A Phased Faculty Development Program to Improve Teaching and Learning

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He earned his PhD in Aerospace Engineering from the University of Michigan, Ann Arbor and has conducted Post-doctoral Research in Mechanical Engineering at Purdue University West Lafayette.

Over the last four years, as an advisor with IUCEE (Indo-Universal Collaboration for Engineering Education), he has developed several workshops, modules and webinars and offered over 40 workshops for more than 1100 engineering and dental faculty, school teachers and department heads from 25 educational institutions on course design, outcome-based education, student-centered learning, assessment, research and leadership. He has published over 30 research papers and has 2 patents.
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Evidence-based Practice: Since April 2016, Vishnu Educational Development and Innovation Centre (VEDIC) has been conducting several faculty development programs on teaching, research, leadership, self-development and technical topics for the educational institutions of the Sri Vishnu Educational Society (SVES) in India. Roughly 50% of the engineering faculty at SVES have undergone one or the other program at this center so far. One of the programs offered was a phased intervention program that involved a sequence of workshops, classroom observations and Faculty Action Teams mainly focused on the areas of teaching and learning and emotional intelligence. The faculty workshops initiated the creation of a faculty teaching portfolio with specific assignments followed by the online submission of reports of faculty activity. These reports were double-blind reviewed by a set of selected faculty reviewers. Based on these reviews, a set of faculty were selected for a second workshop approximately 2 months after the first workshop. This was followed by classroom observations and confidential feedback on specific aspects of their teaching. In the next phase, small groups of 4 interested faculty members were chosen to participate in ‘teaching squares’. In these ‘teaching squares’, the faculty members participated in facilitated discussions on class session planning, observed each other and collected learning assessment data as evidence of attainment of student learning outcomes. In this paper, results from these interventions on the attainment of specific workshop outcomes among faculty including implementation of some best practices in teaching will be reported. Specific attitudes and misconceptions related to teaching among higher education practitioners in India will be discussed.

Background

All India Council for Technical Education (AICTE) dashboard [1] shows 3124 approved engineering education institutions in India with a total faculty count of 338,193 catering to an undergraduate student intake of 1,405,405 in 2018-2019. This is a significantly large number of students and educators. In this scenario, it is surprising that while a school teacher is required to have a bachelor’s degree in education, there is no equivalent requirement for engineering educators at these educational institutions. In other words, these engineering educators enter the teaching profession without any training in education. AICTE has recognized this gap and has recently announced requirements for training for new engineering educators [2] as well as for practicing faculty members at these institutions. Addressing this gap requires a multi-pronged systematic approach that is outcome-based and is of sufficiently long duration of engagement.
In the United States, since 1991, the American Society for Engineering Education – National Effective Teaching Institute (ASEE-NETI) workshop [2] has been offered as an orientation program aimed at new faculty. This program is an effective short-term workshop that introduces new and recent faculty members to the art and science of teaching in an informative and engaging manner. Felder and Brent [3] present a range of practical teaching strategies and ideas from their vast experience of conducting such workshops that this has become a must-read for all serious educators and faculty training centers. Felder et al. [4] describe the need for faculty development in engineering and describe best practices and recommendations for content and program formats for faculty development programs. Further, they describe the advantages and disadvantages of each of the formats. Gunersel and Etienne [5] describe the impact of a faculty development program on teaching conceptions and strategies based on interviews of the participants. While several faculty development programs have been part of the centers for teaching and learning at most higher educational institutions in the United States, there is currently no mandatory requirement for training in teaching and learning for new educators starting to teach. Further, most Universities in the United States do not require the demonstration of improved teaching quality of the faculty or the demonstration of improved student learning as criteria for promotion and tenure decisions [5].

In contrast, most educational institutions in India are teaching-focused institutions some of which have realized the need to have longer-term approaches to train the educators to create an impact among their students in the classroom. Even though, there are still no mandatory requirements for training in teaching and learning for new educators in India, there have been two major initiatives in recent years for faculty empowerment and training. One is the Wipro Mission 10X program that was started in 2007 to address this gap among engineering and science educators in India (more information is available in [6]). Another is the IIEECP program offered by IUCCEE and IGIP for engineering educators in India (more information is available in [7, 8]). Apart from these major initiatives, there have been several stand-alone faculty development programs offered by several institutions in India to address this need at a smaller scale.

One of the most recent faculty development programs offered in India, is offered at a unique off-campus residential training facility set up in the year 2016. Sri Vishnu Educational Society (SVES), comprised of 8 educational institutions in South India, set up Vishnu Educational Development and Innovation Centre (VEDIC) to train its faculty and students. Of these institutions, 4 are engineering educational institutions with approximately 800 faculty members among them and close to more than 10,000 students.
The topics offered in this center for faculty were focused on student-centered learning, outcome-based education, active learning approaches, learning assessment, use of educational technology resources, research methods etc. while the topics for student training covered soft skills including communication, self-discovery through personality tests, thinking style tests etc. These topics were offered mainly as activity-based workshops in which the faculty or students worked in small groups.

Since the beginning of operation of the VEDIC, faculty from the educational institutions of SVES have been participating in programmes organized at VEDIC. VEDIC has conducted more than 150 workshops for faculty, faculty leaders and non-teaching staff so far which were fully funded by the SVES and total faculty attendance counts at the faculty workshops is close to 1800 the total student attendance count at the student workshop is close to 6700 so far.

In the first year of functioning of the center, many of the faculty participated in several programs where they were introduced to the theories of learning and instructional design, thinking styles, cognitive load theory as well as alternate pedagogical approaches including activity-based learning, mind maps, use of Google classroom etc. The activities in the second year included several interventions. The paper below describes one of the faculty development programs called the Inspire-Impact-Introspect (III) programme initiated in the second year of functioning of this center. This includes mainly the workshops that were part of the III programme and the impact on the faculty participants. Current efforts at the centre are focused on the formation of faculty learning communities.

Overview of the Inspire-Impact-Introspect faculty development programme

Before describing the faculty development program, some details about the setting of the workshop are described below:

Participant Solicitation and Workshop Details:

In the second year, during the first level of the program, faculty participants were requested from the same department in groups of 40. For example, the first two workshops focused on faculty from the Computer Science and Engineering and Information Technology departments only. A total of 13 batches of level 1 and 3 batches of level 2 workshops have been completed so far. A few of the batches included faculty from multiple disciplines with the requirement that at least one group of 5 were from the same department.

Participant Demographics:
A typical workshop had 35 – 40 participants and included varied levels of faculty participants. Some batches had 10 faculty members with 1-5 years of industry experience and other batches had just 1 or 2 faculty members with some industry experience. Similarly, some batches had roughly 50% faculty with less than 5 years of teaching experience whereas some batches had almost all faculty with less than 5 years of teaching experience.

Location of the Workshop:

A blend of residential (at VEDIC) and on-site (at the institution) workshops were held. Residential workshops were away from the institutional campus and feedback from some participants indicated the benefit of focused attention in these residential workshops. The on-site workshop had obvious logistical and financial benefits and feedback from some working faculty parents with young children indicated their preference for the on-site workshops. Center B was a retreat-type residential facility with food, accommodation and recreation facilities (see website www.vedic.edu.in for more details). The institutional campuses typically had very few resident faculty participants and most participants commuted to the institutional campus for the 3-day workshops.

Disciplines Covered:

The level 1 workshops were offered to 15 batches of faculty from several disciplines of engineering and one batch from dental and pharmacy disciplines. This paper discusses only the results from the workshops for engineering faculty. The engineering disciplines covered included Computer Science and Engineering, Information Technology, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Civil Engineering, Biomedical Engineering, Chemical Engineering and Pharmaceutical Engineering.

Resource Persons:

VEDIC has in-house resource persons including the author and these resource persons acted as internal consultants who were able to personalize the training programs to fit the needs of the institutional participants in consultation with the leadership team. The author has eight years of teaching experience in an engineering educational institution and five years of experience in industry as a technical specialist both in the US and has been conducting faculty development workshops in India since 2013.

Timeline of Activities:

Below is a table describing the timeline of activities and the approach used in each activity along with the type of data available for each activity.
<table>
<thead>
<tr>
<th>Faculty Development Activity</th>
<th>Framework/ Approach</th>
<th>Type of Data/ Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-day Level 1 Workshop</td>
<td>Described in Table 2</td>
<td>Pre-Workshop Survey</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-Workshop Feedback Survey</td>
</tr>
<tr>
<td></td>
<td>Google Forms</td>
<td>Level 2 Readiness Survey</td>
</tr>
<tr>
<td>3-day Level 2 Workshop</td>
<td>Described in Table 3</td>
<td>Session Plans, Presentations, Reviews and Rubrics</td>
</tr>
<tr>
<td>Classroom Observations</td>
<td>Observations of classroom presentations and activities and feedback</td>
<td>Lessons from the field!</td>
</tr>
<tr>
<td>Faculty Teaching Colloquium</td>
<td>Request for submission of abstracts along with rubrics for presentation, Submission of abstracts followed by faculty presentations, Reviews based on rubrics</td>
<td>General observations on the presentation quality based on rubrics</td>
</tr>
<tr>
<td>Formation of Faculty Learning Communities</td>
<td>Discussion for the small multi-disciplinary faculty groups of 4 followed by semester-long schedule</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Table 1. Faculty Development Interventions in chronological order of implementation

The above activities were designed based on several learning models. Felder and Brent [3] was used as a major reference in developing this program. A brief description of some features of the program and why these features were chosen in the interventions is presented below.

1. Presentations of examples, followed by small group discussions to enable the groups to come up with discipline-specific examples
Presentation formats of workshops need to be simple activity-based to provide participants with the time and freedom to discuss among themselves. Using motivations and an interactive format of presentation helps in keeping the workshop alive for the participants.

2. Activity enactment by faculty among their colleagues

The best way to learn is learn by doing and so the faculty enact out the activity with their colleagues. This activity works well when there are a large number of faculty from the same discipline or related disciplines.

3. Multi-disciplinary Faculty Learning Communities (Teaching Squares)

This is based on the learning partnerships model - teaching squares [9]. Smaller groups of inter-disciplinary faculty have some unique advantages to meet and learn from each other with no reservations, because they belong to different departments.

4. Use of Rubrics and Review

Providing rubrics for review helps empower and encourage faculty to perform self-assessment and, in the process, become adept in their own time.

5. Selection process

The faculty were selected to the successive levels through a set of assessments and surveys and this served as a level of recognition among their peers.

A brief description of the workshops and the contents are described below.

The outcomes of the 3-day Level 1 workshop were that the faculty attending it would be able to:

1. Visualize their roles positively in the context of today’s ‘Gen Z’ students.
2. Observe and regulate their emotions to promote a conducive learning environment in their classes.
3. Implement effective teaching practices in their classroom considering the broad range of learning style preferences
4. Write clear course learning Outcomes and identify higher level Outcomes
5. Create a lecture plan with questions designed to attract the students’ attention
6. Design activities into their lecture plan to enable active student participation
7. Practice and implement best practices in collaborative learning in their classroom

About a month after the completion of the Level 1 workshop, the participants were asked to fill out an online survey (Level 2 Readiness Survey), submit a session plan on a difficult-to-teach topic as well as a video recording of their activity. These survey responses are reviewed based on rubrics and the faculty are selected to come a 3-day Level 2 workshop approximately two months after the Level 1 workshop.

The objectives of the 3-day Level 2 workshop were to enable the faculty to review each other’s work critically using rubrics. This also enabled the selection of reviewers and co-facilitators to assist the main facilitator in running the program. Based on the observations in the classroom (see Table 1 above), it was felt that a session on effective use of PowerPoint and interactive teaching would be useful for faculty. This was included as a session in the Level 2 workshop.

A faculty colloquium was held closely after the Level 2 workshop where faculty were invited to showcase their best practices in teaching and learning. In parallel, classroom observations of the faculty were scheduled by the program facilitators and the faculty were given constructive feedback on their teaching practices.

In order to facilitate meaningful exchange of deeper ideas related to teaching, the faculty groups of 4 representing 4 different disciplines/ institutions were constituted [9]. Eight such groups were formed from the Level 2 selected faculty and tasked to meet every week on a different theme of their choice related to teaching and learning and record their observations and focus their efforts on documentation and dissemination through the publication of an educational research paper at an international conference or journal of repute. While these groups had classroom observations as part of their agenda, there were a few other tasks that these groups focused on as well.

Contents of the Level 1 and Level 2 Workshops

The contents for the level 1 and level 2 workshops are listed in the tables below.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Category</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of the Teacher</td>
<td>Teaching Philosophy</td>
<td>Think-Pair-Share</td>
</tr>
<tr>
<td>First Day of Class</td>
<td>Teaching Practice</td>
<td>Role Play</td>
</tr>
<tr>
<td>Topic</td>
<td>Category</td>
<td>Activity</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Emotion Regulation and Self-management</td>
<td>Self-development</td>
<td>Questionnaire and Relaxation exercise</td>
</tr>
<tr>
<td>Learning misconceptions</td>
<td>Teaching Practice</td>
<td>Small Group Activity</td>
</tr>
<tr>
<td>Course Learning Outcomes</td>
<td>Teaching Practice</td>
<td>Individual Reflection followed by review</td>
</tr>
<tr>
<td>Bloom’s Taxonomy</td>
<td>Teaching Practice</td>
<td>Small Group Activity</td>
</tr>
<tr>
<td>Effective Teaching</td>
<td>Teaching Practice</td>
<td>--</td>
</tr>
<tr>
<td>Course Design - Syllabus</td>
<td>Course Planning</td>
<td>--</td>
</tr>
<tr>
<td>Course Design – Session Plans, Good Questions</td>
<td>Course Planning</td>
<td>Individual Reflection followed by review</td>
</tr>
<tr>
<td>Instructional Design Framework</td>
<td>Learning Theory</td>
<td>--</td>
</tr>
<tr>
<td>Active Learning Methods</td>
<td>Active Learning</td>
<td>Activity design in small groups</td>
</tr>
<tr>
<td>Active Learning Sessions</td>
<td>Active Learning</td>
<td>Enactment of activity in small groups</td>
</tr>
<tr>
<td>The 7 Norms of Collaboration</td>
<td>Collaboration &amp; Communication</td>
<td>--</td>
</tr>
<tr>
<td>Collaborative Learning</td>
<td>Collaboration &amp; Communication</td>
<td>--</td>
</tr>
<tr>
<td>Designing Lab Experiments</td>
<td>Teaching Practice</td>
<td>Small Group Activity</td>
</tr>
<tr>
<td>Outcome-Based Education</td>
<td>Course Planning</td>
<td></td>
</tr>
<tr>
<td>Learning Assessment and Feedback</td>
<td>Learning Assessment</td>
<td>Think-Pair-Share</td>
</tr>
<tr>
<td>Addressing Student Resistance</td>
<td>Active Learning</td>
<td>--</td>
</tr>
</tbody>
</table>

Table 2. Topics Covered in the Level 1 Workshop
Table 3. Topics Covered in the Level 2 Workshop

In this paper, the results from the Post-Workshop Feedback Survey from Level 1, Level 2 Readiness Survey and specific outcomes at the beginning of the Level 2 program will be discussed.

Program Outcomes and Their Attainment at an Intermediate Stage

The participants’ responses to the Level 2 Readiness survey were analyzed to obtain the attainment of the outcomes of the faculty development program. Table 4 below lists the faculty program outcomes and the assessment questions related to each outcome used for participant evaluation.
Table 4. Faculty Program Outcomes and Assessment Questions

Data on the attainment of the above seven outcomes were systematically collected for a total of 176 faculty who attended the 3-day Level 1 workshop. The participant responses were collected through Google Forms as a set of survey questions. During the evaluation, the participant identity was hidden from the evaluators through an assigned code. Based on an average cut-off score, 74 faculty (about 42%) were selected to the Level 2 workshop.

The rubrics for the attainment of outcomes among the participant faculty are listed in table 5 below. The rubrics were used to identify attainment criteria for each of the outcomes at Level 2 (L2O).

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Rubrics</th>
<th>Points for attainment/ Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2O1</td>
<td>One word/ unclear (2), &lt; 1 idea sounds practical (4), &gt; 2 practical ideas (8), Exceptional &amp; well thought through (10)</td>
<td>2/5</td>
</tr>
<tr>
<td>L2O2</td>
<td>If unclear (1-3), Connection is not clear (4 - 6), Demonstrates application of Learning Style Preferences (6- 10)</td>
<td>6/10</td>
</tr>
</tbody>
</table>
Table 5. Rubrics for Attainment of Outcomes from the Level 2 Readiness Survey and Threshold Scores for Meeting Attainment

For example, for the first outcome, the attainment was based on the criteria that if the faculty describe at least one practical idea to describe their strategies it was considered good. Therefore, a score of 4/10 was considered sufficient to meet this outcome.

The overall selection criteria for coming to the Level 2 workshop was fixed at 40% score arbitrarily in the full survey. This was a selection not based on meeting individual outcome attainment but an overall score.

Figure 1. Attainment Rate for Specific Learning Outcomes Among all Participants (n=176) and Among Level 2 Selected Participants (n=74)

The figure above shows the percentage of participants that met the outcomes based on the criteria and points listed in table 2.
For example, 63% of all the survey participants attained the first outcome i.e., were able to express clearly their strategies for effective teaching and 92% of the faculty selected to attend the Level 2 program attained the first outcome.

The major findings here are that:

1. More than half of the Level 1 workshop participants (63%) were able to articulate a few effective teaching strategies after the workshop. Among the participants selected to Level 2, 92% were able to meet the same outcome.

2. One of the lowest scoring outcomes was related to the use of learning style preferences. The low score on the use of learning style preferences indicates a lack of clarity on how to use the learning style preferences in their classroom. This was addressed through an exercise on this topic in the later offerings of the workshop that had the faculty review each others’ presentations.

3. The other low-scoring outcome was related to solving challenges that arise from implementation of teaching practices. This low score may indicate a lack of motivation/mind-set and strategies on the part of the participants to systematically approach the challenges. The educators’ need for good student evaluations was also one of the reasons for this. Perhaps, an incentive-based approach aimed at encouraging faculty to work through the challenges they face in the classroom and the need to carefully consider student evaluations by the leadership team are potential solutions to this issue.

4. Finally, all faculty selected to the Level 2 program were required to present evidence of classroom activities in the form of a short video or photos. So, at least one outcome had 100% attainment among the selected faculty.

Analysis of Pre-and Post-Survey Data

A sample of faculty response to the question ‘List the learning outcomes for the course you are teaching’ before and after the Level 1 workshop are listed below. This is related to the program outcome 4 in table 4 above.

<table>
<thead>
<tr>
<th>Pre-Workshop Survey Response</th>
<th>Post-Workshop Survey Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the end of the course, the student should be able to:</td>
<td></td>
</tr>
<tr>
<td>1. Construct simple mathematical proofs and verify them.</td>
<td>1. Construct simple mathematical proofs and possess the ability to verify them.</td>
</tr>
</tbody>
</table>
2. Understand logical arguments and logical constructs.

3. Understand the basic properties of integers such as divisibility, modular arithmetic, GCD, Least common Multiple and Prime

4. Apply the basic properties and operations related to sets, relations and functions

5. Formulate and solve graph problems

6. Understanding properties of different algebraic structures

7. Apply induction and other proof techniques towards solving recurrences and other problems in elementary algebra.

8. Apply mathematical induction and other proof techniques in solving recurrence relations

Table 6. Sample – Faculty Participant Response Pre- and Post- Level 1

The above example clearly shows the improvement in the quality of the course learning outcome after the workshop. The learning outcomes are clear, specific and measurable after the workshop. Of course, this is one of the samples that showed a clear improvement.

Summary of Results from Participants Feedback

While feedback surveys were conducted for all participants, a few salient results are presented here. A Likert scale response was used - 1 – poor, 2 – fair, 3 – good, 4 – very good, 5 – excellent) to get feedback on the participants meeting their learning outcomes for the level 1 workshop (see section on Faculty Development Programs above for the list of learning outcomes at Level 1- L1Os).
Table 7  Results from Participant Feedback immediately after the Level 1 Workshop – Part 1

Table 7 above describes the results from a participants’ feedback survey done after the workshop. The overall perception from the participants was positive as can be seen from the average scores on the attainment of outcomes of the workshop.

Apart from this, the survey also asked questions on (i) whether the faculty were confident about trying new things in class (Q1)(ii) whether the faculty are already doing activities in the class (Q2) and (iii) if they will try new activities in their classes when they return to their classrooms (Q3). A Likert scale response was used - Strongly Disagree – 1, Disagree – 2, Neutral – 3, Agree - 4, Strongly Agree – 5.

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>4.4</td>
<td>Yes</td>
</tr>
<tr>
<td>Median</td>
<td>5.0</td>
<td>No</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Count (n)</td>
<td>286</td>
<td>282</td>
</tr>
</tbody>
</table>

Table 8  Results from Participant Feedback immediately after the Level 1 Workshop – Part 2

The results from these questions are reported in Table 8 above. The average score for Q1 was 4.4 with a median of 5.0 indicating a high level of confidence among faculty about trying new things in class. Further, about 72% (202/ 282) of the faculty reported already doing activities in the classroom (prior to the workshop) while 87% (246/282) said they will try new activities in their classes.

However, it was surprising to note that roughly 6% of the faculty reported that they will not try new activities in the class. A deeper digging into the reasons listed in the survey through faculty interviews indicated the following:

1. A small percentage felt that it was still difficult to teach subjects involving numerical problems using activities. This was mysterious to the facilitator in the beginning but was later explained; the faculty took role play to be an activity and did not consider Think-Pair-Share as an activity. Subsequent workshops addressed this misconception and also emphasized the broad range of activities that can be selected by the faculty to execute in the classroom and the benefits of each one.
2. Another reason for the negative answer was very simple. The faculty were already doing activities in the classes and they were not going to try ‘new’ activities.

3. Of course, there was a small fraction that were simply resistant to the idea of doing any activities in the classroom as they felt the students will not respond positively.

Conclusions

Faculty training and development programs empower faculty in teaching and learning theories and effective practices that have a longer-term institutional impact through improved student learning.

1. Short-term interventions such as workshops can be augmented with longer-term assignments and follow-up programs that can increase the effectiveness of these strategies and improve the outcomes.
2. A faculty training program was designed with specific outcomes and rubrics were used and implemented to measure the attainment of the outcomes.
3. Between 63% and 16% of the Level 1 faculty workshop participants (n = 176) met the outcomes. The lowest outcome attainment was for the use of learning style preferences in their teaching approaches while the highest was in identifying strategies for effective teaching.
4. In order to encourage more faculty to take teaching seriously, a set of teaching performance criteria need to be developed and implemented. These criteria may be based on implementation of new approaches for teaching as well as student evaluations and student learning improvements.
5. Faculty sense of confidence in implementing new activities in the classroom was high after the workshop and there was a 15% increase in faculty expressing their willingness to try new approaches to teaching.
6. Some of the faculty participants have started writing education research papers for submission to conferences and journals and this increase is largely attributable to the initiatives at VEDIC.

Recommendations

While it is evident that such training programs could help future faculty, the following recommendations are made based on some lessons learned so far in the program:

1. Conducting the interventional workshops at a location other than the institution has a retreat-like feel to it and the participant engagement was increased probably due to the absence of other distractions. This was reported by faculty participant surveys of a few of the workshops. Therefore, where
possible, it is recommended that such initial workshops be initiated at a remote location other than the campus.

2. The low level of conversion from Level 1 to Level 2 indicates the need for more frequent involvement between the two levels and addressing individual faculty needs through the availability of Online Discussions. Later versions of the workshops included Google Classroom and the provision for online discussions.

3. Another improvement that can be made is in aligning the academic calendar for the programmes with the beginning of these workshops. This is the best approach to offer these programmes since the faculty have ample time to implement and experiment with the approaches discussed in the workshop.

4. A top 10 list of what the faculty can do was offered to the last batch as a means to focus on a few activities rather than try and do everything at once. This was a suggestion from one of the participants.

5. The program is ongoing and the results from the programme with examples of faculty activities will be shared in a future publication. The pre-workshop survey as well as detailed feedback from the post-workshop survey were not shown here in detail in order to limit the length of this paper.

References


