

INTRODUCTION

- Conservative Dentistry and Endodontics is a subject which requires both clinical acumen as well as theoretical knowledge. Traditionally, the teaching of conservative dentistry and endodontics has been lectures. Teacher centered lectures have been criticized for failing to engage students and develop the higher level cognitive and interaction skills.
- Flipped classroom is an instructional approach in which foundational knowledge is delivered online for students to study at their own pace, and class time is devoted to active learning activities to deepen students' comprehension of the content. The goal is to make learning more student centered and to promote the development of higher level learning outcomes on Bloom's taxonomy.
- This research will help to identify whether flipped classroom will increase the students learning ability in conservative dentistry and endodontics which will be assessed with the content based questions. Also the research will help to recognize the perspective of the students towards the flipped classroom method of teaching and learning.

OBJECTIVES

- To introduce flipped classroom method in conservative dentistry and endodontics.
- To assess the effectiveness of flipped class room in teaching and learning of Conservative Dentistry and Endodontics in second year undergraduate dental students.
- To assess the perspectives of undergraduate dental students about flipped classroom.

METHODS & MATERIAL

- Intervention study
- Undergraduate third year dental students (total 43 students)
- Faculties from other departments were invited as observers

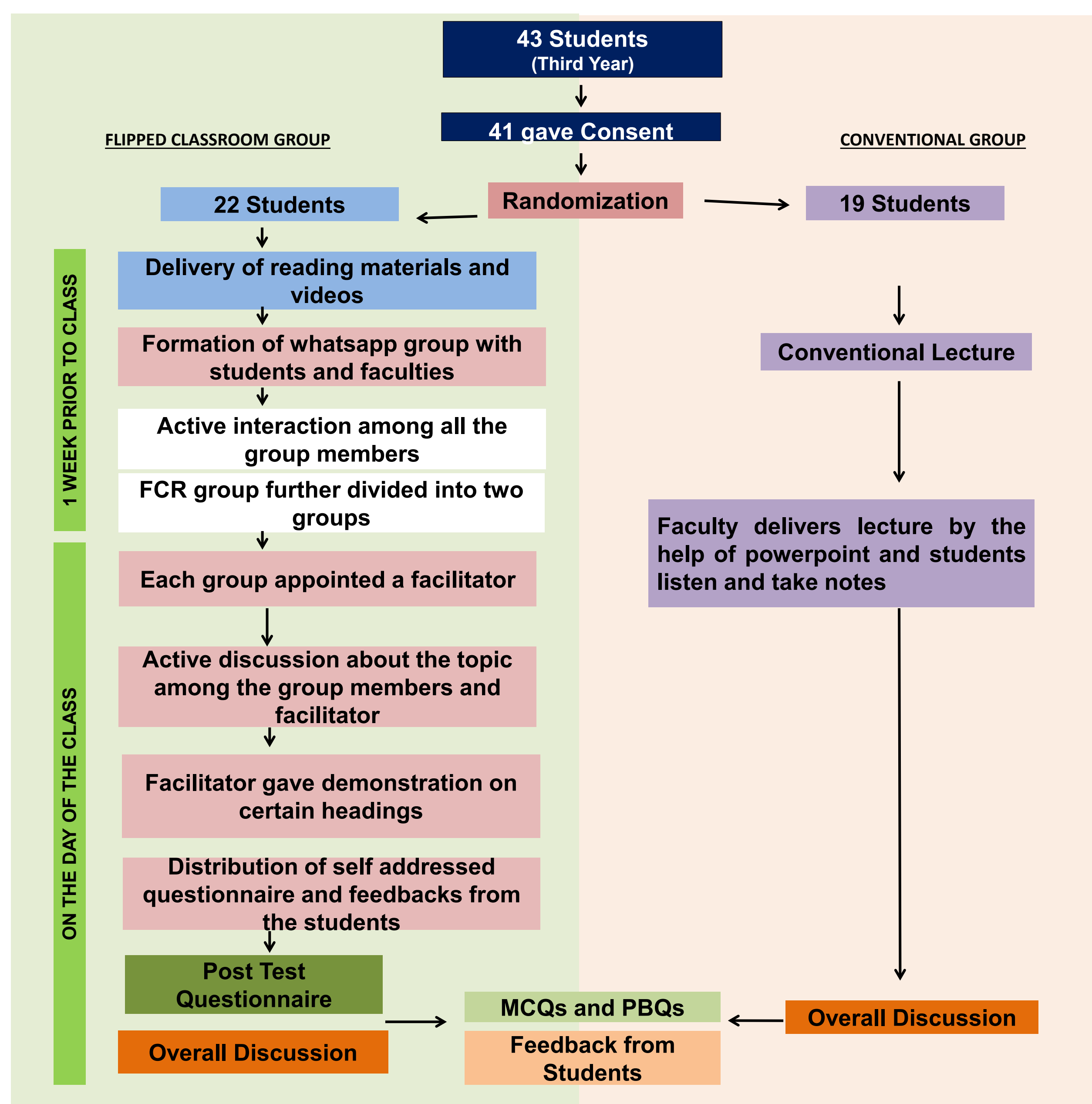
TOOLS PREPARED & DESIGNED FOR CONTENT AND PROCESS ASSESSMENT

- Powerpoint presentation for the topic
- Selection of Reading materials
- Selection of Video
- Post test questions (MCQs and PBQs)
- Tutor Guide
- Post intervention questionnaire
- Student feedback
- Instruments for demonstrations

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Students perception of Flipped Classroom						
S.N	Questionnaire:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The Flipped classroom is more engaging than traditional classroom	13	8	0	1	0
2.	All Flipped videos in this course are interesting.	4	14	4	0	0
3.	I like watching short flipped videos	5	14	2	0	1
4.	Flipped classroom give e a chance to communicate with other friends.	15	5	2	0	0
5.	The Flipped classroom gives me more time to practice subject outside the class.	8	13	1	0	0
6.	The teacher's feedback is very important in Flipped classroom.	6	14	2	0	0
7.	The activity in the classroom should be more interactive and communicative.	11	8	2	0	1
8.	What do you think could be incorporated in this method to make it more effective?					

Process of Research



STUDENTS OPEN FEEDBACK

1. Content of course structure:

- More clinical cases with case scenarios and pictures may help to relate more effectively with the course content
- More videos will be less boring
- More practicals and demonstrations will help to clear any doubts then and there
- Search , research and present sessions for students as well may help to retain what is learnt.

STUDENTS OPEN FEEDBACK

2. Learning environment:

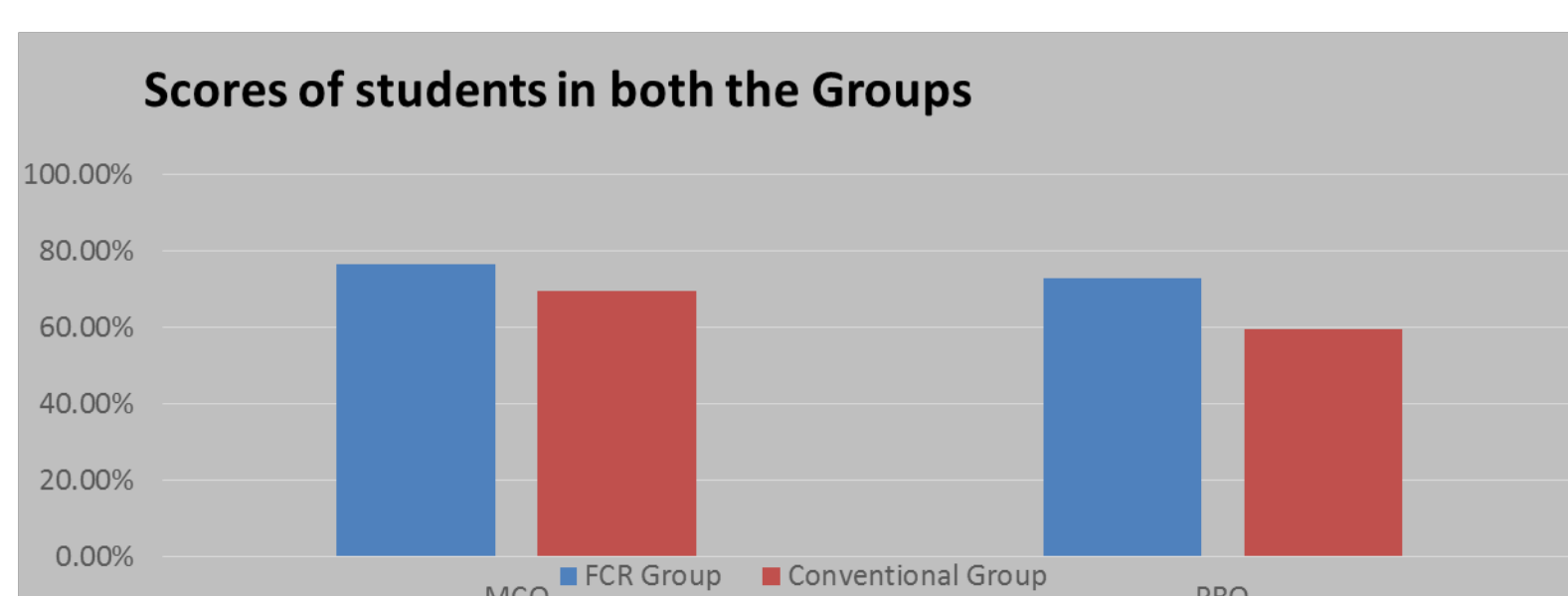
- More interaction during discussions in the in class time
- More interaction and discussions in out of the class groups in internet
- Loud voice of the facilitator
- Audio visual aid during small group discussions

3. For out of the class activities:

- Allocation of particular time for group work and interaction
- Not very lengthy off the class discussions and assignments

RESULTS:

- Of the total 43 students, 41 gave consent.
- There were 19 students in conventional lecture group and 22 in flipped classroom group.
- Among the 19 students 10 were male and 9 were female students in conventional lecture group.
- Among the 22 students 9 were females and 13 were male students.



CONCLUSION

- The students in FCR group definitely performed better in problem based questions.
- Even though the difference was not significant the students of the FCR group scored more in the MCQs
- A study of greater sample size with longer duration of time and multiple number of sittings is required to confirm this result.
- Students felt that introduction of FCR will help them turn the conventional classroom into more interactive and student friendly one.
- Students seemed to enjoy flipped classroom more than conventional classroom.
- Students also felt that FCR use of videos and practical sessions will help to increase their learning
- Even though few students felt that FCR was too lengthy most students were ready to accept FCR as their teaching learning modality.