

# SGT EDU-TECH CONSORTIUM REPORT, SGT UNIVERSITY, GURUGAON



**2<sup>ND</sup> FACULTY  
CAPACITY BUILDING PROGRAMME  
13<sup>TH</sup> TO 15<sup>TH</sup> FEBRUARY 2017**

## 2<sup>nd</sup> Faculty Capacity Building Programme

<b>Date:</b>	13 <sup>th</sup> – 15 <sup>th</sup> February, 2017
<b>Venue:</b>	Committee Room, Faculty of Health and Medical Sciences
<b>Organiser of the Programme</b>	SGT EduTech Consortium
<b>Coordinator of the Programme</b>	Prof S C Mahapatra Dean, Academic Affairs
<b>Coordination Assisted by</b>	Ms Chetna Jathol (Assistant Professor, Faculty of Education)
<b>Facilitators of the Programme</b>	Prof. S C Mahapatra Prof. M S Sidhu Prof. H S Grover Prof. Indira Dhull Prof. Arun Saxena Dr Priti Aggarwal and Ms Chetna Jathol

# **Faculty Capacity Building Programme**

As the name suggests, **SGT EDU-TECH**, is a consortium of in-house faculty members, trained in teaching technology and have more than 5 years teaching experience. Being an educator is not just about sharing knowledge; it is about making sure that learners truly integrate this knowledge and derive learning out of it. Any teaching that does not result in effective learning is useless. Therefore, to be an effective teacher, one needs to be able to deliver the domain knowledge using the most suitable pedagogical tools. All teachers must constantly study in order to keep up with advances in subject-matter and in theory & practice of teaching. The need for in-service education is most urgent in the teaching profession because of the rapid advancement in all fields of knowledge and continuing evolution of pedagogical theory and practice. For this purpose, Faculty Development Programmes are held from time to time for professional development of teachers. EduTech Consortium of University which is meant for in-service education of teachers of the University initiated this effort of organizing Faculty Capacity Building Programme for Faculty members of the University. After successfully conducting its First Capacity Building Programme from 13<sup>th</sup> to 15<sup>th</sup> December, Second Programme for the Faculty members was conducted from 13<sup>th</sup> to 15<sup>th</sup> February, 2017.

## **Objectives of the Programme**

1. To keep the teacher abreast of new developments in curricular subjects and pedagogy.
2. To explore, reflect on and develop one's own practice.
3. To transform existing practices towards more learner-friendly methods and methods suited to strengthening conceptual learning and understanding rather than rote learning.
4. To acquaint the teachers with the skill of communication and classroom communication practices.

5. To enable the teachers to prepare question papers according to the proper procedure.
6. To help the teachers to know their problems and to solve them by pooling their resources and wisdom.
7. To motivate the teachers for self-study, independent thinking and creativity.
8. To solve day to day problems encountered by teachers in the classroom situation.
9. To equip teachers with the skills required to conduct research in different areas.

### **Day 1 – 13-02-2017**

#### **Inaugural Session**

The Programme started with the inaugural session in the morning at committee room of Faculty of Medical and Health Sciences. Prof. T D Dogra, Pro-Chancellor of the University inaugurated the session with his words of wisdom. He congratulated Prof Mahapatra for successfully conducting previous Capacity Building Programme and gave best wishes for the programme ahead. In his address, he said that a teacher is backbone of any education system so we need to strengthen the teacher for all round development of personality of students of the University. Sir encouraged the participants to enhance their skill of teaching through this capacity building programme. He also gave a brief description of the subject chosen and highlighted the reasons and importance of the same. Along with Prof Dogra, Dr N K Singh, Advisor of the University also graced the occasion. He quoted a very good example for stressing the importance of communication in the field of teaching and recommended that, in such types of programmes there should be bilingual method to facilitate learning. He gave stress to the fact that sometimes we understand things better in our own language rather than in English. In the end, Prof Dogra and Dr Singh appreciated the efforts of the whole team of EduTech Consortium especially coordinator Prof Mahapatra for conducting such programmes for the teachers of the University. The inauguration of the programme ended with a vote of thanks from Prof S C Mahapatra.

### **Session I (10:00-11:00)**

After inauguration, participants were distributed a very comprehensive learning material which has been prepared well in advance by Prof S C Mahapatra. The learning material included all the important topics which were covered in the three days programme. Along with this, there was some material related to some of the very important aspects of teaching. For any such programme it is essential to know whether the intended objectives of the programme have been achieved or not. For this purpose a pre and post testing questionnaire was prepared by Prof S C Mahapatra. Participants were given pre-testing questionnaire to fill the required information. They were given 15 minutes to fill the questionnaire. All the participants filled the questionnaire and returned it back.

Now it was time for participants to have an introduction of themselves. For this purpose, all the participants were divided into team of two participants each. Members of each team were given ten minutes to know each other and after that they were to introduce each other rather than introducing themselves which often happens in such programmes. Participants of all the teams introduced each other in a very interesting manner which really made everybody comfortable with each other. In the end of the session coordinator of the programme, Prof Mahapatra introduced Ms Chetna Jathol and Ms Chetna Jathol introduced Prof Mahapatra. This process really helped the Faculty Members to have an understanding of each other. Another activity was also planned by Prof Mahapatra for introduction session of participants. The purpose of activity was to develop team spirit among the participants. For this, each participant was given a balloon & an all pin and they were asked to save their balloon and the one having balloon in the hand in the end would be the winner. The moment activity started participants started pricking each other's balloon and saving their own. In the end they were told about the relevance of that activity and also about the significance of being a team. The activity was appreciated by all the participants and moral of the same was understood by one and all in a very good spirit. The session was followed by Tea Break.



### **[Discussion after Participant's Presentation]**

#### **Session II (11:30-1:00)**

In the second session of the day which was on "Cognition and Learning", Resource Person Prof. Indira Dhull from Faculty of Education started her discussion with very basic idea of concept of knowledge and learning. She then delineated on Rationalist and Empiricist group of thinkers. Then she delineated on three domains of learning i.e. Cognitive, Affective and Psychomotor. She also gave information to the participants regarding the action verbs to be used in framing the instructional objectives in the behavioral terms. With the help of some relevant examples Prof Dhull discussed that there has been a paradigm shift in the process of teaching. She said that the time has changed at a very fast pace and accordingly we need to change our teaching strategies for the optimum learning of the students. With the help of a power point presentation participants were enlightened with the modern techniques of teaching and learning. Participants were made aware about the constructivist, cooperative learning and blended learning approaches of teaching-learning. Participants were encouraged to ask the questions to have a better understanding of the concept. All the doubts of the participants were clarified by the speaker. The session was followed by the Lunch

#### **Session III (1:30-3:30)**

Last session of the day was about Teacher's values and style, communication skills and preparation of the curriculum. This session was jointly conducted by Prof S C

Mahapatra and Ms Chetna Jathol. Participants were acquainted with the concept of teaching and the professional ethics and values associated with the profession of teaching. Skill of communication with special reference to classroom communication was also discussed in detail by Prof Mahapatra. To understand the concept of miscommunication, an activity was done with the participants. A message was whispered one of the participant and he was asked to transfer the same message to the other participant in the same manner and further the process was repeated with all the participants. In the end of the process the last participant was asked to speak the message aloud. To everybody's surprise the message was completely different from the original message given to the first participant. With the help of this interesting activity it was conveyed that due to some barriers miscommunication happens and the same thing applies to classroom communication also. This activity made the presentation even more interesting and message was conveyed in a very effective manner. All the participants appreciated the way this concept was explained.

After this participants were explained about the concept of syllabus and curriculum. They were told about the difference between syllabus and curriculum. Format for making the both syllabus and curriculum was already distributed to the participants. They were asked to prepare curriculum for a topic of their choice. Some of the participants presented the prepared curriculum and instant feedback was given to all of them by Prof Mahapatra, Ms Chetna Jathol and other participants.

Along with this transaction analysis was also described through a role play technique. One of the participants was asked to play the role of kid and two others were asked to play the role of kid's father and friend. In this role play child was shown reluctant to go to the school and his father and friend were convincing him to go to the school. But the way his friend asked him the cause of the problem was different from father's way. Therefore child shared his problem with his friend rather than the parents. Through this role play teachers were motivated to be friend, philosopher and guide of their students. Only then they would be able to solve the problems of their students. Active involvement of all the participants in role play helped in learning in a very interesting manner.

The day ended with the qualitative feedback from the participants about all the sessions of the day.



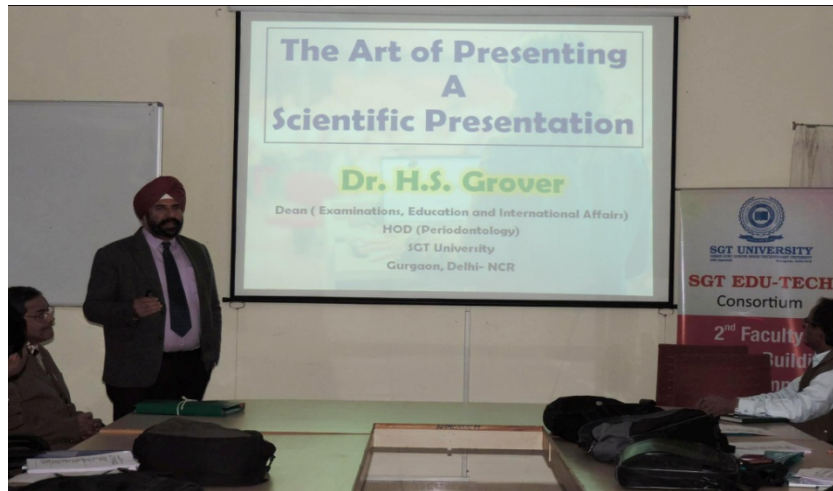
## **Day 2 – 14-02-2017**

### **Session I (10:00-11:00)**

First session of the day was about “How to make effective PPT for teaching” by Prof H S Grover, Dean, Examination & International Tie-ups. With the help of relevant slides Prof Grover explained the concept of making effective PPT in a very impressive manner. He outlined different points to be kept in mind while preparing a PPT. Even the minute details regarding effective presentation were discussed by Prof Grover. He told the participants that their seminar should tell a scientific story in a way that everyone present can understand and go home with some lesson learned. He also gave pictorial examples of a bad presentation. Along with this, he also discussed about Journals and Poster presentation. He showed few very good posters to the participants which helped them in getting an idea about making a scientific poster presentation. He delineated upon the rules of making a poster. Concept of Journal Clubs was also very well explained by the speaker. He explained to participants that Journal clubs are necessary educational interventions that can improve reading habits and helps in getting knowledge of biostatistics and many other things. Dr Grover not only spoke about making of a presentation but also about the presentation of the PPTs. He summed up



his lecture by telling the good, bad and ugly in power point slide shows. In the end there was an open discussion with the participants.



In Prof Grover's presentation he deliberately made few bad slides to participants so that they can have an idea about avoiding these kinds of mistakes. Interesting thing was that in the end of the session, Prof Mahapatra asked participants to come one by one and correct these slides & convert them into good slides. This exercise led to the immediate feedback of the lecture in a very practical way. Learning by doing is the best way to understand the subject matter.

### **Session II (11:30-1:00)**

Second session of the day was about "Planning and Implementation of Research" by Prof M S Sidhu. In this session participants were acquainted with the types of research on the basis of different classifications. Prof Sidhu then explained the steps or actions required for effectively conducting research through a flow chart. Participants also



**[Prof Sidhu on a journey with Research]**

learned about the process of implementation of research. For implementation of the research, Prof Sidhu explained the importance of three things i.e. Departmental Review Board, Institutional Review Board and Funding and Research Grants. He discussed with participants that Departmental Review Board is important for providing a robust and constructive peer review process for research proposal. He gave stress to the relevance of Institutional Review Board by saying that it serves as a competent body to review, evaluate and decide on the scientific and ethical merits of research proposals. Prof Sidhu also described extramural grants and discussed about various funding agencies like DST, ICMR, CSIR, DRDO, AYUSH etc. Participants were given examples of our own University research proposal which were given grants from the aforesaid agencies. Prof Sidhu encouraged participants to make research proposals and to get grants from the funding agencies. Participants were given answers to their queries simultaneously.

### **Session III (1:30-3:30)**

Third session of the day was divided into two parts: first part of the session was about “MCQ” and the speaker of this part was Prof Arun Saxena and second part of the session was about “OSPE & OSCE” by Dr Priti Aggarwal.



**[Prof Saxena teaching MCQ & Item Analysis]**

Prof Saxena started his lecture by discussing about the commonly used tools of examination. After discussing briefly about the tools, he explained to the participants components of multiple choice items. Participants were given information about the directions to be followed while framing MCQs. With the help of some very good examples Prof Saxena elaborated on different types of formats of MCQs and their uses. In a very comprehensive manner he described the guidelines for construction of MCQs. Participants were involved in the discussion by asking questions about their own experience of framing MCQs. After telling the participants about framing MCQs, the speaker acquainted the participants with the process of preparing a complete paper containing multiple choice questions.

The second part of the session was about OSPE and OSCE

Overall the session was very productive and ended with the feedback for the day.

### **Day 3 – 15-02-2017**

#### **Session I (10:00-11:00)**

On third day of capacity building programme, first session of the day was on “Role of teachers and professional development as teacher”. She started her lecture by quoting John Dewey the famous educationist that “If we teach today’s students as we taught yesterday’s, we rob them of tomorrow”. With this quote she stressed upon the paradigm shift in the process of teaching and changing needs of the students. Ms Jathol then discussed about the various roles a teacher has to play and tasks to be performed in teaching profession. She said that teachers are considered to be the second parents of child. Therefore a teacher has to play the role of parents, counselor, leader, examiner, curriculum planner, role model and many more in their profession. For performing their best in all these roles it is necessary for a teacher to develop their skills continuously. The need of in-service teacher education was very well explained by the speaker. She told the students about Orientation and Refresher Courses being conducted by Human Resource Development Centres (HRDCs) and encouraged Faculty members to participate in these programmes. She also shared her own experience of attending these programmes. Other important topics discussed by Ms Jathol were Major and Minor research projects, faculty exchange programmes, membership of professional bodies, extension lectures, publications etc. Information about Massive Open Online

Courses (MOOCs) was also given to the participants. Overall the session was very informative and appreciated by all the participants.



**[Dr Preeti Teaching OSPE & OSCE]**

### **Session II (11:30-1:00)**

In the first half of second session of the day, the topic of the discussion was ***“Item Analysis”*** by Prof Arun Saxena. First of all Prof Saxena discussed about the purpose of item analysis in the process of evaluation and assessment. Then he explained in detail the whole procedure of item analysis to the participants. Calculation of Difficulty Index and Discrimination Index was told to the participants and they were asked to calculate the same by giving them some data by the speaker. Participants were simultaneously guided whenever they had any queries and doubts regarding calculations. Application of item analysis in classroom teaching for formative evaluation was also discussed by Prof Saxena.

In the second half of the session participants presented their power point presentations. Participants were given an idea about making these presentations on previous day by Prof Grover and Prof Mahapatra. The participants were asked to make a five minute presentation on topic of their choice. Each participant was given feedback immediately after the presentation by Prof Mahapatra, Ms Chetna Jathol and also by the other participants. Feedback was given not only on the slides but also on the skill of teaching and classroom communication. All the participants took feedback in a very constructive

manner. Half of the participants presented their slides in this session and remaining participants presented in the third session of the day. The session was followed by the Lunch.

### **Session III (1:30-3:30)**

In last session of the day remaining participants presented their slides. This session was jointly conducted by Prof S C Mahapatra and Ms Chetna Jathol. The presenters of this session were even better as they already witnessed the presentations of their colleagues and had feedback on their presentations. The best thing was that most of the participants kept in mind the presentation skills and communication skills as discussed with them in the previous sessions by Prof Mahapatra and Prof Grover. Some of the participants also presented the instructional objectives in behavioural terms which were prepared by them on Day 1. By this time, Mr. Manmohan Chawla, Chairman of the University and Pro-Chancellor, Prof T D Dogra also arrived for the valedictory session. Chairman Sir appreciated the efforts of Prof Mahapatra and shared his experiences related to the teaching-learning with the participants.

Participants were given certificates of completion by Chairman Sir and Prof T D Dogra. The day ended with the qualitative feedback from the participants about all the sessions of the day. Since this was the last day of the programme participants were also given post-training questionnaire to have an idea about their understanding of the concepts discussed during the programme.



[Rewarding the Participants & Facilitators by the Chairman]

## Programme Evaluation

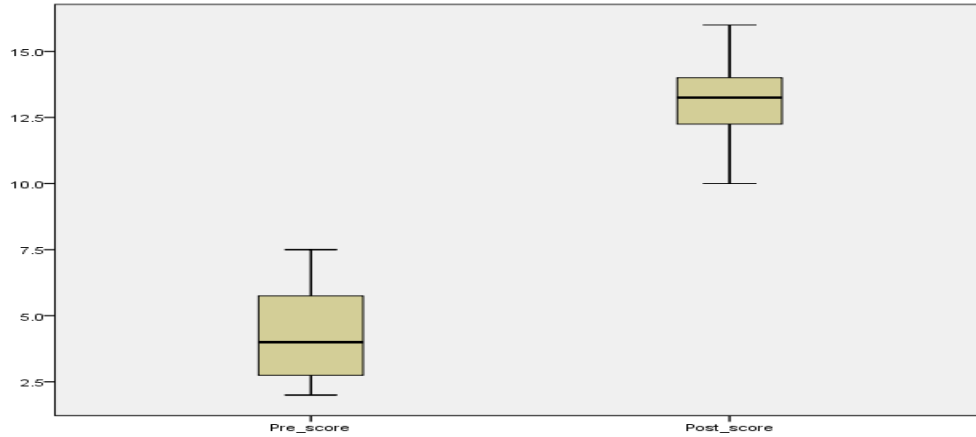
**Table-1**

Answering Score	Pretest score(n=12)		Posttest score(n=12)	
	mean	sd	mean	sd
<b>No. of questions attempted</b>	<b>13.67</b>	<b>3.52</b>	<b>17.42</b>	<b>0.76</b>
<b>Correct answers</b>	<b>4.38</b>	<b>1.8</b>	<b>13.04</b>	<b>1.53</b>

The participants' knowledge was evaluated using a questionnaire(18 questions), before the programme and at the end of the programme. It was found that the average no. of questions attempted by the participants before the training was  $13.67 \pm 3.52$ , whereas the average no. of questions attempted in the test after the training was  $17.42 \pm 0.76$ .

On assessing their scores, it was found that the mean score in the pre test was  $4.38 \pm 1.8$ . However the mean score in the post test was  $13.04 \pm 1.53$ . There was an overall increase in the mean score in the pre test and post test, which was found to be statistically significant(Using paired t test). The graphical presentation is given below in the box plot.

**Fig 1: BoxPlot**



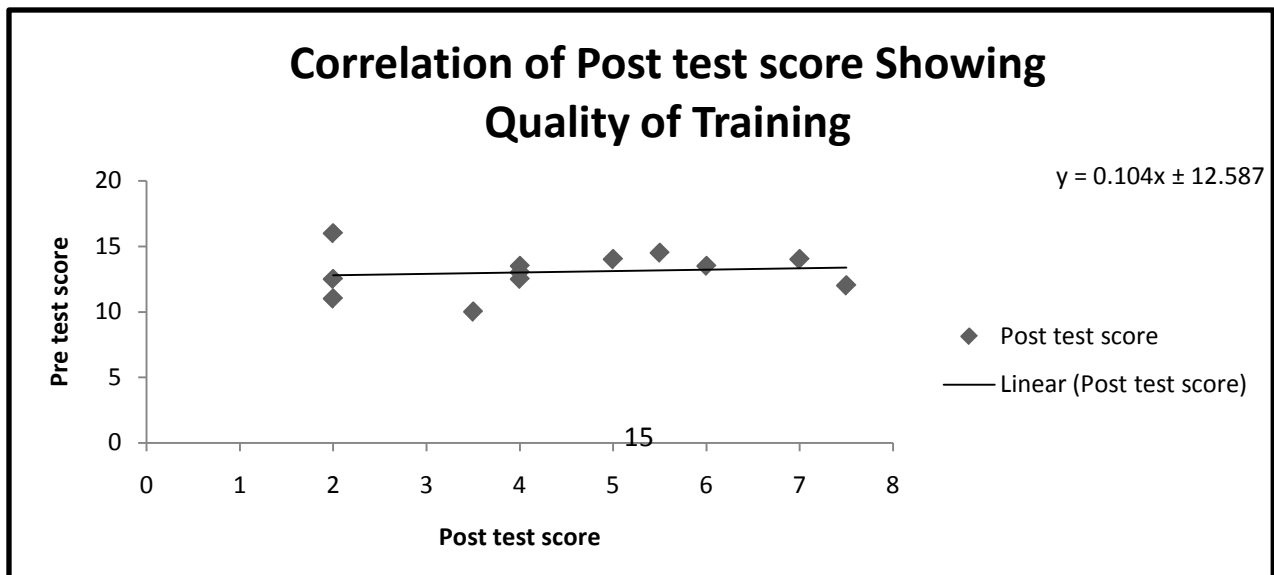
**[Fig: showing the mean dispersion of the training score]**

In order to observe the increment of knowledge the answers were subjected to pair t test. It was seen that there was a sufficient knowledge gained showing Pat 0 level, suggesting that there were new knowledge which significantly improved in the participants. (table-2). This proves there has been Teaching Capacity Building in the participant to a satisfactory level.

Paired Samples Test								
Score difference	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pre score - Post_score	8.66667	2.31922	0.6695	10.14023	7.19310	12.945	11	0.000

**Table 2: Increment in participants' knowledge**

The Quality of the knowledge increment was further tested by Correlation of the status of knowledge in the participant, by a regration model. As shown in Fig.2 it was an



excellent fact that the post knowledge increment was uniform in all participant and thus was qualitative in nature. The value of  $y = 0.104x + 12.587$  proving the linear nature of the post training which was almost similar to the mean ie  $13.04 \pm 1.53$ .

**Fig 2:Scatter graph with Corelation in the level of knowledge after Training**

\*Two participants did not provide feedback, \*\*One participant did not provide feedback

**Table-3: Feedback Analysis**

The Quality of the training was further analyzed by daily Feedback taken from the participants on plain paper without their names or signature. Two participants (\*) did not provide feedback on second day and One participant (\*\*)did not provide feedback on the last day The facts are presented below (Table-3)

Feedback was received from the participants at the end of session on each day of the capacity building programme. On assessing the feedback forms, it was found that on the first day of the programme, 87% opined that the sessions covered in the programme were very informative and would be useful to them. On the second day,80% participants said that the sessions were excellent and emphasized on the need of such capacity building programmes on a regular basis. However on the third day,94% of the participants opined that the sessions were interactive and excellent.

Daily Feed-Back	13.02.2017 N=15				14.02.2017 N=13*				15.02.2017 N=14**			
	+/-	+	+++		+/-	++	+++		+/-	++	+++	
Quality of Capacity Building program according to participants	13%	-- -	87%		....	....	80%		.....	....	94%	

## **Feedback**

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<b>Satisfaction of Participants</b>	<b>Number</b>	<b>Percentage (%)</b>
<b>Above Satisfactory performance</b>	07	78%
<b>Satisfactory</b>	02	22%
<b>Below satisfactory</b>	Nil	NIL

### **Performance of Curriculum exercise**

A curriculum exercise was assigned to the participants. The purpose was to train the faculties as to how to prepare or modify the syllabus and curriculum. This will facilitate the teachers of the university to develop and improve the syllabus as well as curriculum of this university to render excellence to the university. After the training and explanation with hands on exercise, a majority i.e. 78% of them performed above satisfactory level and 22% had satisfactory performance. Dean of Allied Health Sciences and pharmacy also sent personal obligation to the Trainer post facto observation in improvement of their teachers.