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Innovative Assessment Pedagogy (Using Poster)

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Abstract

In recent years, the collaborative learning pedagogy has evolved out with extensive result oriented methods like, in class activities of engaging students or participants in various learning methods. The parameters in existing methods as explained in bloom's taxonomy, with various levels of studying like remembering, understanding, applying, analyzing, evaluating, creating or designing are considered with some different perspectives, along with some existing methodologies which are collaborated with proposed methodology and found worth to enhance the teaching and learning. Few experimental results are provided here with such parameters implemented in some examples by considering different levels of the students like undergraduate, post graduates. By comparing and analyzing the proposed methodology with an existing teaching methods we can conclude that, organizing the productive interactive sessions with certain predefined activities will lead the students to learn the contents of the full syllabus, which in turn helps all students to prepare for the exam and due to this even an average student can be benefitted and learn the topics effortlessly.

Keywords— Bloom's Taxonomy, Poster presentation, Internal continuous assessment (ICA), Poster contest

Introduction

The innovative technique involves that the faculties in collaboration with student's involvement can design the activity to group the students of a single class and allocate them with the different topics from the contents of the syllabus and ensure that they had understood it and are preparing the contents thoroughly by applying it in either the real time environment or mathematically or by any way of implementation like programming etc, so as to make them to analyze it with few of the parameters given in given topic, so they should design the poster based on the

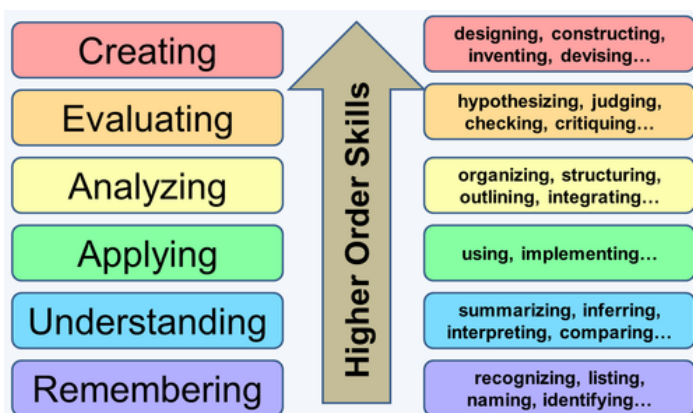
knowledge they had acquired and then present it in presence of the different institutional faculties which will be judged by them, and the students will be honored by specific marks which are based on following few criteria's, here assigned marks can be considered as a part of an internal continuous assessment (ICA) indirect assessment tool for the students which is the transparent feedback to the students for their individual performances. The criterions are also described in the proposed methodology and the results based on the design can be evaluated to compare this method with an existing day to day learning pedagogies.

Here the regular day to day pedagogies are presumes as a normal teaching in a classroom with simple chalk and talk and power point presentations as well.

1. Related Work

As per the blooms taxonomy, the different parameters like, remembering, understanding, applying, analyzing, evaluating, creating or designing need to be considered. However, these all criterions are considered and implemented in the proposed methodology to prepare the posters based on their knowledge and understandings.

As per the diagrammatic representation given below



2. Proposed Methodology

In connection to the existing methodologies, the proposed method suggests that, an in class Poster contest can be organized in the class of two or more hours as given below

1. All the strength in an entire class is divided into the different groups of maximum four students and a specific important topic will be assigned to individual groups.
2. These group members need to emphasize on the criteria's based on which they will be judged are s given below
 - a) Data Collection
 - b) Organizing the contents /Poster Design
 - c) Understanding of the topic
 - d) Delivery of the contents
3. Based on these criterions different faculties of the same domain or different domain can be called to take their presentations asked to give them marks which can be considered in their internal marks for the same subject.
4. The participants of the individual group have to prepare the power point presentation, which can be shared with all students in the class, after the poster contest is over.
5. This helps in charge faculty to judge the performance of an individual student by many different faculties and their marks can be taken as an average for assigning as a part of internal marks through indirect assessment tool and students will feel good since it's a total transparent marking tool.

6. This helps all the type of the students with their individual skill set to prove them in this activity as everyone has their individual skills like drafting, analyzing, making data presentable, designing a poster and through analysis lead to propose the new techniques in that domain.

This type of contest /competition is carried out four times in our institute and its results are given below

3. Results of the Experiment

No of students participants	Academic Year	Academic Program	Course of Activities	Semester
44	2016-17	B. Tech Integrated Computer	Microprocessor	V
56	2017-18	MCA	Operating Systems	II
62	2017-18	B. Tech Integrated Computer	System Programming	VI
66	2018-19	B. Tech Computer	System Programming	VI
68	2018-19	MBA Tech Computer	Operating Systems	IV

Table 1. Details of the events conducted

Timestamp	Processes	Process C	Deadlock	Deadlock	Page Repl	Process & Distribute	Input Out	Mobile O5	File Mana	Issues on	Paging & 5Disc	Sched	Issues on	Operating	Input Out	File System	Architecture an
2019/02/27 4:19:44 P	9	10	10	9	9	10	9	9	9	10	8	9	9	9	8	8	
2019/02/27 4:24:30 P	7	7	8	8	10	6	10	8	5	7	10	5	6	10	6	8	7
2019/02/27 4:29:38 P	8	8	8	8	10	7	6	8	8	9	10	8	9	8	7	8	8
2019/02/27 4:32:22 P	7	7	7	7	10	8	5	8	8	8	10	8	8	8	8	8	7
2019/02/27 4:39:14 P	8	6	9	7	10	8	9	7	6	10	8	9	7	8	8	8	8
2019/02/27 4:49:14 P	9	9	9	9	9	9	9	8	9	8	9	9	9	9	9	9	9
2019/02/27 4:52:14 P	9	9	10	9	8	9	8	8	9	9	9	9	9	9	9	9	9
2019/02/27 5:01:54 P	8	7	8	7	7	10	10	9	10	10	8	8	8	8	7	8	8
2019/02/27 5:03:07 P	9	9	8	8	9	8	9	8	8	8	8	8	8	8	8	8	8
2019/02/27 5:22:56 P	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2019/02/27 8:07:18 P	8	8	8	8	10	8	10	9	8	8	10	8	8	8	8	8	8

Table 2. CSV file of responses received for MBA Tech Computer (2018-19) Batch

Timestamp	Himachal Pradesh	Uttar Pradesh	Rajasthan	Bihar	Madhya Pradesh	Punjab	Maharashtra	Zarkhand	Kerala	Tamilnadu	Andrapradesh	Karnataka	Meghalaya	Orissa	Group No 15	Group No 16
3/4/2019 16:03:48	6	6	6	6	6	6	6	6	8	7	6	6	7	7	6	6
3/4/2019 16:05:44	6	6	6	6	6	7	9	6	6	6	6	6	6	6	6	6
3/4/2019 16:05:44	8	7	9	9	7	8	8	8	8	8	8	8	9	8	8	9
3/4/2019 16:57:47	10	8	8	8	10	10	9	8	8	8	8	9	8	8	8	8
3/4/2019 17:14:26	10	8	8	10	8	9	8	8	8	8	8	9	9	9	9	10
3/4/2019 17:22:35	9	10	9	10	9	9	9	10	8	9	10	9	9	9	9	9
3/4/2019 17:33:19	10	8	8	8	8	10	8	9	7	8	8	8	9	8	8	8

Table 3. CSV File of responses of the B.Tech Computer (2018-19)Batch

Btech int faculty responses

Timestamp	Jammu & Kashmir	Assam	Uttar Pradesh	West Bengal	Gujarat	Rajasthan	Maharashtra	Kerala	Karnataka	Andhra Pradesh	Madhya Pradesh	Telangana	Tamilnadu	Uttaranchal	Orissa
3/29/2018 15:09:47	8	7	8	6	7	7	7	9	8	6	6	6	6	6	5
3/29/2018 15:31:06	8	6	8	6	6	6	6	6	6	6	6	6	6	6	8
3/29/2018 15:31:17	8	6	6	6	6	6	6	6	6	6	6	6	6	6	8
3/29/2018 15:32:45	9	9	7	7	7	8	8	9	8	9	8	8	8	8	8
3/29/2018 15:33:29	9	9	7	7	7	8	8	9	8	10	7	8	7	9	8
3/29/2018 15:40:59	6	9	6	4	7	9	8	9	6	10	7	6	8	9	8
3/29/2018 15:50:23	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1
3/29/2018 15:53:25	9	10	9	8	9	10	8	10	8	8	10	8	9	8	7
3/29/2018 15:57:01	9	9	9	8	8	9	9	9	8	8	9	9	9	9	9
3/29/2018 16:04:30	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
3/29/2018 16:52:10	9	7	9	8	9	9	7	10	9	7	7	5	8	7	8
7.818181	7.54545	7.272727	7.272727	6.45454	7.754545	7.090909	8.1818	7.090909	7.363636	7.636363	7.090909	8.727272			

Table 4. Responses of B.Tech Integrated Computer (2017-18) Batch

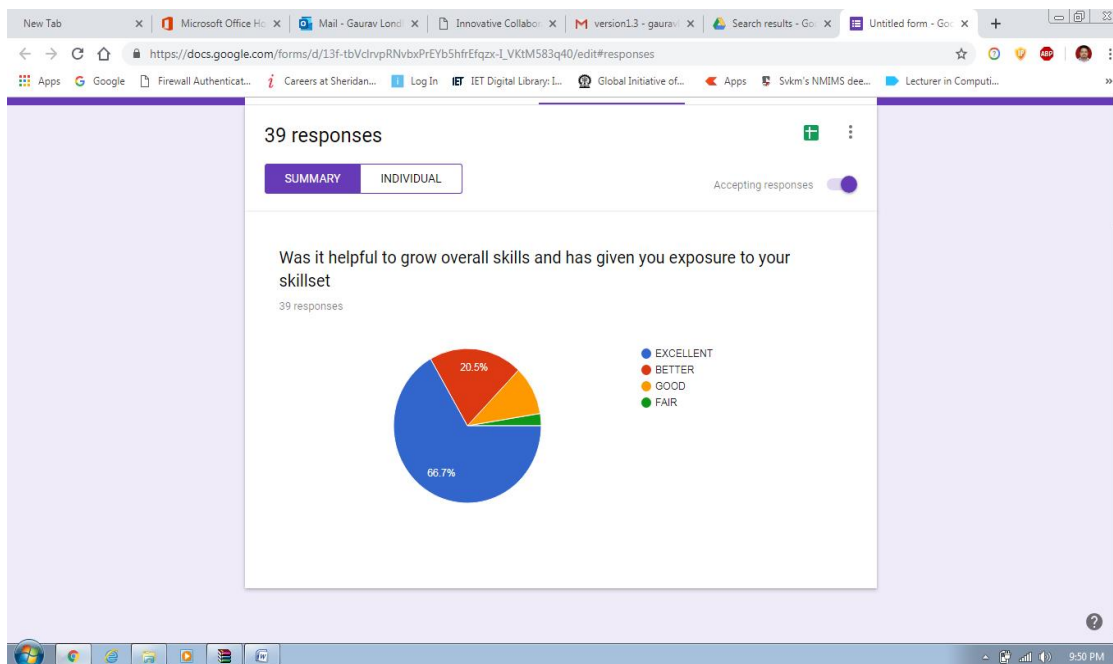
OS Poster MARKS (Responses)

Timestamp	Group BIG BOSS	Dream Crushers	Incredible	Nmite	Pinank	Schemers	Sys- 07	Tech Squad	Tech Know	Techno Minds	Three Musketters	TIP TOP	WARLORD	Xplosion
3/26/2018 15:27:52	8	7	8	9	10	9	9	9	7	7	6	7	6	8
3/26/2018 15:27:58	8	7	9	9	5	9	9	9	8	7	7	8	7	9
3/26/2018 15:43:35	7	6	7	7	10	7	6	8	7	6	8	5	6	6
3/26/2018 15:44:25	6	5	7	6	7	8	6	7	8	7	3	5	6	9
3/26/2018 15:52:14	8	8	7	7	6	5	8	6	4	6	7	5	4	6
3/26/2018 15:59:40	10	8	10	8	9	7	7	8	8	8	8	8	6	8
3/26/2018 16:29:08	7	7	7	7	7	7	7	7	8	7	6	7	7	8
3/26/2018 16:29:22	7	7	7	7	7	7	7	7	8	7	6	7	7	8
3/26/2018 16:43:07	7	7	8	9	8	8	7	9	8	8	8	8	8	8
3/26/2018 16:58:28	7	7	8	9	10	7	8	10	9	8	10	7	8	9
3/26/2018 17:03:47	7	7	7	7	7	7	7	7	7	7	7	7	7	7
3/26/2018 17:04:30	8	8	8	8	8	8	8	9	9	8	10	8	8	10
3/26/2018 17:37:56	9	8	8	8	9	9	9	9	9	9	9	9	9	9
3/26/2018 17:41:04	6	5	8	8	8	6	6	8	9	7	6	6	6	5
3/26/2018 17:44:46	8	8	10	8	8	8	8	10	8	8	8	8	8	8
3/27/2018 10:22:35	8	7	10	8	10	7	8	9	9	8	9	9	9	9

Table 5. Responses of MCA (2017-18) Batch

How was your overall experience of this event?

Was it helpful to grow overall skills and has given you exposure to your skill set?



Graphical Representation of the google sheet responses

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[Global Initiative of...](#)
[Apps](#)
[SvkM's NMIMS dee...](#)
[Lecturer in Comput...](#)

Untitled form (Responses)

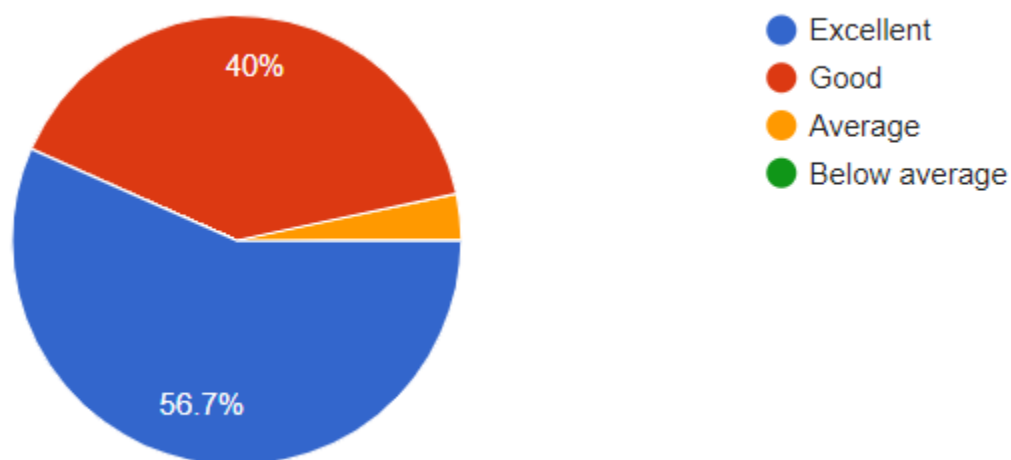
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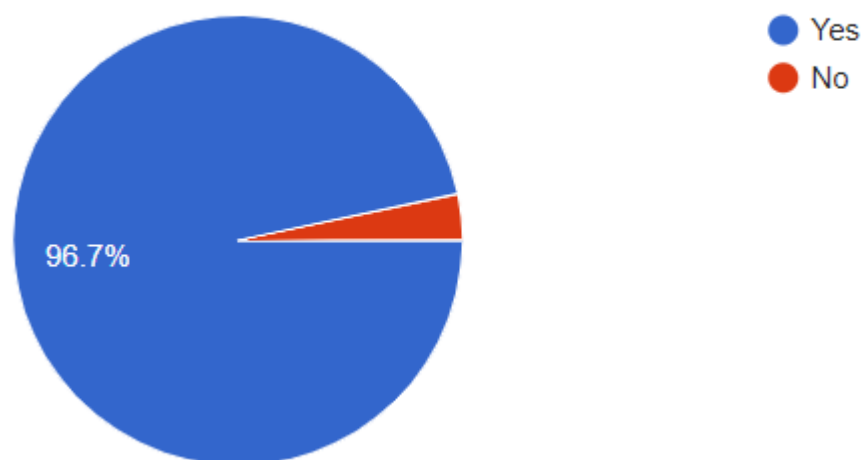
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	A	B	C	D	E	F	G	H
1	Timestamp	Was it helpful to grow overall skills and has given you exposure to your skillset						
2	3/27/2018 11:13:01	EXCELLENT						
3	3/27/2018 11:13:57	EXCELLENT						
4	3/27/2018 11:14:55	EXCELLENT						
5	3/27/2018 11:16:21	EXCELLENT						
6	3/27/2018 11:18:52	EXCELLENT						
7	3/27/2018 11:20:21	EXCELLENT						
8	3/27/2018 11:20:56	EXCELLENT						
9	3/27/2018 11:21:42	EXCELLENT						
10	3/27/2018 11:21:50	EXCELLENT						
11	3/27/2018 11:21:50	BETTER						
12	3/27/2018 11:22:33	EXCELLENT						
13	3/27/2018 11:22:35	BETTER						
14	3/27/2018 11:23:05	EXCELLENT						
15	3/27/2018 11:25:03	EXCELLENT						
16	3/27/2018 11:26:51	EXCELLENT						
17	3/27/2018 11:32:00	FAIR						
18	3/27/2018 11:32:34	GOOD						
19	3/27/2018 11:32:48	EXCELLENT						
20	3/27/2018 11:34:24	GOOD						

[+](#)
[Form Responses 1](#)

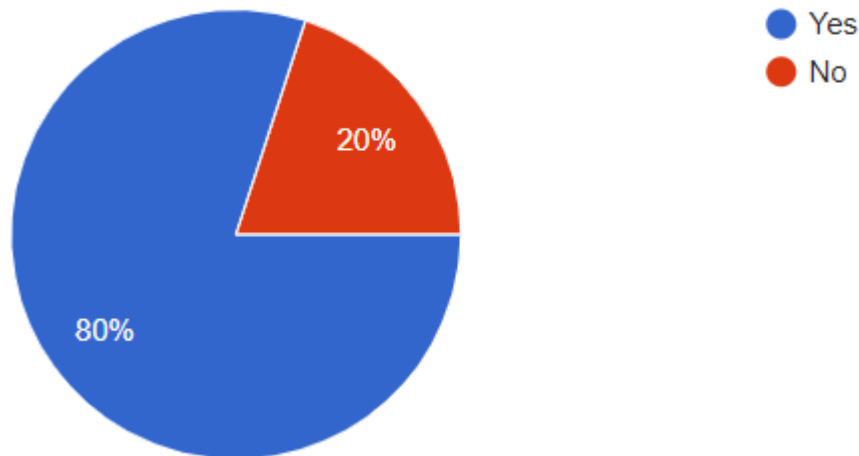
Table 6 Responses for the above given analysis**Review comments for the event by the faculties**

Did the competition help you improve your skills and found beneficial?



Graphical presentations of the evaluation system

Would you prefer poster presentation over normal presentation?



Graphical presentations of the evaluation system batch wise

Advantages to the society

1. Ability to work in team can be built with multiple interactions.
2. Ability to search the data suitable for the topic will be developed
3. Ability to present the summarized data can be achieved
4. Ability to design the graphics in the poster and summarized the important information in the power point slides can be judged and participants can get an immediate feedback for improvement before final examination so overall result can be increased to remarkable level.

Disadvantages

1. It becomes difficult to assign marks to individual students since it's a group activity so assigning marks to individual student is very difficult
2. Analysis of ICA marks based on the course outcomes is little difficult since each group is assigned only specific course outcome to focus upon but the part of his ICA are based on this only, whereas the ICA marks should cover all the course outcome equally this cannot be accomplished through this system.

4. Conclusion

The experimental analysis shows that, implementing such an innovative approach to engage the participants will encourage them to know the concepts in detail by virtue of which they can learn it more interestingly. The attainment of course objectives is carried out as well. Since this covers overall taxonomy we can adopt it for most of the courses and can get the preparation of the coursework based on notes created by the participants can be used by other participants for final examination, due to this indirect assessment tool by different faculties and senior students, performance of the students can be judged and will be averaged to be marked as a part of their Internal Continuous Assessment (ICA), which is helpful for all the group members to know their positives and negatives and get the opportunity to improve before final exam. This helps them to prepare for any difficult topic in the syllabus without special tutoring for it. Where by they can take the help of their batch mates as well. Some group members are good in organizing, some are good in data collection, some are good in designing and few of them are good in presentation so all the skill sets are given equal opportunities to grow and develop it.

This helps students to indirectly attain their course objectives very easily looking into their performances with the pie charts and opinions of the senior faculties.

5. References

1. Aditya Johri, Virginia Tech, ajohri@vt.edu, **Work in Progress - Reorganizing Engineering Pedagogy: Preventing Student Disengagement by Increasing Dialogic Learning**, 39th ASEE/IEEE Frontiers in Education Conference, October 18 – 21, 2009, San Antonio, TX, 978-1-4244-4714-5/09/\$25.00 ©2009 IEEE
2. Debalina Barik and Manik Mondal, **Innovative Pedagogy and Computer Aided Teaching**, 2010 2nd International Conference on Education Technology and Computer (ICETC) 978-1-4244-6370-1/\$26.00 © 2010 IEEE
3. **ELIZABETH LOWRY-CORRY, Communicating Through Poster Sessions**, IEEE TRANSACTIONS ON PROFESSIONAL COMMUNICATION, VOL. PC-22, NO. 3, SEPTEMBER 1979
4. Roopesh Kevin Sungkur, Mohammad Issack Santally, Saamiyah Peerun and Randy Foo Yee Wu Tai Wah University of Mauritius Reunit, Mauritius, **TrueSight Learning – An Innovative Tool for Learning Analytics** 2016 IEEE International Conference on Emerging Technologies and Innovative Business Practices for the Transformation of Societies (EmergiTech)
5. Kathryn Northcut Missouri University of Science and Technology northcut@mst.edu, **Writing Beyond the Curriculum: Latin American Themes Spur Innovative Pedagogy**, 2018 IEEE International Professional Communication Conference
6. Avishay Friedler Digital Learning Strategist (Education and teacher training) Campus – Israel's national digital learning initiative, from the Ministry for Social Equality Tel Aviv, Israel avishay@campus.gov.il, **Teachers Training Micro-Learning Innovative Model: Opportunities and Challenges**, LWMOOCs V – Learning with MOOCs 2018 26-28 September 2018, Madrid, Spain, 978-1-5386-6533-6/18/\$31.00 ©2018 IEEE
7. Eirini Dellatola, Thanasis Daradoumis, Yannis Dimitriadis **Implementing imagination-based pedagogies in a web-based Computer Supported Collaborative Language Learning writing activity: Orchestration issues**, 978-1-5386-8161-9/18/\$31.00 ©2018 IEEE
8. Satish R. Billewar, Karuna Jadhav, Gaurav Londhe Book Editor(s): Milind Shrinivas Dangate, W.S. Sampath, O.V. Gnana Swathika, P. Sanjeevikumar, First published: 11 May 2023 **Education in Energy Conversion and Management**, <https://doi.org/10.1002/9781394193738.ch37>
9. **Velvizhi, V., Billewar, S.R., Londhe, G., Kshirsagar, P., Kumar, N. Materials Today: Proceedings, 2020, 37(Part 2), pp. 2607–2611 Big data for time series and trend analysis of poly waste management in India**