COP SUMMARY SERIES - 2

Methods for Evaluating Your Teaching

Dear Colleagues,

This was our COP topic for the month of August that was discussed amongst all the groups consisting of members from NDP batches 1 and 2. !

Courses need to be continuously reviewed and renewed to ensure the teaching (including the teaching and learning activities and the assessment) and course (objectives, learning outcomes and contents) quality are upto standards and up-to-date. This is the core duty of any teacher; whether new or experienced staff. Evaluating our own teaching is a way to identify the strong aspects of our practice, as well as areas of change and improvement. Teachers should take initiatives and responsibility to evaluate their teaching and make improvements over time. It is important to understand that evaluating our teaching does not mean we are a bad teacher, in fact, it means quite the opposite.

A good teacher teaches and learns.

We could be the best teacher with the best course materials, course activities, learning outcomes and assessments. But as time changes, courses need to revise to suit the needs of society, employers and the diversity of students. A good teacher will take in criticism, initiate evaluation and learn from their students.

The summary of the best practices adopted by faculty evaluating their own teaching are given below

1. **Students' feedback on teaching**

Students' perception of learning experience in class is sometimes the most direct way to weigh how effective a teacher delivers teaching. After all, the goal of education is to make students learn and understand. Therefore, what students perceive and experience in class would directly determine how effective they are learning. Collecting students' perception of teaching are carried out several times in the semester (at least once at mid-term and once at the end of term), to allow opportunities to correct poor practices rather than leaving them till the end of course. Common methods to collect information about students' perception towards teaching are

  (a) **Surprise Tests**: Surprise tests in tutorial classes to check the understanding of students
  (a) **Quiz assessment**: One of the faculty members has applied this approach to assess the understanding of the topics of subject by the students. The open-quiz is one of the approaches that have been applied in such a way that response received by the student in quiz marks can be helpful to assess the level of delivery of lecture. The method is repetitive and found satisfactory.
  (b) **Background knowledge**: In this approach, before starting a fresh lecture, faculty spends some time discussing the concepts of previous taught topics and assess their lecture based on the response by the students of the questions asked of them. This method is continuously applied for each lecture.

(c) **Online class Survey**: One of the faculty members has taken the initiative to create Google-form for taught lecture and has set several assessment parameters. This form link is shared with student's through 'whats-up' App and students were showing more interest to fill the form. Based on the response received, the faulty get feedback about the subject's topics along with graph based analysis.

(d) **Group assessment**: This approach is quite satisfactory as experienced by the member teachers with large number of classes. This is particularly applicable for practical-based courses which involve equal contribution of hardware and software components. The set of parameters has been designed for both components and understanding of the topics can be assessed based on marks received by group of students.

(b) **Tutorial Assessment**: In this approach, the faculty sets the tutorial based on taught lectures. The marks obtained by students in each question is helpful to assess the teaching e.g; if majority of students score good marks in particular question signifies better understanding of topics whereas inverse signifies a poor understanding of the topics. The performance of students during tutorial and lab sessions can be a criterion to evaluate teaching.

2. **Feedback from observation by other colleagues and experts**:

Teachers invite other colleagues or experts to sit in their classes and directly observe how teaching is conducted (including teaching style, contents, pace etc.), to give feedback and critique . Similar to video recording, this observation allows them to become aware of many things that they are too busy to notice while conducting their teaching. They discuss with the observers before the class observation regarding the areas of focus, and discuss the important points in a debriefing afterwards.

(a) **Peer-observation**: Junior teachers invite other junior peers to observe and give feedback to their teaching. This is free from any political risk and peers are willing to freely exchange and share their ideas honestly.

(b) **Observation by senior colleagues**: Teachers also invite experienced senior teachers to be their observers. Senior teachers can often provide useful opinions for new teachers to get started smoothly. Nevertheless, political risks can be a concern since some teachers behave differently when being observed by seniors who make decision about their promotion and   tenure.

(c) **Observation by professionals from an outside party**: Teachers may consult their university's teaching support center or similar organizations to arrange a teaching consultant to observe their classes. These consultants do not necessarily need to possess adequate knowledge about the subject being taught, but they can provide objective comments to teachers on general presentation skills, skills of facilitating student discussions, and ideas for active and interesting learning approaches.

3. **Self Reflection**
Some faculty members also opined that reflection and contemplation are extremely important tools for evaluating teaching and assessing ourselves, and a few use this simple, intuitive method and find it to be the most useful and rewarding. One must be able to analyse the rationale for

evaluating teaching i.e. why is it being done. The role of self-evaluation/self-satisfaction plays a big role in evaluating teaching.

4. **Feedback sources for Lectures:**

(a) The traditional methods of evaluating teaching, such as asking students about learning from the current class at the end of a lecture; or at the beginning of the next lecture still seem to be most popular and successful. Doubts and discussions of previous class for 5 min – although concept is repeated however, continuity is maintained. In case if students have missed the class, they are able to cope up. The teaching is also evaluated by revision of main points at the beginning of the class and summarizing the lecture at end of the class while asking few questions. This also assists the student-teacher connectivity in large classrooms.

(b) Asking close-ended standard questions during lecture classes is a good way to get student feedback. Doubts raised and opinions presented by students during lecture, tutorial and (or) lab sessions can give a feeling of depth of learning and concept-clarity of students during teaching. Cross questioning for better discussions and outputs are highly encouraged. In the lecture classes, it is effective to ask questions from the students after every 15 min or so. Also, small numerical problems from the theory taught are an effective way of evaluation. Informal/surprise quizzes are another effective tool to engage and evaluate the students.

(c) Student's facial expressions and interactive sessions after completing a particular topic/session/ lecture are observed to give an indirect feedback of teaching

(d) Performance in quizzes, surprise tests, assignments, projects, MST and EST can be used as a tool to evaluate teaching. Mid-Semester SRS, 24X7 online student survey portals and other online sources are utilized to evaluate the whole teaching process.

(e) Minute paper is a good evaluation technique especially in big classes. Last 5-7 minutes are sufficient to take students written feedback on the lecture. This activity, conducted once a week helps the teacher to incorporate changes in the teaching.

(f) Interdisciplinary collaborations should be encouraged so that bright students could use their creativity, expertise of various teachers and bring outcomes beyond the conventional outcome of a course.

(g) 'Learning by mistake' is an interesting and innovative method of evaluating teaching.

(h) Video assignments proffer a more detailed understanding of students' learning and thus act as a good method of evaluating teaching.

(i) The teacher-student interaction levels enhance the teaching evaluation. The random comments of students assist in evaluating teaching. After explaining a given concept and its area of application, ask questions as to what are the other areas of application where this concept could be applied.

(j) The implementation of live projects and student involvement and their associated queries is an indirect measure of teaching evaluation.

(k) It was also suggested to use a feedback form in the form of questionnaire to evaluate the teaching methodology and content. The feedback form may be used thrice in a semester to enable the reflection and action over the teaching evaluation. Moreover, the form may be a hard copy or Google form.

(l) Use concepts like the muddiest point etc. and take feedback with tools like the minute paper etc.

(m)　　Keep suspense, ie. provide incomplete solutions pertaining to a concept to the class, and then engage them to complete the solution.

(n) Use the mastery model, wherein the teacher proceeds to the next topic only when the entire class agrees that the concept has been understood well by all.

5. **Feedback sources for Labs/Tutorials**

(a) Viva-voce during checking tutorial note books. Asking questions for 5 min before and after lecture (during lecture classes) is also very effective.

(b) Building the project based learning will assist in evaluating the teaching particularly in labs.

(c) Engage students in problem based learning e.g. make them work on live projects (real-life problems).

(d) Asking questions to students and student participation in labs/tutorials is an indirect measure of evaluating the teaching.

(e) Surprise tests in tutorial classes to check the understanding of students

6. **Feedback in large classes**

Evaluating teaching by classroom assessment techniques (CAT) such as one-minute paper, muddiest point, one sentence summary, etc are good for large class. However, the challenges associated with the implementation of these techniques for large groups specifically 250 and 450 were discussed and was a major concern. For large class groups some IT tools (like online survey, mobile APPs etc.) will help to get instant and true feedback just after completion of class (Although not true each time as all the students need not be serious to fill instant feedback/survey). In a large class, all students have different prior knowledge, level of understanding and expectation from the course, Personal reflection could be a good tool to improve one's teaching. Following applications are advised to be adopted in order to gain effective teaching evaluation system in large class scenario so that student can actively participate in feedback.

❖ Acadly – check in to a smarter class (www.acadly.com)
❖ HakerRank – one of the best ways to prepare for feedback interviews (www.hackerrank.com)
❖ PlayKahoot – play more, anywhere and anytime on your own or with students, friends (https://kahoot.com/)

7. **Conclusion:**

A most important aspect is to reflect upon WHAT is it that we want to evaluate in our teaching? Faculty identified the following items for evaluation:

- Organization of the course material
- Methods of delivery
- Our relationship and behaviour with students
- Enthusiasm for the course we are teaching/ enthusiasm for teaching per se!
- Our knowledge of the subject.
- Assessment techniques and suitability of learning outcomes.
- Student's perception about teaching

It was concluded that the "Evaluating Teaching" may be achieved by a variety of methods which can be categorized in the following manner:

1. Measurable Evaluation
2. Non-measureable Evaluation

In measureable evaluation, the techniques such as CAT, feedback form, online survey assist in evaluating the teaching. One can assess the results, interpret it and hence is able to reflect and act upon it. However, the frequency of application of this method may not be significant (three to four times in a semester) especially for large classrooms. *Poll Questions, Play Kahoot Online Quiz, Normal & Makeup Quiz, Paper Quiz, General Quiz, Feedback through Survey, Crosswords, Minute Paper, Cartoon Based Assignments, Interaction with Students (to connect real world), 3or 4 questions solving on Blackboard, 1 question (application based) etc.*

In non-measureable evaluation, the techniques such as asking questions, enhancing student participation, etc. assist. This particular method may be applied frequently in the classroom and depending upon faculty's judgment, one can reflect and act on it. It was deliberated that the implementation of both measureable as well as non-measurable evaluation shall assist in effective "Evaluating Teaching". Also evaluating teaching is a continuous process.