# Use Of Facebook As Teaching Method In Learning Microbiology For Second Year BDS Students

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**Abstracts:** Background& Objective**:** Information technology has taken a very vital role in everyone's life. Students are using these technologies in day to day life. Social media has become one of the major tool for sharing thoughts, knowledge and photos from anywhere. Microbiology is one of the important subjects in the curriculum of Second year BDS students. They feel little difficult to understand and are often reluctant in asking doubts in the classroom. Facebook as a teaching learning tool was introduced to know feasibility, accessibility and improvement in performance in second year BDS students. Methodology:Sensitization to the whole class about the purpose of the study was done. Students were divided in two groups through random selection as Facebook and control group. They were exposed to the didactic lecture method for various topics. Later it was shared and discussed with Facebook group. Finally formative assessment was done with multiple choice questionnaires. Feedback from the Facebook group was taken to know feasibility and accessibility. They were also asked to comment about the concept of using Facebook as teaching learning tool. Performance was analyzed with the help of Chi Square test after entering marks in Excel sheets.Results:Facebook group performed well compared to the control group in formative assessment. The difference was statistically significant. Facebook group also commented positively on the idea of using Facebook as a teaching learning tool. Conclusion:It is concluded that social media such as Facebook can become one of the teaching learning tool for better performance in dental students.[Kazi M NJIRM 2016; 7(3): 97 - 100]

**Key Words**: Facebook, teaching learning method, Dental students, Technology, Education.

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**Introduction:**Information technology has become an integral part of everyone including dental students. Information technology is transforming dental students and education enormously. Students of the 21st century belong to a generation that has grown up with universal access to online information and are often referred as digital natives or the Google generation.[1]

Students can now access huge quantities of information from a diversity of sources at their own convenience and practically from any location. There are various methods of connectivity through emails, Facebook, WhatsApp etc. which are readily available in their mobile and computers.

Social media originally provided for socialization but are gradually used for educational purposes by many students. Using the potential of connectivity through the social media for educational purpose is a talk of the current era. Recent studies have found that including social media tools into traditional educational environments increases student learning and collaborations.[2]

In India, the social media for the purpose of education is hardly being used. Use of android mobiles by the students has increased tremendously in the world and in India. There are various domains available in social media especially Facebook. Facebook is a social networking website where over 750 million individuals share photos, videos, and comments.[3]

Initially Facebook was designed for college students only which were open to everyone.[4]It is useful website where you can post a comment and can upload videos, photos very easily. This capacity to communicate effortlessly has altered Facebook into an influential virtual community with endless possibilities.

Considering the easy access through the computers and android mobiles, learning process can be made available to the students by using social media. Learning microbiology through such websites will improve the knowledge amongst the dental students.

The present study was undertaken to know the acceptability, feasibility and performance of dental students by using Facebook as teaching method in learning microbiology.

**Material and Methods:** The current study was carried out in Sinhgad Dental College and Hospital Pune India from 1st July 2015 to 31st December 2015 as a part of advanced medical education certificate program. The current study is a comparative observational study between two groups (Facebook group and control group). Before commencing the study, outline of the project was prepared and submitted to the Principal and after permission was sought, finally submitted to the ethical committee of the college. After ethical clearance the study was carried out on second year BDS students. Sensitization about the project was done to all students in the second year. The total students in the class were 40. The initial conformation was done about the accessibility to the Facebook through android mobiles or computers at home. All of them had access to the Facebook from their own mobile phones.

All students were given an equal opportunity to participate in the study by assigning the random selection number to avoid the bias of selection. For practical purpose, two groups were made, the Facebook group consisted of 20 students and control group consisted of 20 students. An informed consent was obtained from the Facebook group before participation in the study.

All students were exposed to didactic lectures in the classroom by author only. At the end of the class the information was shared in parts with the Facebook group daily. The active discussion was carried out amongst the Facebook group. Various topics were taught in the class and later shared with the Facebook group only. Interactions with the Facebook group continued on the topics taught in the classroom till the assessment.

A multiple choice question was given to entire classroom on the syllabus taught in the classroom and shared with Facebook group. The marks obtained were entered in the excel sheet and were analyzed statistically. A feedback was also taken from the Facebook group for feasibility and acceptability. They were also asked to comment about the experience they learnt during the project period.

Statistical analysis was done by using frequency distribution and chi square tests for statistical significance and p- value of <0.05 was taken as significant.

**Results:** In the present study total 20 students in Facebook group and 20 students in control group were included. Various questions were asked related to acceptability and feasibility etc. through feedback form from the Facebook group. For performance of both groups a multiple choice questionnaires was given and analyzed by chi square tests.

**Discussion:** Social media can help in providing enriched and varied active learning atmospheres that are student centered as well as collaborative. However, a significant generation gap is obstructing the integration of social media and technologies into health care courses especially in dental health care education.

Students today are proficient of multi-tasking and that their routine use of social media have no effect on learning.[5]In view of increase in use of social media for sharing thoughts, posts, photos by the students, we had decided to utilize this potential in learning microbiology through use of Facebook.

The present study was undertaken to know the acceptability, feasibility and performance of the students after use of Facebook as teaching learning method. We had taken feedback from the students on various aspects such as feasibility, acceptability, teacher as moderators etc.

This is the first study where facebook has been used as teaching method in learning microbiology in dental students in India as per our knowledge. There are hardly any references to compare the responses from the present study with other studies published.

Students (85%) were in agreement as the current method (didactic) of teaching is satisfactory (Table 1). But students who had participated showed positive response in incorporating newer methodologies such as use of Facebook for learning methods. Almost 80% agreed or strongly agreed to incorporate the idea of Facebook as teaching learning method (Table 2). This showed a positive reaction on the acceptability of Facebook as teaching learning method. This response might be due to easy access to the Facebook through their android mobiles and there is no fear of teacher asking questions directly.

While we had asked them about the feasibility of use of Facebook as teaching learning method, 65% of

students agree that it was feasible but 35% students answered as strongly disagree or disagree (Table 3). This difference of opinion was due to the various reasons. When we had interacted with them they gave reasons such as non-availability of internet at hostels, costs involved in the internet etc.

All students agreed that they can learn themselves also by using Facebook (Table 4). While 45% students strongly agree that they would prefer teacher as a moderator during use of Facebook as teaching learning method (Table 5).

**Table 1: Satisfied with the current lecture method (didactic)**

| Answer | No of students | Percentage (%) |
|---|---|---|
| Strongly agree | 2 | 10 |
| Agree | 17 | 85 |
| Disagree | 1 | 5 |
| Total | 20 | 100 |

85% of students agree that the current method of teaching is satisfactory.

**Table 2: Ready to accept the change in teaching methodology**

| Answer | No of students | Percentage (%) |
|---|---|---|
| Strongly agree | 3 | 15 |
| Agree | 13 | 65 |
| Disagree | 4 | 20 |
| Total | 20 | 100 |

65% of students agreed for change in the teaching method. 15 % strongly agree for the same. Acceptability was there in the students.

**Table 3: Feasibility of inclusion of Facebook as teaching method**

| Answer | No of students | Percentage (%) |
|---|---|---|
| Strongly disagree | 4 | 20 |
| Agree | 13 | 65 |
| Disagree | 3 | 15 |
| Total | 20 | 100 |

65% of students agreed that Facebook is feasible as teaching method.

**Table 4: Chances of learning alone by using facebook**

| Answer | No of students | Percentage (%) |
|---|---|---|
| Strongly agree | 1 | 5 |
| Agree | 19 | 95 |
| Disagree | 0 | 0 |
| Total | 20 | 100 |

100% students felt that they were able to learn on their own through facebook.

**Table 5: Learning with teacher as facilitator on Facebook**

| Answer | No of students | Percentage (%) |
|---|---|---|
| Strongly agree | 9 | 45 |
| Agree | 11 | 55 |
| Disagree | 0 | 0 |
| Total | 20 | 100 |

45% students were in strong agreement that the teacher may act as facilitator while learning through the Facebook

The present study participants were comfortable in using Facebook as teaching learning method which is in agreement with the study carried out by El Tantawi.[6] They found out that majority of students were comfortable in writing posts or comments on social media than speaking in class.

We also evaluated the performance of all students by conducting formative type assessment with MCQ tests on topics taught in didactic lecture and later shared with Facebook group (Table 6). More answers were correct from Facebook group as compared to the control group which was shown to be statistically significant ($p<0.049$). The participating students also gave good feedback about the idea of use of Facebook as teaching learning method. They enjoyed the session and gave positive comments.

**Table 6: Performance of Facebook group compared with the control group**

| | Mean | Number of questions | p- value |
|---|---|---|---|
| FB - right | 12.73 | 15 | .049* |
| C - right | 11.20 | 15 | |
| FB - wrong | 7.27 | 15 | .050* |
| C - wrong | 8.80 | 15 | |

*Statistically significant

Performance of Facebook group was found statistically significant than the control group in giving correct answers ($p<0.049$).

**Conclusion:** The present study had a positive impact on the acceptability, feasibility and in performance from Facebook group as compared to controls. This was a pilot study. To know the long term effects in summative examinations it is essential to continue till the end of the curriculum of second BDS course.

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