

Active Learning through Dumb Charades: A Game Method for Technical Education

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Abstract

Lecture is one of the best teaching methods. Lecture provides all the knowledge related to the topic and is time saving. Students attentively listen, clear doubts, take notes and much more. There are many teaching methods followed in the Technical Universities such as Demonstration, Group Discussion, Brainstorming, Movies/Slides/Transparencies, Role Playing, Field Trip, Case Study, Tutorials, etc. Now-a-days, Advances in computer technology and multi-media systems have led to widespread interest in computer-based instruction and learning environments such as use of video, animation, graphics, and simulation allow the presentation of material in realistic contexts, thus addressing the problems of inert knowledge while promoting constructive and generative learning. Online educational environment is also creating an effective impact on the technical education for the adult learners. This paper introduces a new approach called "Dumb Charades game method" which I used for teaching students at graduate level. This method tries to involve students in an interactive session of teaching and learning; gives a healthy atmosphere of competitiveness in the class and also infuses a certain sense of team spirit; it helps to overcome the stage fears and apprehensions of doing something in front of an audience; finally It makes concepts easy and fun to learn and remember. Three hundred and sixty undergraduate students studying in six departments of H K B K College of Engineering, Visvesvaraya Technological University, Karnataka were interviewed about their perceptions of best and effective teaching methods and also the effectiveness of Dumb Charades method of learning for the subject "Management & entrepreneurship (06AL61)", which is a prescribed common subject for all the branches of Engineering. The university results of three batches for three consecutive years have been analyzed to find effectiveness of dumb Charades game method of Teaching and the results are published in this paper. The survey results presented at the end of this paper shows the effectiveness of the method proposed.

Keywords: Teaching methods, Dumb Charades game.

I. Introduction

"Education is the most powerful weapon which you can use to change the world", quoted by Nelson Mandela, is true for ever. Education enables a human

being to attain the greatest possible harmony, spiritual & materialistic knowledge, for the development of human potential and capability. Many researchers have contributed a lot for the development of the world exploration through education. Many teachers have given their energy to spread education through their wonderful teaching methodologies. Students learn best when they actively participate in the learning process, when they are engaged and motivated to learn, and when they can build on their existing knowledge and understanding. This paper will put forth one of the teaching methods which makes the students of higher education actively participate to know and learn

A lot of research has been done on the effectiveness of various teaching methods. For instance, the article [9] defines that each method has its own way to present the content which enhances the ability and skills of the student, but is no rule stating that a particular teaching method fulfils all the needs of the students. Students often have little expertise in knowing if the method selected by an individual instructor was the best teaching method or just "a method" or simply the method with which the teacher was most comfortable. There is much debate within the higher education community on how teaching or teaching effectiveness may be defined.

Many researchers have their own views on the defining the effectiveness of teaching. Effective teaching is thought as "that which produces beneficial and purposeful student learning through the use of appropriate procedures" [1], [2]. It is defined as the "creation of situations in which appropriate learning occurs" and shaping those situations is what successful teachers have learned to do effectively. Many researchers have focused on whether or not students are

legitimate judges of teaching effectiveness [3]. Though caveats abound, the general sense is that students are both rational and reliable sources of evidence. Students are exposed to all sorts of instructional experiences (lectures, instructional materials and aids, readings, exams). They are in effect experimental consumers—able to discern quality, relevance, usefulness, and instructor interaction. Some researchers claim that students can judge what is taught and how it is taught, yet some debate that students can only provide information with respect to the teaching method.

Thus, we can summarize that students are certainly qualified to express their satisfaction or dissatisfaction with the experience. They can answer questions about the quality of lectures, the value of reading and assignments, and the clarity of the instructor's explanation. They have the right to express their opinions and no one else can report the extent to which the experience was useful, productive, informative, satisfying, or worthwhile.

II. Dumb Charades

Dumb Charades or which is also known as charades is one of the most popular game played among people of various generations. A game of guessing, which is also a great pass-time, can be played without much preparation and tests the vocabulary of a person. It is a game that involves guessing of the words or phrases which are provided by the opponent team. It is generally played with two teams and using movie names or proverbs. A member of the team is selected by the other members, for the enactment. The player obtains the phrase from the other team and enacts the same to his team members. The remaining team members have to make the right guess. The players are allowed to make as many guesses as they want until they get it right or a predetermined time expires. This use of gestures can be done at times with common words having a particular gesture; this makes it easier for the guessing team to hit the answer within the time. The right guess will fetch the team points, on the other hand a wrong guess or the time getting over will not fetch either team any points. At the end of a set number of rounds, the team with the highest points total wins the game.

III. Making teaching more interesting

Higher education teachers strive to become more effective so that the students can learn better. They also explore methods to improve their teaching practice depending on the nature of subject, number of students, and the facilities available [9, 11]. Following is the brief description about the traditional lecture method.

Lecture Method : A lecture is a talk or verbal presentation given by a lecturer, trainer or a speaker to an audience. With all the advancement of training systems and computer technology, lecture method is still a backbone widely used in teaching and training at higher level of education. This method is economical and can be used for a large number of students. The Topic can be covered in a structured manner and the teacher has a great control of time. The classroom lecture is a special form of communication in which voice, gesture, movement, facial expression, and eye contact can either complement or detract from the content.

In the article [12] “Common Teaching Methods” stated the strengths of lecture method that it presents factual material in direct, logical manner, contains experience which inspires, stimulates thinking to open discussion, and useful for large groups. Findings have also revealed that most of the students considered lecture as best method because it creates new ideas, it is good for large class, develops creativity among students and the lecture material is better than the complexity of the textbooks.

Although the lecture method is an effective & efficient teaching method, it still doesn't cover all the levels of learning. It doesn't encourage cooperative group thinking, It is inefficient for comprehensive learning in which concepts & principles are developed. Lecture doesn't allow much participation from the students. As a result, many students will not completely involve in the learning willingly allow the instructor to do all the work. Many instructors also find it difficult to hold the attention of their students when they lecture for long.

Lecture places students in a passive rather than an active role, which hinders learning. Since it encourages one-way communication, the lecturer must make a conscious effort to become aware of student problems

and student understanding of content without verbal feedback. It requires a considerable amount of unguided student time outside of the classroom to enable understanding and long-term retention of content. In contrast, interactive methods (discussion, problem-solving sessions) allow the instructor to influence students when they are actively working with the material.

To make lecture more interesting, the lecture material should be stimulating and thought provoking. Information should be delivered dramatically by using examples to make it memorable, the teacher needs to ask questions throughout the lecture to involve students in the learning process and to check their comprehension, reinforce learning by using visual supports like transparencies, flip charts, whiteboard/black board etc. Teacher should take feedback of students to improve lecture method [2], [5].

Traditional lecture method is not suitable for all kinds of subject. Certain subjects like Management & Entrepreneurship, particularly the subjects which explains the standard organizations such as WHO, UNISCO, UNO, IMF, ISO, etc and to explain the Industrial Institute support such as NSIC, SIDO, SISI, SSIB, SSIDC, DIC, TEKSOC, SIDBI, KIADB, NISIET, etc needs different approach of teaching. So I have tried a new approach (method of gaming) which is much more effective than traditional lecture method. This new approach tries to involve students in an interactive session of teaching and learning; gives a healthy atmosphere of competitiveness in the class and also infuses a certain sense of team spirit; it helps to overcome the stage fears and apprehensions of doing something in front of an audience; finally It makes concepts easy and fun to learn and remember. With the survey it is observed by the traditional lecture method lacked in the above aspects.

IV. Methodology

Five departments of HKBK College of Engineering affiliated to Visvesvaraya Technological University, Karnataka, INDIA were selected through purposive sampling. The selected departments were: Information Science & Engineering, Computer Science & engineering, Mechanical Engineering, Electronics Engineering & Electrical and Electronic Engineering.

Thirty students studying at graduate level from each department were selected through convenient sampling to seek their opinion about the most effective teaching methods and the proposed method described (Dumb Charades method of learning) in this paper. Through their experience in learning and rating for different methods it helped in analyzing the performance of Dumb Charades game method of learning. A total of one hundred and fifty students were interviewed. They were asked to rate Dumb Charades game method of teaching with respect to the following parameters which according to many researchers are missing in the traditional teaching method. They are

- Involvement of students (interactive session)
- Competitiveness in the class (infuses a certain sense of team spirit)
- Making concepts easy to remember and learn

Firstly the results indicates the comparison of all the various teaching methods Then Dumb Charades game method with Traditional Teaching method were compared on the basis of the following parameters: Creativity, Large Strength, Teacher Experience, Topic Discussion, Time saving, Sharing knowledge, Involvement, Competitiveness, Making learning concepts easy, Remembering lesson, Technical Core Concepts kind of Subjects and Management kind of Subjects. This survey was conducted for three consecutive years for five batches of fifth semester engineering students. The results are collectively analyzed and the observations and finding are presented below.

V. Findings

Most of the students rated lecture method as the best teaching method and including the Dumb Charades game methods for the concept for abbreviation kind of subject will be more effective than simply lecturing that kind of lesson. Case study is considered to find the effectiveness of dumb Charades game lecturing for management kind of subjects. Reasons included; teacher provides all knowledge related to topic, it is time saving method; students listen to the lecture attentively and take notes etc. The group discussion was rated as the second best method of teaching because of more participation from students,

the learning is more effective, the students don't have to rely on rote learning, and this method develops creativity among students. Student's perception and ratings on effective teaching methods helps in the improvement of teaching/ learning process.

Results of various teaching methods

According to the students and the researches, the traditional teaching method is one of the best methods. One hundred and fifty students of our college have been interviewed about teaching approach used for the subject "Management and Entrepreneurship", which is common for five departments of HKBK College of Engineering. The results are presented as below.

METHODS	NUMBER (150 Students)	PERCENT AGE
Lecture	41	27.33 %
Group Discussion	30	20.00 %
Individual	14	9.33 %
Presentation	8	5.33 %
Seminars	6	4.00 %
Workshop	5	3.33 %
Conferences	7	4.66 %
Brainstorming	18	12.00 %
Role play	21	14.00 %

Table 1.1: Effectiveness of Different teaching methods

VI. Active Learning through Dumb Charades Game Method (DCGM)

The performance of Dumb Charades game method was found to be better than simple traditional Lecture method with respect to the following parameters and the analyzed results.

- Involvement of students (interactive session)
- Competitiveness in the class (infuses a certain sense of team spirit)
- Making concepts easy to remember and learn

The survey was specifically conducted for three batches of 40 students from Information Science & engineering department for three consecutive years. From the students feedback it was clear that the Dumb Charades Game method along with lecture method was clearly an improvement over the Traditional lecture method. The survey results are quantified in the tables shown in Tables 1 to 3 respectively. The graph showing the quantitative results is shown in Fig. 1.

METHODS	NUMBER (150 Students)	PERCENT AGE
Lecture	29	19.33
Lecturing with DCGM	39	26.00
Group Discussion	18	12.00
Individual	15	10.00
Presentation	7	4.66
Seminars	5	3.33
Workshop	4	2.66
Conferences	5	3.33
Brainstorming	14	9.33
Role play	15	10.00

Table 1: Effectiveness of Different teaching methods

The results of the comparison rated on a scale of Good, Average and Bad with respect the given parameters are presented below.

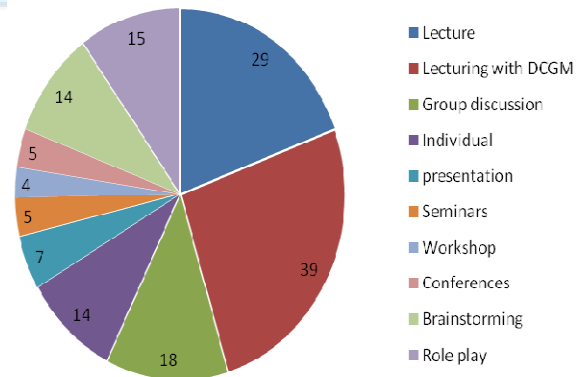


Figure 1 : Graph representing above table result.

Parameters	Traditional Lecture	Dumb Charades Game Method (DCGM)	Remarks
Creativity	Good	Good	Both are equally Good
Large Strength	Good	Average	Less students more effective
Teacher Experience	Good	Average	DCGM requires Experienced Teacher for instruction
Topic Discussion	Average	Good	In DCGM, Student Involvement is more so discussion will be more effective than other method
Time saving	Good	Average	DCGM requires more time to complete the Topic
Sharing knowledge	Good	Good	Both are equally good
Involvement	Bad	Good	Students involvement is very less in traditional method
Competitiveness	Bad	Good	Team spirit will gives competitiveness in the discussion.
Making learning concepts easy	Average	Good	Gaming method will be more interesting than simply listening
Remembering lesson	Average	Good	DCGM method of learning makes concepts remain for long time.

Technical Core Concepts kind of Subjects	Good	Bad	Core concepts can't be dealt by gaming way
Management kind of Subjects	Average	Good	More interestingly concept can be thought.

Table 3: Comparison between Traditional Lecture method with DCGM

In the above survey, it is clear that only traditional teaching method will not serve the need of adult learners for the concepts which requires involvement of students and discussion. The proposed method (DCGM) plays an important role of involving students, making learning concept easy and remembering the concepts for long time.

VII. Conclusion

Active Learning through Dumb Charades method involves students in an interactive session of teaching and learning. Dividing the class into teams makes a greater impact as it brings a healthy atmosphere of competitiveness into the class and also infuses a certain sense of team spirit. One person from each team had to enact out the name of a topic and its features to his/her team members. The team which guessed the most would win. It helps students overcome stage fear and presenting themselves in front of an audience. The best part of the whole method is that it becomes easier for a student to remember the concept for the examination. As soon as they read a concept heading, it brings to their minds the images of their classmates hilariously trying to gesticulate those serious keywords. It becomes easy and fun to learn and remember. All in all, the sessions become more interactive, helpful and very enjoyable for the students. Finally our survey results state that "Teaching with Dumb Charades game method "is one the most helpful active learning methods for adult learners pursuing technical education for specific subjects.

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