Learning, Effectiveness, Management Institutes, Students.

I. INTRODUCTION

The philosophy of ABL finds its antecedents in the common notion that learning can be best when it is initiated by the surrounding environment and motivated by providing optimum opportunities to learn. An environment which is fearless and provides freedom to express always adds to best learning outcomes. In a 'traditional' class there is a perception that the most industrious students are those who passively soak up everything the teacher might serve up to them only to 'spout it' back word-for-word. Activity-based learning fosters self-learning and allows a child to study according to his or her aptitude and skill. It has proved to be a successful teaching model in the field of Medicine, Engineering and Science, and has recently found its way to business schools. Activity-based learning started sometime in 1944 around World War II when a British man David Horsburgh came to India and finally decided to settle down there. Horsburgh developed a diverse curriculum, which included music, carpentry, sewing, masonry, gardening, as well as the usual school subjects, English, Mathematics, Sanskrit, and Telugu. These pedagogic materials were systematically planned, with sketches and drawings and an occasional touch of humour. This initiative of Horsburgh was later proved to be one of the pioneer and milestones in ABL[1].

Even today most college courses are based on a passive lecture format where students are expected to simply listen to the material being presented. Therefore,teachers have to understand the importance of active learning techniques which have been shown to enhance the learning process. They have to discover the new learning games and have to use games in learning. Now a days different teaching methodologies are being discovered. Teachers have to choose the most effective methodology for their students according to the students learning level and their interests.

II. REVIEW OF LITERATURE

Raelin (1997)[2]illustrated a model of work-based learning which attempts to combine explicit and tacit forms of knowledge. Participants learn as they work by taking time to reflect with their colleagues who offer insights into their workplace problems. The author makes a clear distinction between work based learning and theoretical work related knowledge. He states that action learning is based on the straightforward pedagogical notion that people learn most effectively when working on real-time problems occurring in their own work setting. Raelin introduced the learning equation, first drafted by Revans, which helped operationalise the process.

Reichard (2002)[3] described and assessed forms, conditions and advantages of problem-oriented learning and presented several variants of active teaching methods: Panel Discussion, Role Playing, Case Studies, Simulation Games and Project Study. The strengths and weaknesses of these methods were assessed in the light of the objectives of public management teaching. Additionally, new experiences with summer schools, multinational lectureships and intercultural learning in the postgraduate Master's in Public Management program at Potsdam University were reported.

Stößlein (2009)[4] investigated the reaction of PhD students and junior faculty to a six-month course in Survey Research Methodology that used active learning experiences. Empirical evidence indicated that an active learning approach is more successful than the traditional technique-based course and exam format. The author analysed learning preferences, overall knowledge and skills acquired, and degree of satisfaction - before, during, and after the course. Given the positive feedback received, it was concluded that the modified teaching strategy seems to be effective

Gleason et al. (2011)[5] described evidence supporting the use of active-learning strategies in pharmacy education and also offered strategies for implementing active learning in pharmacy curricula in the classroom and during pharmacy practice experiences. Preparing pharmacy graduates to provide patient centered care required that students actively integrate knowledge, skills, attitudes, values, and behaviours in pharmacy practice activities. As barriers to the use of active-learning methods are recognized, they can and should be overcome.

Ranganath (2012)[6] argued that an active interaction with a learning object in activity driven or activity-based learning enables construction of learners' mental models. The goal of Activity Based Learning is for learners to construct mental models that allow for 'higher-order' performance such as applied problem solving and transfer of information and skills. This paper focuses on the crucial model of learning objects with activity-based learning. This study focused on Activity-based learning because it is hailed as one of the best ways of learning and teaching, especially in Business Management.

Pierse and Sutton (2012)[7] explored the value of activity-based learning in Higher Education classrooms for students of law. The authors were keen to introduce activities and learning aids that would not only enhance the learner's experience, but also cultivate better learner retention levels, while keeping adult evening learners alert and engaged. The authors initially outlined the learning aids that were developed and implemented in their efforts to enhance the modules taught on a legal practice course. The authors concluded upon an analysis of the above that the inclusion of activities provides students with a myriad of benefits from all levels of the Learning Pyramid.

Fallon et al. (2013) [8]developed a module that embraces an activity-based approach to learning in a group environment. It was believed that successful completion of the development of this Module would equip students with a deeply-learned battery of research skills to take into their further academic and professional careers. In order to encourage student engagement, a wide variety of activities were used. These activities included workshops, brainstorming, mind-mapping, presentations, written submissions, peer critiquing, lecture/seminar, and 'speed dating' with more senior students and self-reflection. The findings of this paper agreed with much of the previous research regarding the limitations of the lecture-based approach to learning.

Rathee and Sharma (2013)[9]explored the various Activity Based Learning techniques and described some of the innovative Activity Based Learning methods. The innovative methods included crosswords, card plays, and creativity sessions. The authors concluded that traditional teaching methods considered students as passive participants. They found that the management institutions produced students who had only theoretical knowledge and lacked the skills required in the corporate world which led to gaps. For the classroom teaching to be effective in the present scenario it is required that innovative and vibrant methods are adopted. In order to achieve this goal, the teachers have to be trained properly so that they can impart Activity Based Learning in the right manner.

Bolaji (2014) [10]examined the effect of Lecture and Activity based methods on the attitude of Junior Secondary School Students in Essay writing in French with the purpose of finding out which of the methods could promote higher positive attitude in students towards essay writing in French. The study adopted the quasi experimental research design which focused on students' attitude towards essay writing in French. The study eventually revealed that activity based method of teaching had a higher positive effect on the attitude of students than lecture method. Furthermore, activity based method of teaching was found pedagogically effective and highly rewarding as it has a higher positive effect on the attitude of students toward essay writing in French.

Thangam (2015) [11]analysed and evaluated the Quality of Service rendered in ABL education system at Government schools. The implemented ABL system has increased the performance of the students, performance in terms of – increased students speed of learning and capability, improved children's intelligence in academics, improved relationship between students and teachers, increased students' eagerness, interest and engagement towards subjects, improved group activity, improved self-confidence, self-learning, discipline, creativity and participation. Teachers satisfaction level and service quality also increased. Overall it can be concluded that the implemented ABL system in primary education is effective and the impact is favourable to both students and teachers.

III. RESEARCH METHODOLOGY

Descriptive research design was used in the present study and survey method had been employed whereby questionnaires were distributed to students in the Management Institutes of NCR. The respondents were asked to provide responses to items on a five-point Likert scale to measure the strength of their opinion from 1 'Strongly Disagree' to 5 'Strongly Agree'. The sample for the study comprised 100 students who were selected randomly. The reliability of the instrument was determined using Cronbach Alpha. The data was analysed using mean, standard deviation, t-test and Pearson correlation with the help of SPSS ver. 23.

3.1 Objective

1. To find the effectiveness of Activity Based Learning among students.
2. To find whether there is any difference of opinion regarding effectiveness of Activity Based Learning based on gender of the student.
3. To find whether a relationship exists between the education of students and statement that Activity Based Learning is more engaging than traditional learning.

3.2 Hypothesis

H_1: Both males and females have similar views regarding the effectiveness of Activity Based Learning.

H_2: There is a significant relationship between the education level of students and the statement that Activity Based Learning is more engaging than traditional learning.

3.3 Analysis and Interpretation

The value of Cronbach's Alpha is 0.763 which shows good reliability of the instrument.

Table 1 Demographic profile of respondents

Demographic Factors	Category	Percentage
Age (In Years)	<18	19
	19-20	51
	21-22	16
	23-24	11
	25 and above	3
Gender	Male	53
	Female	47
Education	10+2	47
	Graduation	53

The demographic profile of the respondents as presented in table 1shows that majority of the respondents were in the age group of 19-20 years. The number of male respondents was 53% and female was 47%. The respondents who had completed their graduation was 53% whereas the rest had completed their senior secondary school (10+2).

Table 2 Descriptive Statistics for effectiveness of Activity Based Learning

Statements	Mean	Std. Deviation
Case studies help in improving my problem solving abilities	3.77	1.014
Giving presentations has enhanced my communication skills	4.34	.966
Group projects help me in learning to work with others and co-operate	3.87	.950
Activity Based Learning improves the speed of learning	3.88	.844
Learning through activity has improved my leadership skills	3.81	.961
Learning through crosswords and puzzles improves my reasoning	3.66	1.174
Activity Based Learning helps in personality development	4.12	.844
In discussions I usually produce lots of ideas	3.55	1.086
Participating in simulation games gives me an insight of real work scenario	3.56	.820
In discussion I'm more likely to adopt low profile	2.83	.900
After participating in role playing activities I better understand the role I play	3.80	.888
At the time of giving presentations, I don't feel confident	2.94	1.213
I find Activity Based Learning to be fun	3.70	1.049
During team projects I do not get a chance to put my viewpoint	3.53	1.167
Activity Based Learning is more engaging than traditional learning	3.75	1.067
I find learning through activity more interesting than traditional learning (lecture)	3.83	1.025
I'm able to understand a concept in a better way through activity	3.89	.984
Performing an activity in class creates distraction	2.60	1.214
Preparing projects creates burden of studies	3.16	1.152
Activity Based Learning improves student-faculty interaction	4.09	.830
I find Activity Based Learning challenging	3.51	1.068

In table 2 it can be seen that the statements with values 4 and above show high level of agreement by the students towards these statements with the highest being the statement that says giving presentations improves communication skills with a value of 4.34 and lowest saying that performing activity in class creates distraction with the value of 2.60. This shows that overall there is an agreement among students regarding the effectiveness of including Activity Based Learning in their curriculum.

Table 3 Descriptive Statistics for barriers of Activity Based Learning

Statements	Mean	Std. Deviation
Negative attitude of the academic staff	2.71	1.305
Negative attitude of students	3.09	1.147
Negative attitude of institution	2.78	1.142
Lack of expertise	2.95	1.009
Lack of funding	3.07	1.085
Unfavourable environment	3.09	1.083
Insufficient student participation	3.60	1.015
Improper implementation of activities resulting in poor outcomes	3.24	1.026
Lack of support from home	2.48	1.235

Poor infrastructure	2.82	1.132

Table 3 shows that majority of the statements have values 3 or below which shows that mostly students are is disagreement or neutral towards the barriers of Activity Based Learning with the lowest being lack of support from home with a mean value of 2.48 showing highest level of disagreement and the maximum value of 3.60 for the statement insufficient student participation showing some level of agreement that the students consider themselves responsible for the prevalent barriers in the implementation of Activity Based Learning.

Table 4 Group Statistics

Statements	Gender	N	Mean	Std. Deviation	Std. Error Mean
Case studies help in improving my problem solving abilities	Male	53	3.755	.9386	.1289
	Female	47	3.787	1.1021	.1608
Giving presentations has enhanced my communication skills	Male	53	4.283	.9880	.1357
	Female	47	4.404	.9478	.1382
Group projects help me in learning to work with others and co-operate	Male	53	3.830	.9555	.1312
	Female	47	3.915	.9517	.1388
Activity Based Learning improves the speed of learning	Male	53	3.736	.9019	.1239
	Female	47	4.043	.7506	.1095
Learning through activity has improved my leadership skills	Male	53	3.811	.9619	.1321
	Female	47	3.809	.9699	.1415
Learning through crosswords and puzzles improves my reasoning	Male	53	3.415	1.2624	.1734
	Female	47	3.936	1.0087	.1471
Activity Based Learning helps in personality development	Male	53	4.075	.9167	.1259
	Female	47	4.170	.7610	.1110
In discussions I usually produce lots of ideas	Male	53	3.528	1.1369	.1562
	Female	47	3.574	1.0372	.1513
Participating in simulation games gives me an insight of real work scenario	Male	53	3.566	.8437	.1159
	Female	47	3.553	.8024	.1170
In discussion I'm more likely to adopt low profile	Male	53	2.755	.9982	.1371
	Female	47	2.915	.7754	.1131
After participating in role playing activities I better understand the role I play	Male	53	3.811	1.0011	.1375
	Female	47	3.787	.7500	.1094
At the time of giving presentations, I don't feel confident	Male	53	3.038	1.2704	.1745
	Female	47	2.830	1.1481	.1675
I find Activity Based Learning to be fun	Male	53	3.679	1.1730	.1611
	Female	47	3.723	.9017	.1315
During team projects I do not get a chance to put my viewpoint	Male	53	3.547	1.1696	.1607
	Female	47	3.511	1.1772	.1717
Activity Based Learning is more engaging than traditional learning	Male	53	3.679	1.1055	.1518
	Female	47	3.830	1.0283	.1500

I find learning through activity more interesting than traditional learning (lecture)	Male	53	3.660	1.1084	.1523
	Female	47	4.021	.8966	.1308
I'm able to understand a concept in a better way through activity	Male	53	3.906	1.0240	.1407
	Female	47	3.872	.9468	.1381
Performing an activity in class creates distraction	Male	53	2.528	1.2801	.1758
	Female	47	2.681	1.1441	.1669
Preparing projects creates burden of studies	Male	53	3.075	1.1905	.1635
	Female	47	3.255	1.1125	.1623
Activity Based Learning improves student-faculty interaction	Male	53	4.057	.9076	.1247
	Female	47	4.128	.7407	.1080
I find Activity Based Learning challenging	Male	53	3.528	1.0671	.1466
	Female	47	3.489	1.0809	.1577

Table 5 Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
Statements		**F**	**Sig.**	**T**	**df**	**Sig. (2-tailed)**
Case studies help in improving my problem solving abilities	Equal variances assumed	.556	.458	-.159	98	.874
	Equal variances not assumed			-.158	90.928	.875
Giving presentations has enhanced my communication skills	Equal variances assumed	.147	.703	-.624	98	.534
	Equal variances not assumed			-.626	97.378	.533
Group projects help me in learning to work with others and co-operate	Equal variances assumed	.031	.861	-.443	98	.659
	Equal variances not assumed			-.443	96.666	.658
Activity Based Learning improves the speed of learning	Equal variances assumed	2.060	.154	-1.835	98	.070
	Equal variances not assumed			-1.855	97.626	.067
Learning through activity has improved my leadership skills	Equal variances assumed	.077	.781	.015	98	.988
	Equal variances not assumed			.015	96.377	.988
Learning through crosswords and puzzles improves my reasoning	Equal variances assumed	6.298	.014	-2.261	98	**.026**
	Equal variances not assumed			-2.291	96.996	**.024**
Activity Based Learning helps in personality development	Equal variances assumed	.369	.545	-.558	98	.578
	Equal variances not assumed			-.564	97.596	.574
In discussions I usually	Equal variances assumed	.211	.647	-.211	98	.833

produce lots of ideas	Equal variances not assumed			-.212	97.914	.832
Participating in simulation games gives me an insight of real work scenario	Equal variances assumed	.286	.594	.078	98	.938
	Equal variances not assumed			.078	97.506	.938
In discussion I'm more likely to adopt low profile	Equal variances assumed	3.810	.054	-.888	98	.377
	Equal variances not assumed			-.901	96.393	.370
After participating in role playing activities I better understand the role I play	Equal variances assumed	4.933	.029	.135	98	.893
	Equal variances not assumed			.137	95.436	.891
At the time of giving presentations, I don't feel confident	Equal variances assumed	.630	.429	.855	98	.395
	Equal variances not assumed			.860	97.960	.392
I find Activity Based Learning to be fun	Equal variances assumed	5.391	.022	-.209	98	.835
	Equal variances not assumed			-.212	96.137	.832
During team projects I do not get a chance to put my viewpoint	Equal variances assumed	.005	.944	.155	98	.877
	Equal variances not assumed			.155	96.422	.877
Activity Based Learning is more engaging than traditional learning	Equal variances assumed	.459	.500	-.702	98	.484
	Equal variances not assumed			-.705	97.765	.482
I find learning through activity more interesting than traditional learning (lecture)	Equal variances assumed	5.954	.016	-1.775	98	.079
	Equal variances not assumed			-1.798	97.216	.075
I'm able to understand a concept in a better way through activity	Equal variances assumed	.155	.694	.168	98	.867
	Equal variances not assumed			.169	97.820	.866
Performing an activity in class creates distraction	Equal variances assumed	2.336	.130	-.625	98	.533
	Equal variances not assumed			-.629	97.992	.531
Preparing projects creates burden of studies	Equal variances assumed	.002	.961	-.777	98	.439
	Equal variances not assumed			-.781	97.718	.437
Activity Based Learning improves student-faculty interaction	Equal variances assumed	.180	.672	-.426	98	.671
	Equal variances not assumed			-.431	97.360	.668
I find Activity Based Learning challenging	Equal variances assumed	.004	.952	.181	98	.857
	Equal variances not assumed			.181	96.263	.857

For ascertaining whether significant difference exists between the male and female respondents' views regarding effectiveness of Activity Based Learning.

Levene's test checks for equality of variance among various groups. Significance value of Levene's test > 0.05 indicates that equal variance is assumed. In the given table 5, all the groups have equal variances. T-test statistics (significance value) less than level of significance (0.05) indicate that the two categories of independent variables (male and female) differ significantly towards their response to the various statements.

In this case no significant difference was observed as all significance value are greater than 0.05 except for statement 6. Thus it can be concluded that male and female respondents view effectiveness of Activity Based Learning in same manner.

Table 6Means for statement 15

Statement	Gender	Mean
Learning through crosswords and puzzles improves my reasoning	Male	3.415
	Female	3.936

From table 6 it was found that the value of mean for males is 3.415 and females is 3.936 which shows that females are more in agreement towards the fact that learning through crosswords and puzzles improves their reasoning as it is generally found that males inherently have better reasoning abilities compared to females therefore females find such activities more helpful in improving their reasoning than males.

Thus hypothesis H_1 that both males and females in have similar views regarding effectiveness of Activity Based Learning is accepted.

Table 7Correlations

		Education	Activity Based Learning is more engaging than traditional learning
Education	Pearson Correlation	1	-.297**
	Sig. (2-tailed)		.003
	N	100	100
Activity Based Learning is more engaging than traditional learning	Pearson Correlation	-.297**	1
	Sig. (2-tailed)	.003	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

From the Correlations table 7, it can be seen that the correlation coefficient (r) for whether Activity Based Learning is more engaging than traditional learning has a value of -.297 showing negative correlation between this statement and the level of education with sig value .003 showing that a significant relationship exists between the level of education and the statement that Activity Based Learning is more engaging than traditional learning. In previous researches (Stoblein, 2009; Bolaji, 2014) it has been found that Activity Based Learning has a positive effect on students than lecture method.

Thus hypothesis H_2 that there is significant relationship between the education level of students and statement that Activity Based Learning is more engaging than traditional learning is accepted.

IV. CONCLUSION

From the present study it can be concluded that overall there is an agreement among students regarding the effectiveness of including Activity Based Learning in their curriculum. It was also found that the students

consider themselves responsible for the prevalent barriers in the implementation of Activity Based Learning. The t-test based on gender showed that male and female respondents do not have any significant difference in their views regarding the effectiveness of Activity Based Learning. Lastly it was found that there was significant correlation between the education of the students and the statement that Activity Based Learning is more engaging than traditional learning. Hence it can be said the including Activity Based Learning in Management Institutes has helped the students in improving their skills and knowledge and has also led to more engagement than traditional learning.

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