TEACHING LEARNING CENTRE, BITS PILANI, PILANI CAMPUS

Tāleem

A NEWSLETTER

SPRING 2017 ISSUE - II

If you meet Buddha on the road ...

Taleem is an opportunity for documenting and listening to the (after) thoughts of adult learners. If Nai Talim was crucial to the idea of India, your title may coincide in an institution founded by one who emerged from the shadow of that great soul. Kudos! Would Taleem go paperless for the sake of the trees and take to transparency of the new social media despite all its inherent perils? Listening to learners' voices in Taleem is delightful. Where there is space for the learner and the learned (for Eklavya and not for Drona alone) there may be a transition from pedagogy towards andragogy (from congregating children towards life-long learning) despite that provocative urban quote attributed to Zen Buddhism: If you meet Buddha on the road, kill him!

Hari Nair
Department of Humanities and Social Sciences, BITS Pilani, Pilani Campus

Teaching a foreign language

The classroom experience of teaching or learning a new foreign language like German to the students of science and engineering is an altogether different story than that of science subjects. Firstly, the German alphabets and vocabulary are taught by reading out each of them from the blackboard, which the students repeat. Unlike English, in German, the definite article for each noun in singular form is determined by its gender and also the plural of each noun follows a definite rule. Hence, each noun has to be learnt with the correct article and the plural form. Grammatical rules e.g. construction of sentences are explained with suitable examples. An active participation of each student in the class for learning the language is mandatory. Emphasis on correct pronunciation is ensured by making each student read-out the text loudly which comprise mainly chapters with conversations. The recitation test gives the students an opportunity to learn new vocabulary (outside the textbook) and it also tests their pronunciation. The skit test is a more complete evaluation of their knowledge of grammar and spoken language. For this test, a group of students write their own original script, which they have to enact as a short skit.

Srijata Dey
Department of Physics, BITS Pilani, Pilani Campus

Interview of Shamik Chakraborty (Department of Chemistry, BITS Pilani, Pilani campus) taken by S K Choudhury (In-charge TLC).

Q. What has motivated you to join teaching profession and also to join BITS, Pilani?
Quest for knowledge, job offer, job description, and brand value.

Q. How do you look at teaching today compared to the days when you were a student?
At present, students are having access to all study materials, various libraries, and also to online courses/videos.

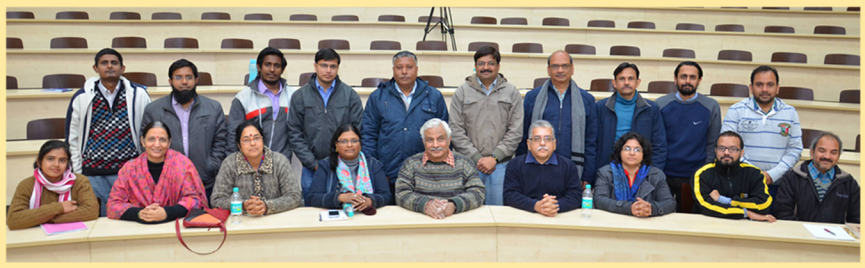
Q. What do you think you would need to do to establish yourself as an effective and respected teacher on the campus?
Primary condition is to provide an environment for effective learning. In addition,
1) Best ethical practices
2) Unbiased approach.
3) Respect students.

Q. What would you expect from the management, the peers and the students to facilitate you in your effective teaching?
Don't have much expectation from students as being a teacher I feel my sole responsibility is to guide them in all possible ways.
An open discussion forum needs to be developed to discuss about teaching-learning.

I just finished reading the first issue of Tāleem, and as a member of the student community I was surprised I wasn't aware of the various initiatives on campus mandated towards enhancing pedagogy. I just wanted to write to the team involved, thanking them for their efforts to put out this newsletter. Often, because of time constrains, it's not possible for interested students to attend open discussion sessions, but a newsletter gets the perspective across irrespective. A suggestion: maybe there could be a section on further reading(articles, empirical statistical reads etc) in future newsletters or as part of the email sent.

Swaraj Dalmia
5th year student of Mathematics

Taleem means 'education' in Urdu.



A Perspective on Teaching-Learning and Role of Technology

Education is all about learning through various means with a view to not only gain the desired knowledge and skills but also help evolve a broader perspective to what the life may have to offer in terms of challenges, opportunities and experiences.

Although there are several technology-assisted paradigms of learning, all of them have potential to misfire if we miss the centre of the learning: the learner and the facilitators of learning.

One common mistake, although rarely admitted by the people proposing and parties deploying technologies for enabling one or more forms of learning is that they often expect the human learners and facilitators to change their preferred natural ways and processes in order to suit the technology solution recommended or deployed by them.

The trick, therefore, lies in the ability of a technology based solution to be so designed that it requires nothing or next to nothing to be changed that happens in a normal ambient learning environment where people and processes do not have to be changed for accommodating the technology chosen.

Many of the technology-assisted solutions have been successful, in limited ways, in their own right and must be given their due credit for their individually or collectively helping in addressing issues like cost, scale, ease and access across work-profiles, qualifications, age-groups and continents.

While there is no denying the fact that no technology is perfect and not all situations need use of technology, at times, reseistance comes from even the technology-savvy students and for quite valid reasons! It turns out that it is, often, an issue that has more to do with the under-prepared, less motivated or disinterested instructors. For instance, some instructors completely discard board-work and solely depend upon borrowed or uninspiring slides.

Clearly, the way forward lies in adopting a balanced approach towards effective use of technology, as per need, inside and outside of the classrooms while not forgetting that technology is to be seen as means for aiding learning and not as an end unto itself, in the context of teaching-learning process.

Rahul Banerjee,
Professor-in-charge, TLC, BITS Pilani.

Events organized by TLC

- A two day National Workshop On "Outcome Based Learning Using Pedagogy Framework Model" in collaboration with the Centre for Educational Technology, Indian Institute of Technology (IIT), Kharagpur, under the MHRD government of India funded project "Developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning (Main Phase)" was organized at BITS Pilani during November 28-29, 2016. About 60 participants, including 25 participants from various campuses of BITS Pilani participated in the event. The workshop addressed topics related to Outcome Based Education, Outcome-based Curriculum Design, Software Assessment and Evaluation by prominent academics of IIT Kharagpur, Prof A. K. Ray, Dr Tamali Bhattacharyya, Dr S. Das Mandal. During this event, the first newsletter of the TLC, Pilani campus, *Tāleem* was launched by the dignitaries.

- A talk on "Bloom's Taxonomy" was delivered by Dr Vishal Gupta from the Department of Computer Science and a member of the Teaching Learning Centre (TLC), BITS Pilani, Pilani campus on January 5, 2017. To an audience of BITS faculty members, he explained the concepts with the help of examples from their everyday teaching experiences.

- A two day workshop on "Achieving High Quality in Education at the Tertiary Level" was conducted by Prof K. P. Mohanan and Mr Sriram Naganathan during January 9-10, 2017. The visiting speakers are distinguished members of the organization 'ThinQ' (http://www.schoolofthinq.com), which helps institutions (primary, secondary and tertiary) to set up courses in inquiry and integration. The workshop emphasized the role of critical thinking, rational inquiry, integration and transdisciplinarity in teaching-learning at the higher education level. The speakers demonstrated inquiry based pedagogy, by taking several examples of Mathematical and Scientific inquiry. They also pointed out the crucial importance of aligning the curriculum/syllabus to the evaluation process. The workshop was attended by about 25 faculty members.

- TLC, BITS Pilani, Pilani Campus, in collaboration with the Department of Humanities and Social Sciences organized a two-day workshop on Orienting Teaching towards Outcome Based Learning during 18-19 February, 2017. Major (General) S.S. Nair, AVSM (Retd.), Director, BET, Pilani delivered the keynote address in which he highlighted the need to improve the teaching-learning scenario in the country and emphasised localized solutions for different nations. 28 teachers from 14 schools of Pilani and nearby places, 4 research scholars and 31 students from 13 schools of Pilani participated in this workshop. Dr Paritosh Shukla (Department of Chemistry), Prof S.K.Choudhary (Department of Humanities and Social Sciences) and 4 Teach India Fellows conducted sessions on "Why Outcome Based Learning?" and "Teaching of English and Science with Outcome Based Learning".

- "Together at BITS" was jointly organized by TLC BITS Pilani, Pilani Campus, the Staff Association and The Students Union on 18-02-17 at the BITS auditorium. It was an evening of music and dance performances by faculty, their family members and BITS students. It was an attempt to bring the faculty and student community closer through their involvement in the event. Classical music and dance performances by Gurukul and Raagmalika and a special chorus medley performance by the Department of Biological Sciences were some of the show highlights.

Upcoming events

- **Open Forum Discussion in the form of a debate on 27 March, 2017**
- **Teaching Workshop for research scholars in the 4th week of March, 2017**
- **Workshop on Sample Course Handouts preparation in the 1st week of April, 2017**

Faculty responses to issues of absenteesim and zero percent attendance at BITS. Interviews were taken by the student editors of *Taleem*.

Arya Kumar, Department Of Economics and Finance
Absenteeism affects both students and teachers, and it is an interesting challenge for the faculty to maintain attendance in a system that does not enforce it. There are two issues that need to be addressed here. There are a few extraordinary students, whose progress would be slowed down by the imposition of minimum attendance, if teacher does not deliver a value proposition for him in the class. While there are other(s) who need to attend regularly but get trapped into wrong direction by their friend circle. There is no single right or wrong answer to the problem of absenteeism but for the institution to keep experimenting with alternate solutions that ultimately results in overall improvement in quality of teaching-learning process for all stake holders. Above all, it requires a greater maturity on the part of students to take a right call; irrespective of the system.

Navneet Gupta, Department Of Electrical and Electronics
Zero percent attendance policy is being misused by students as they feel that they can cope with the subject on their own, without attending classes. However, in doing so, they miss out important insights of the subject that the faculty bring with them. While it is the responsibility of the faculty to make the contents interesting and to retain the attention of the students, mandatory attendance might result in students developing an interest in the subject as they gain exposure that might not be possible by reading the textbook alone.

Rishikesh Vaidya, Department Of Physics
Zero percent attendance in BITS has its own merits and demerits. Education is meant to be an enabler towards a journey of self discovery and hence can blossom only in the company of freedom, choices, and freedom of choices. That is then the philosophy of zero percent attendance. Why debate then making a certain percentage mandatory? Because it is expected that students will exercise the freedom in their best interest and make the most out of their stay at BITS. Unfortunately that is not happening and in many cases students get into wrong habits. We must find ways and means to engage with students and explore the possibilities where we have best of both the worlds – neither compromise on freedom and yet have fuller classrooms. This is never going to be easy but we must work at it. Through compulsions we may bring students to classrooms but can we hold their minds captive?"

Rajdeep Chowdhury, Department Of Biological Sciences
It always hurts if students don't come to class. A teacher gives his best when he has a full class. At the end of the day, the students benefit if they come to the class. Having said that, it is also true that if a student does not get any additional benefit from coming to a class, he skips. However, at times we have seen people skipping classes from the very first day of semester, based on others' feedback or for other unknown reasons, and not giving an opportunity to the faculty to interact. This has to change.
According to me, there can be a CG/grade criteria fixed for attendance. If a student is not able to maintain a good academic record, or one whose academic performance is going down drastically, can be instructed to attend all his/her classes. This is not a way of forcing students but telling them that we care. The zero percent attendance policy is one of the better elements of the BITS tradition, let's not do away with it, but try to restrict from misusing it.

Banasri Roy, Department Of Chemical Engineering
Once the students are aware of their priorities, an imposition of attendance rules should not be necessary. In order to help students to sort their priorities, it is important to ensure that they know enough to make informed choices, which translates to the fact that a minimum attendance requirement might be introduced in the first, and maybe, in the second year.

Sainath Bitragunta, Department Of Electrical and Electronics
A zero percent attendance policy is good neither for the students nor the faculty. The policy leads to students missing out on what's really important and the faculty possibly losing motivation. The students judge the faculty too easily after only a couple of classes. Every faculty member in BITS worked hard to get to where they are and students need to understand that they are here to transfer their knowledge to them. A minimum attendance must be fixed at 70% before the mid-semester exams and 60% before the comprehensive exams as what is taught before is often the building blocks of the course. Exceptional students who can learn on their own exist, but compulsory attendance will help the average student to learn better. Compulsory attendance can be introduced for two semesters and the results monitored to help formulate a plan for the long term.

Anil Kumar, Department Of Chemistry
As a teacher, I am not okay with non-attendance because there is always a value attached when a student comes to the class. However, as per BITS educational policy, we allow students to miss classes if there is something more important going on than the class. If there is some activity which is rare or occasional, the student can go attend that and miss the class. We don't push or force the student, we give freedom to the students, and that freedom should be taken in such a way that he can have zero attendance in class. However, it should not become an off-campus program. Even when they are on campus, some students make it an off-campus program. I do not like that, I like it when students come and interact in the class. There will always be teachers who will inspire one or the other student in class. I see compulsory attendance policy as a debatable topic right now, but maybe going forward, the students will force us to implement this.

V S Nirban, Department Of Humanities and Social Sciences
Overall, I think absenteeism is growing in BITS and is not desirable. In traditional universities, there is a lower side cap on the percentage of attendance. In case of BITS we have a different system in which attendance is not compulsory. But that should not be treated in a literal sense. We also have a makeup policy where a student may be excused from an exam on genuine grounds and the exam may be conducted at a later date. But over the last few semesters and years, there has been an increasingly larger population of students who have been misusing these liberties. Attending classes is, by default, a requirement of acquiring knowledge. However, compulsory attendance will not serve the purpose. But is advisable to create awareness amongst students, about the concept of zero attendance and what is expected of them at BITS.

Biswanath Layek, Department Of Physics
It is not a serious issue that the students don't attend the class regularly. What one must ask is, what do they do when they skip a class. If the answer is "nothing", it is a concern and should be addressed professionally by the institute and emotionally by the parents. Such students might benefit from a compulsory attendance. Mandatory attendance at BITS would be a "going backward in time" policy (attempt to confine a student in a class room) in today's world and may hurt the learning process itself. It leaves the student with no time and energy to think independently or pursue his passion. There are many bright students who are irregular in the class but get admitted into top most universities later. They go on to make significant contributions in their fields. Where academics resources are available freely, it is not fair to expect students to be attentive during lectures. We should focus on quality teaching and ask why/how to engage students without making attendance compulsory.

Compulsory Attendance Policy in Higher Education

Many institutions of higher education have a policy of compulsory attendance. Those who do not meet the attendance requirements are penalized, either through monetary fines, or through a reduction in their grades. I would like to present three arguments against this policy.

Argument 1: Not Promoting Independent Learning

The core components of the primary function of an institution of higher learning are: (A) clearly specifying the desired learning outcomes of courses, majors, and programs, in terms of a syllabus; (B) ensuring opportunities for students to achieve these outcomes, in terms of pedagogical strategies (including learning materials, activities in and outside the classroom, and so on); (C) checking, through assessment, if the desired learning outcomes have been achieved; and if the learning is inadequate, providing further assistance or taking remedial measures; and (D) providing certification on their learning, in terms of degree certificates and transcripts, needed for employment or for further studies.

If students demonstrate, by doing well in the assessment, that they have learnt what the institution expects them to learn without attending classes, they have demonstrated their capacity for independent learning. If a student manages to get a B in assessment without attending lectures and tutorials (but participating in the assessment activities), their grades ought to be raised, say, from a B to a B+, as an acknowledgement of their independent learning, a highly valued attribute. The policy of penalty for those who fall short of the required attendance counters the value of independent learning.

Argument 2: Learning cannot be forced

The compulsory attendance scheme is coercive. Learning something becomes meaningful and long lasting when we want to learn it. Students might retain what they are forced to learn till they answer the final examinations, but it is unlikely to remain beyond that. If we want learning to last beyond exams, it does not make sense to impose a compulsory attendance policy. What we ought to do instead is to make what they have to learn attractive to them, in a way that they recognize its meaningfulness and value for their lives.

Argument 3: Learning Opportunities Outside the Classroom

The compulsory attendance policy makes at least two false assumptions:

- Learning takes place only in the classroom; students are incapable of learning outside.
- Students' forced presence in the classroom ensures their learning, and engagement of their minds.

Given the current state of modern technology, students have many opportunities to learn outside the classroom, going way beyond the traditional sources of printed materials. These include video lectures and online courses by some of the best in their respective fields. By way of illustration, here are two excellent courses available for all students who have reasonable mastery of English:

- Introduction to Classical Mechanics by MIT Professor Walter Lewin
https://www.youtube.com/watch?v=wWnfJ0-xXRE&list=PLyQSN7X0ro203puVhQsmCj9qhlFQ-As8e
- Introductory Biology by MIT Professor Graham Walker at
https://www.youtube.com/watch?v=lm8ywGl9AIQ

Anyone who teaches introductory physics or biology in India, and imposes compulsory attendance, should first ensure that they can do better than Walter Lewin and Graham Walker, or offer something unique and valuable that Lewin or Walker don't offer. If not, students may not be motivated to attend, and rightly so.

When I was at the National University of Singapore, I created an open source web course on Academic Knowledge and Inquiry (https://wiki.nus.edu.sg/display/aki/Home). I was also teaching the same material in a class-taught course. Midway through the course, I had to be away for three weeks, so for that duration, I asked students to learn from the web course. I told them that when I returned, I would give them a class test to assess their learning during the three weeks. I was pleased to find that they had learnt remarkably well. So I asked, "If you have to choose between the web version and the classroom version, which one would you choose?" They couldn't, of course, have both. They chose the web version, and gave me three reasons. One, it was more systematic and organized. Two, they could rewind if they wanted to, but they couldn't do that with the classroom version. Three, they could learn from the web version any time of day or week, not possible with the classroom version. Given such possibilities of learning from the internet, it makes no sense to insist on attendance.

Conclusion

The physical presence of a student in a classroom is neither necessary nor sufficient for learning to take place. What is important is the mental engagement with what needs to be learnt, which can happen both within and outside the classroom. If the faculty cannot provide that engagement through classroom interaction, and students decide to skip classes as a result, and yet do well in the course, there is no legitimacy for imposing compulsory attendance.

Professor K.P. Mohanan is an internationally acclaimed linguist and has taught at the University of Texas at Austin; MIT; Stanford University; and the National University of Singapore (NUS). He is currently a Visiting Professor in the Center for Integrative Studies at IISER-Pune.

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