INTRODUCTION
Teaching learning process has been evolving though different interactive sessions designed for the students. Interactive seminars enable active participation, peer interaction, questioning the minds of students, handling of debatable issues, effective presentational skills, presenting opinions.(1)
Small study groups foster interactive learning and positive cognitive effects, such as activation of prior knowledge, recall of information, individual and collaborative knowledge construction, and cognitive conflicts leading to conceptual change. Small group learning was also reported to have a direct positive effect on students’ motivation to learn and motivation has been shown to play a central role in promoting group productivity, elaboration of knowledge, and interaction in different settings. Finally, interactive learning has been evaluated more positively than formal lecturing by medical students and medical professionals alike. (2-8)

Seminars were conducted earlier in the department of Physiology, Medical teaching institute in Pune & the involvement of the students was limited. This educational project was taken up to ensure active involvement of all 100 students and benefit them academically as well as professionally in the year 2012. (9)

MATERIALS & METHODS:-
PROCEDURE:-
10 small topics of 3 different systems of Physiology (General physiology, Blood, Nerve Muscle Physiology) were declared 1 month prior to the actual date of seminar. The students were given time to read & prepare. The presentators were included by freewill. 1 student was absent so the number of students were 99 for this study. All the students gave their consent & showed willingness to be a part of this group student seminar.

10 presentators by freewill were given topics declared by the guidance of faculty. They had to identify their leader, rephrasing from notes, summarising the whole event & later report. Groups were formed on the basis of class test marks. Students were shuffled in between average, below average & above average in students.

The present study was taken up to introduce a novel interactive seminar: “group student’s seminar” for the enhancement of the teaching-learning process in Physiology. The study was done on 1 MBBS students (100).

A pretest questionnaire was circulated amongst the students before the seminar & a post test questionnaire after the seminar. The mean score of the pretest group was 3.788 ± 1.95 SD and that of the post test was 6.28 ± 2.005 SD. Statistical analysis was done by using t test where t= 15.519 with 98 ° of freedom. 95% confidence interval for difference = 2.176 to 2.814 where P=0.0001 is highly significant. This showed that group student's seminar adds to the knowledge of the students. Feedback form analysis showed that students benefited in the areas of concept clearance, group interactivity & communication skills were improved.

Later half of the seminars, 75 students were divided into 6 subgroups as:-

<table>
<thead>
<tr>
<th>GROUP</th>
<th>QUANTITY</th>
<th>MEAN marks obtained</th>
<th>STANDARD DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRETEST</td>
<td>99</td>
<td>3.788</td>
<td>1.955</td>
</tr>
<tr>
<td>POST TEST</td>
<td>99</td>
<td>6.283</td>
<td>2.005</td>
</tr>
</tbody>
</table>

MEAN DIFFERENCE = 2.495
12. 37 Students rated the present seminar as excellent, 54 students rated it to be good, 6 rated it to be fair and 2 did not comment.

13. Benefits of seminar stated by the students:
   a) Concept clearing 3  
   b) Knowledge improvement 10  
   c) Group interactivity 22  
   d) Improved communication skills 29  
   e) Improved understanding 14  
   f) Did not benefit 6  
   h) Did not comment 5  

14. Improvement suggested by number of students for the present seminar
   1. More time for presentators & the seminar 36
   2. Time management 10
   3. Technical arrangement 9
   4. Clear idea, presentator's rehearsal, better incentive, snack provision

More questions to audience, presentators, teachers answering.

Prior selection of judges. 44

DISCUSSION

According to Eun-Kyung Chung & others, most students' perceived team based learning activities to be more engaging, effective and enjoyable than conventional didactics & the effect of cooperative learning was also observed. In addition, team based learning improved student performance especially that of academically weaker students. The present study engaged the students since students perceived their role & felt they were benefitted (table 2) & group students seminar was enjoyed by 96 students.(10,12)

According to the studies done by Zuzana de Jong et al, most of the students were satisfied with their tutors or lecturers (87% versus 86% in the small group tutorials and interactive seminars, respectively) and agreed that they had learned a great deal from the problems presented (87% and 84%, respectively) (1). In similar terms in this present study as mentioned in the results 93 students were satisfied with the guidance of the teacher.

Although the students were more satisfied with the small group tutorials, about one-third preferred interactive seminars, which accommodate larger groups, when given a choice according to study done by Zuzana de Jong, Jessica AB van Nies..(1). 97 students preferred to have interactive sessions in the future in this present study. As compared almost all the students out of 99, this is major group who desires to gain knowledge by group students’ seminar.

A majority of students (68.8%) preferred a method that contained peer-led seminars and instructor-led lectures. These results may indicate that integration of active and passive learning into undergraduate courses may have greater benefit in terms of student preference and performance was seen in studies done by Minhas & others. (9).The present educational study showed that 83 students actively learned the topic.63 mentioned peer involvement, suggesting that the students were aware of their fellow mates involvement in the present seminar.

Sprujit A, Jaarsma AD, Hrynchak P, stated that coherence and alignment of the different educational methods, the amount and type of seminar questions and the amount and clarity of the preparation materials affected seminar learning(11,12,13). The present study benefited the students in the areas of concept clearance, knowledge improvement, group interactivity, communication skills & their understand-

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**TABLE no 2 about here**

4. Perception of students in identifying their role

<table>
<thead>
<tr>
<th>Role</th>
<th>Allotted by the Teacher</th>
<th>Perceived by the Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentators</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Comperer</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Judge</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Time keeper</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Team Member</td>
<td>76</td>
<td>55</td>
</tr>
<tr>
<td>Recorder</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Reporter</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Any other</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

It is seen that in the above table no 2 the roles allotted by the teacher were similarly perceived by the students except in the case of time keepers, there were additional time keepers due to different groups(Group A,B,C,D,E). In case of team members & recorders, differences in figures are probably due to students being not actively involved or lack of understanding of their role.

5. 87 Students who perceived their roles founded it to be beneficial, 7 did not find it to be beneficial, 1 found it to be slightly beneficial and 4 did not comment anything.

6. 93 Students stated that they guided by their teacher, 5 felt that they were not guided and 1 did not comment.

7. 37 Students experienced active learning, 7 had passive learning, 54 experienced both kind of learning and 1 experienced no kind of learning.

8. 67 Students felt that their fellow mates actively participated, 8 felt that there was no active participation and 24 did not say anything.

9. 54 Students attended/participated in previous seminars, 44 did not attend the previous one and 1 did not mention.

10. 19 Students rated the present seminar excellent to the previous one, 31 rated it as good, 5 rated it as fair and 44 did not attend the previous one.

11. 97 Students desired to have interactive sessions in the future.
ing improved through this group student’s seminar. This could be due to self interest of the students, the topics that generate interest for learning, peer assisted learning, peer motivation, confidence developed during group interaction.

CONCLUSION:-
Group students seminar could be implemented successfully as a learning process. All 99 students were actively involved as presentators, judges, team members, time keepers, compereers, recorders, reporters. Presentational skills, peer involvement were also achieved through group discussion. Draw backs were time management: recommendation: 3 hours required.

Acknowledgement: I owe my deep sense of gratitude to Dr. A.V Bhore Dean, Smt. Kashibai Navale Medical College & General Hospital, Pune for giving me the permission to take up this study and Dr. K.B. Patil, Professor & HOD, department of Physiology for his support. I am grateful to Dr Nitin Joshi for his encouragement & guidance. I am also thankful to all my colleagues & the non-teaching staff of the department of Physiology.

REFERENCE