



Centenary Celebrated Sharanabasaveshwar Vidya Vardhak Sangha's

Sharanabasaveshwar

College of Science Kalaburagi 585 103

(Diamond Jubilee Celebrated 1956-2016, ISO Certified 9001-2015)

Welcome to

"Five -Day Faculty Development Program"
On
"ART & SCIENCE OF TEACHING
LEARNING PROCESS"
(From 2nd July to 6th July, 2019)

Chief Guest :

Dr. Anilkumar Bidve

Registrar, Sharnbasva University, Kalaburagi

President :

Dr. S. G. Dollegoudar

Principal, Sharnbasaveshwar College of Science, Kalaburagi

Guest of Honor :

Dr. N. H. Deshpande

Dnyanapeeth Academy, Pune

Dr. S.T.Sulepetkar
IQAC Coordinator

Dr. Omprakesh S
Asst. NAAC Coordi

Dr. T. V. Biradar
Program Coordinator



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PRINCIPAL
SHARNBASVESHWAR COLLEGE
OF SCIENCE, KALABURGI

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Coordinator
IQAC

Dr. T. V. Biradar
Program Coordinator

Day-5(July 6, 2019)

10:00 AM "Recap of Day Three & Four"

10.15 AM – 11.30 AM Session Seventeen-
"Presentations by Teams"

11.30 AM – 11.45 AM Tea Break

11:45 AM – 1.15 PM Session Eighteen:
"Presentations by Teams (Contd.)"

1.15 PM – 2.00 PM Lunch Break

02:00 PM – 3.30 PM Session Nineteen:
"Path Forward and Open House"

3.30 – 3.45 PM – Tea Break

03:45 PM – 5.00 PM Session Twenty:
"Certification, Feedback"

05:00 PM - Valedictory Function



SHARNBASVESHWAR
COLLEGE OF SCIENCE, KALABURAGI
"FIVE-DAY FACULTY DEVELOPMENT
PROGRAM"
(Under IQAC)

On
"ART & SCIENCE OF TEACHING
- LEARNING PROCESS"
(From 2nd JULY to 6th JULY, 2019)

Chief Guest:

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Dr.S.T.Sulepetkar Dr.Omprakesh S Dr.T.V.Biradar
IQAC Coordinator Asst. NAAC Coordi Program Coordinator

Day-1 (July 2, 2019)

10:00 AM - Inauguration, Program Objectives, Introduction

10.15 AM- 11.30 Session One:

"Faculty-roles & responsibilities"

11.30 AM – 11.45 AM – Tea Break

11:45 AM - 1.15PM Session Two:

"Challenges of Education"

1.15 PM – 2.00 PM Lunch Break

02:00 PM – 3.30 PM Session Three:

"Learning Process, Student Counseling & Coaching"

3.30 PM – 3.45 PM – Tea Break

03:45 PM – 5.00 PM Session Four:

"Reflecting on current Classroom Practices"

Day- 2 (July 3, 2019)

10:00 AM – 11.30 AM Session Five:

"Teacher to Facilitator, Student to Learner - Role Shift"

11.30 AM – 11.45 PM – Tea Break

11:45 AM – 1.15 PM Session Six:

"Developing a new learning approach"

1.15 PM – 2.00 PM – Lunch Break

02:00 PM – 3.30 PM Session Seven:

"Communication in classroom and art of listening"

3.30 PM – 3.45 PM – Tea Break

03:45 PM - 5.00 PM Session Eight:

"Communication in classroom and art of listening"(Contd.)"

10:00 AM

"Recap of Day One &Two"

10.15 AM – 11.30 AM Session Nine:

"Presentation Skill"

11.30 PM – 11.45 – Tea Break

11:45 AM – 1.15 PM Session Ten:

"Preparing for sessions"

1.15 PM – 2.00 PM - Lunch Break

2.00PM – 3.30 PM Session Eleven:

"Use of A/V aids"

3.45PM – 5.00 PM Session Twelve:

"Facilitating Techniques & Method"

Day- 4 (July 5, 2019)

10:00 AM – 11.30 PM Session Thirteen:

"Facilitating Techniques & Methods(contd.)"

11.30 AM – 11.45 PM Tea Break

11:45 AM – 1.15 PM Session Fourteen:

"Classroom Management"

1.15 PM – 2.00 PM Lunch Break

02.00 PM - 3.30 PM Session Fifteen:

"Handling Q/A session"

3.30 – 3.45 PM Tea Break

03:45 PM- 5.00 PM Session Sixteen:

"Team activity"

"ART & SCIENCE OF TEACHING- LEARNING PROCESS"

FIVE-DAY FACULTY DEVELOPMENT PROGRAM

AT

SHARNBASVESHWAR COLLEGE OF SCIENCE, GULBARGA

(JULY 2-JULY 6, 2019)

SCHEDULE:

Day-1 (July 2, 2019)

10:00 AM- Inauguration, Program Objectives, Introduction

10.15 AM- Session One: **"Challenges of Education"**

11:45 AM- Session Two: **"Faculty- roles & responsibilities"**

02:00 PM- Session Three: **"Learning Process, Student Counseling & Coaching"**

03:45 PM- Session Four: **"Reflecting on current Classroom Practices"**

05:00 PM- End of Day One

Day- 2 (July 3, 2019)

10:00 AM - Session Five: Role Shift- **"Teacher to Facilitator, Student to Learner"**

11:45 AM - Session Six: **"Developing a new learning approach"**

02:00 PM- Session Seven: **"Communication in classroom and art of listening"**

03:45 PM - Session Eight: **"Communication in classroom and art of listening (Contd.)"**

05:00 PM - End of Day Two

Day-3 (July 4, 2019)

10:00 AM **"Recap of Day One & Two"**

10.15 AM- Session Nine: **"Preparing for sessions"**

11:45 AM - Session Ten: **"Use of A/V aids"**

02:00 PM - Session Eleven: **"Facilitating Techniques & Methods"**

03:45 PM - Session Twelve: **"Facilitating Techniques & Methods (contd.)"**

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05:00 PM- End of Day Three

Day- 4 (July 5, 2019)

10:00 AM- Session Thirteen: "Presentation skills"

11:45 AM- Session Fourteen: "Classroom Management"

02:00 PM- Session Fifteen: "Using Library Resources"

03:45 PM- Session Sixteen: "Team activity"

05:00 PM- End of Day Four

Day-5(July 6, 2019)

10:00 AM "Recap of Day Three & Four"

10.15 AM- Session Seventeen- "Presentations by Teams"

11:45 AM – Session Eighteen: "Presentations by Teams (Contd.)"

02:00 PM – Session Nineteen: "Path Forward and Open House"

03:45 PM – Session Twenty: "Certification, Feedback, Valedictory"

05:00 PM- End of Program

Tea Break – 11.30 AM- 11.45 AM

Lunch Break- 01.15 PM- 02.00 PM

Tea Break – 03.30 PM- 03.45 PM

Dr. N. H. DESHPANDE

Facilitator

Dr. N.H. Deshpande



| | |
|--------------------|--|
| Name | Nitin H. Deshpande |
| Birth Date | August 21, 1959 |
| Education | B. E. (Mech.) – 1981(Walchand College of Engineering, Sangli) M. E. (Prod.) – 1990(Walchand College of Engineering, Sangli) Dip. T. & D. – 1995(Indian Society for Training & Development, New Delhi) Ph. D. (HRD) - 2016 (Dr. D. Y. Patil Vidyapeeth, Pune) |
| Assignments | <ol style="list-style-type: none">1) M/s Bajaj Auto Ltd; Pune (August 1981-August 1984) as Assistant Engineer- Motor Cycle Division2) Institute of Technology and Engineering; Baramati (August 1984-December 1986) as Lecturer in Mechanical Engineering3) College of Engineering and Polytechnic; Islampur (December 1986- June 1993) as Assistant Professor and HOD- Automobile Engineering.4) M/s KSB Pumps Ltd; Pune (June 1993- July 1998) as Senior Manager- HR5) M/s Ceat Ltd; Mumbai (November 1998-October 2002) as Manager- TQM & Training, Corporate MR6) M/s Garware-Wall Ropes Ltd; Pune (October 2002-May 2004) as Head-HR7) Indian Centre for International Business; Pune (June 2004- May 2005) as Director8) Full-Time Consultant; Pune (June 2005-April 2007)9) Disha Education Society; Raipur (May 2007- September 2009) as Vice-President (Faculty of Management)10) Kriti Institute of Technology and Engineering, Raipur (March 2010- December 2010) as Chief Academic Advisor11) Disha Education Society, Raipur (March 2011- November 2011) as Director- FOM & III |

- 12) Full -Time Consultant; Pune (December 2011 onwards including working as Senior Head- HR in Symbiosis Centre for Distance Learning, Pune)
- 13) Adjunct Professor, Government College of Engineering, Karad (October 5, 2015 onwards)

Expertise

Human Resource Development (HRD), Quality Management Systems (ISO; TS), Total Quality Management (TQM)

Professional Brief

- 1) Certified Lead- Assessor for ISO: 9000 QMS
- 2) Certified Assessor for Quality Awards (RPG)
- 3) Completed Foundation Course on "Transactional Analysis"
- 4) Attended course by Mission 10X and certified as Resource Person (Master Trainer)
- 5) As a consultant, instrumental for ISO certification consultancy, TQM Consultancy for small and medium scale organizations.
- 6) Worked as Resource Person for TTTI, Bhopal for various Faculty Development Modules for Engineering and Polytechnic Faculty Members.
- 7) Completed program on "Rational Emotive Behavior Theory " (REBT)

Extra- Curricular

- 1) Authored four books in Marathi
- 2) Written, Presented and Published a no. of papers at State/National level symposia/seminars
- 3) Worked as visiting faculty member in Management Education Institutions
- 4) Participated in various state level elocution/one-act plays/debate competitions
- 5) Written no. of articles in newspapers/magazines

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Dr. N. H. DESHPANDE

DNYANAPEETH ACADEMY

Who we are?

Like-minded associates working professionally as Total Business Solution Providers committed to find solutions for our clients.

What we offer?

Solutions in

- HRD (Human Resource Development)
 - QMS (Quality Management Systems)
 - TQM (Total Quality Management)
 - SCM (Supply Chain Management)
 - GMP (Good Manufacturing Practices)
 - Maintenance
 - Mind, Body, Soul Management
 - Understanding and interpreting behaviour and assessments
- ALL UNDER ONE ROOF!

How we work?

We work in close association with our customers, after knowing their exact requirements through our diagnostics. We offer assistance with integrity, honesty, and commitment in everything we do for them and with them. We respond promptly and should there be need arising, we are available on phone/e-mail. Our service is customer specific and designed to add value to customer business. We believe in meeting deadlines we set together with our customers. We believe in frequent communication with our customers, making recommendations to help them build a better business thus building a win-win situation.

The academy is devoted to Management Education, Employee development initiatives, feasibility studies, institutionalization of various initiatives/systems in organizations/educational set-ups and dissemination of management philosophy and practices. We also undertake projects and operate in the field of Human Resource Management through training and development programmes at all the levels of the organization. We are comfortable in communicating in English/Hindi/Marathi fluently helping us to build rapport with our customers. The consultants have been involved in this activity for more than six years and have conducted programmes in various industrial sectors such as Engineering, Automotives, Cement, Plastics, Education and others.

The programmes conducted have been directed towards the senior management, supervisory staff and also the employees at operating level including trade union leaders.

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The programmes have been conducted for various small, medium and large-scale private sector companies as well as academic institutions in higher technical education domain. They have been exceedingly successful and the participants have greatly appreciated the style, methodology and contents. For conducting various training programmes, the consultants have prepared reading material in all the three languages for the benefit of participants for reference during and after the sessions.

Our Unique Programme Modules

- Customer care
- Workshop for trade union leaders
- Presentation skills and communication systems for organizational effectiveness
- Human side of enterprise
- Interpersonal skills
- Managerial excellence
- Supervisory effectiveness
- Business excellence models and organizational assessment
- Quality Management Systems
- Train the Trainers

Our Strength

Highly qualified and experienced associates from all facets of Academic and Corporate environment specialized in HRD/ISO/TQM/SCM. All have expertise and proven track record of performance and results.

Partial list of our valued clients

- M/s Raymond Cement (Lafarge Cement), Bilaspur
- M/s Sharada Inventions, Nashik
- M/s Shamala Electroplaters, Nashik
- M/s Ashapura Group of Industries, Mumbai and Bhuj
- M/s Sanva Auto Components Pvt. Ltd; Baramati
- M/s Ni-Plast Ltd; Kolhapur
- M/s NAB- IDBI Polytechnic; Ambarnath
- M/s Acuprint Systems; Panvel
- M/s College of Engineering, Kopergaon
- M/s MICO, Nashik
- M/s Godrej & Boyce, Mumbai
- M/s NAB (I), Mumbai
- M/s Alkyl Amines Chemicals Ltd; Mumbai

- M/s LG Electronics, Ranjangaon
- M/s NTPC, Zharkhand

-
- M/s Regional Training Center, Pune
 - M/s World Institute of Sustainable Energy, Pune
 - S.S.Gadge Baba College of Engineering & Technology, Bhusawal
 - K.C.E. Society's College of Engineering & Information Technology, Jalgaon
 - R.C. Patel Institute of Technology, Shirpur
 - R.P.G. Cables, Thane
 - Pearl Engineering Polymers Limited, Kurkumbh
 - Kinetic Engineering Limited, Pune
 - Sakal Group of Publications, Mumbai & Pune
 - Mahindra Sona Limited, Nashik
 - Institute of Management & Research, Nashik
 - M. Sc. (Electronics) Department of Shivaji University, Kolhapur
 - Transpek- Silox India, Limited, Baroda
 - M/s Teryair Equipment Pvt. Ltd; Mumbai
 - M/s Alpha Pneumatics Pvt. Ltd; Vasai
 - Sainik Sahakari Bank; Satara
-

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SHARANBASAVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Department of Mathematics

PREAMBLE :

It is strongly felt by the top management of any educational institute, that the efforts to enhance faculty competence by way of regular and continuous updation are constantly needed.

A large no. of new faculty members these days joins every year due to expansion of institute's activities as well as replacement .Amongst the newly joined faculty members ,many are fresh pass outs ,who have no formal background of education field .**Unless faculty develops, They cannot develops students in true sense.**

The Institute felt it necessary to equip faculty members with basic T-L process and impart them techniques of making class room / lab sessions both interesting and stimulating. On this backdrop,

Institute approached Dnyanapeeth Academy ,Pune and this proposal has been prepared based on telephonic conversation with prof.Shivaray Sulepethkar IQAC co-ordinator.

Programme Objectives:

1. Appreciate current Scenario in education process and focus on areas of improvements.
2. Understanding basic concepts of teaching Learning Process .
3. Appreciate importance of session planning ,Course preparation
4. Learn to create interest in Class room sessions and enhance involvement of students .

Participants:

Identified Participants working in different departments from different areas

Methodology:

The programme will have combination of illustrative presentations, group assignments ,home work ,case lets and role plays

Venue: Institute premises.

On July 2nd 2019 at 10.00 am the inauguration was held on seminar hall and inauguration was followed by Chief guest Dr.Anilkumar Bidave Registrar, Sharnbasava university ,Kalaburagi . and the guest of honor Dr.D.H.Deshpande,Dnyanapeeth Academy ,Pune and the president Dr.S.G.Dollegoudar . the anchoring was done by miss.Mahalaxmi.H.B. Well come speech

carried out Dr.T.V.Biradar HOD of mathematics . Programme objectives and introduction was done by the chief guest and Presidential remarks done by the principal.

At 10.30 am the session one started and the following points are discussed

The main topic of the session was Faculty roles and Responsibilities:

The roles and responsibilities of college and university faculty members are closely tied to the central functions of higher education. One primary formal description of these functions was contained in the 1915 "Declaration of Principles" formulated by a representative committee of faculty members including members of the American Association of University Professors (AAUP). According to the Declaration, the functions of colleges and universities are "to promote inquiry and advance the sum of human knowledge, to provide general instruction to the students, and to develop experts for various branches of the public service" (Joughin, pp. 163–164). Correspondingly, college and university faculty members undertake research, teaching, and service roles to carry out the academic work of their respective institutions. Each of these roles enables faculty members to generate and disseminate knowledge to peers, students, and external audiences. The balance among teaching, research, and service, however, differs widely across institution types and by terms of the faculty member's appointment. The major portion of this article will deal with these kinds of differences while latter sections will focus on the faculty as collective entities and related trends within higher education.

Teaching Role:The teaching role of faculty members reflects their centrality in addressing the primary educational mission among colleges and universities. As faculty members teach, they disseminate and impart basic or applied knowledge to students and assist students with the learning process and applying the knowledge. In this construction of the teaching role, the teacher is the content expert, and students are regarded as learners or novices to the academic discipline or field of study. Faculty members are expected to follow developments in the field so their expertise and knowledge base remain current. At many universities, faculty members are also expected to participate in creating the new developments that are taught, which sometimes leads to tensions about appropriate priorities for research and teaching roles.

Integration of Faculty Roles and Responsibilities:

The teaching, research, and service roles of faculty members overlap conceptually and practically. For example, instruction in a particular discipline or skill yields a service in the form of educated or appropriately trained persons, and outreach to a farmer or small business owner may lead to an applied research project undertaken by the faculty member. Some attempts have been made to validate the various forms of faculty work and unify them conceptually. Perhaps

the most famous recent model has been the American educator and government official Ernest Boyer's 1990 stipulation of discovery, application, integration, and teaching as separate but related forms of scholarship. Among other outcomes, these models address concerns regarding the implicit hierarchy that grants the most prestige to research and the least to service.

Variable career emphasis programs can also help to integrate these faculty roles by offering opportunities for faculty members to stipulate their role emphases at various points in their work lives. Institutions with such programs acknowledge changes and evolutions in faculty members' professional interests and commitments. In some cases negotiations about role emphasis are part of a developmental post-tenure review program. Posttenure reviews are considered to be responsive to concerns about faculty members' continued vitality and contributions in their later years, particularly since the abolishment of most mandatory retirement age provisions. However, concerns remain about the potential for post-tenure review and variable role emphasis negotiations to be used for punitive rather than developmental purposes.

Second Session deals with Challenges of education: The major challenges faced by the Indian education system are:

- **Lack of basic reading and arithmetic skills** among the students in Indian Schools (as per Annual States of Education Report(ASER)2018)
- ASER report suggests that India is creating **another generation that can hardly read and write**. The only difference is that these children have spent some years of their lives in schools.
- **Infrastructure deficit**- Lack of electricity, single-room schools, lack of drinking water facilities, unavailability of toilets, poor hygiene etc.
- **Quality of teachers**- Lack of skilled, trained teachers is another problem faced by our education system. Besides this, teacher are also burdened with non academic workload which diverges their focus. A study by the National Institute of Education Planning and Administration (NIEPA) revealed that teachers spend only around 19 percent of their time teaching while the rest is spent mostly on non-teaching administrative work.
- **Poor salary**- In most of the cases ,teachers are paid poorly which ultimately affects their interests. Thus they are forced to opt for other alternatives to earn money such as tutions. Thus the quality of school education drops and the students are forced to spend additional money to avail tution facilities.
- **School closure**- Many schools are closed to low student strength, lack of teachers and infrastructure. The competition posed by private schools is also a major challenge to government schools.
- **High- drop out rates**- This is also a serious challenge, especially in case of girls. This is due to various factors such as poverty, patriarchal mindset, lack of toilets in schools, distance to schools and cultural elements.
- **Poor governance and lack of accountability**- Absence of teachers during school hours is another problem. School management committees are hardly functional. Also, parents are unaware of their rights and does not know whom to approach in such situations.
- **Corruption and leakages of funds**- Most of the fund which is allotted for the development of schools gets consumed by corrupt intermediaries. The fund transferred

from central govt to state govt to schools involves many intermediaries. True beneficiary is able to get only a certain part of the fund

**Session three : In this session the resource person discussed about Learning process
Student Counseling and coaching :**

Teaching is perhaps the most well-known way to help others to students.

A teacher generally starts from a position of 'expert', able to impart knowledge to their pupils. However, many teachers would recognize the importance of facilitating learning, which is more traditionally related to coaching.

Whether you are a professor, instructor, or graduate student, many students will look up to you. At times, you may find yourself in the position of counseling a student about matters beyond the scope of your official academic relationship. For some teachers, this is an uncomfortable role, with murkier boundaries than intellectual mentorship. For all teachers, it is a challenging balance between respecting the limits of your position and wanting to offer as much support to a student as possible. The following suggestions are offered as guidelines for effective counseling.

COUNSELING STRATEGIES

Know Your Limits

Although you are not expected to act as an amateur psychologist, you can function as a concerned and understanding support person. In cases where you are uncertain about your ability to help a student, however, it is best to be honest about this. Trust your intuition when you think an individual's problem is more than you can handle and the assistance of a professional is warranted. You can consult Counseling and Psychological Services (CAPS) for advice or help in your efforts to assist a student. Call CAPS at 723-3785.

Clarify Your Role

When you assume or are placed in the counseling role, role conflicts are possible. Some students will see you as an authority figure, which may make it difficult for them to be totally straightforward. It may also give your advice or opinion added "baggage," if a student thinks it will influence his or her outcome in your course. Other students will see you as a friend, complicating things when you need to evaluate their performance in your class. If you feel role confusion or conflict, address it clearly by letting your student know how you see your role.

Listen

Productive listening is a skill acquired with practice. When a student shares a problem or questions, refrain from immediately imposing your opinion. Withhold advice unless it is requested; concentrate instead on understanding the feelings and thoughts of your student (rather than your own). Allow the student enough time and latitude to express their thoughts

and feelings as fully as possible. See Effective Listening and this diagram of effective and ineffective listening behaviors.

Help Clarify Concerns

Sometimes students simply need the opportunity to figure out what is bothering them without being directly advised. You can help a student clarify their concerns by "mirroring" the feelings and thoughts you hear expressed and by helping them define the area of concern as precisely as possible. Once both you and the student understand the nature of the problem, you may then want to provide honest and considerate feedback, if it is desired.

Offer Support

Offer support by directly expressing concern, understanding, and empathy, and conveying an attitude of personal acceptance and regard for the student. Support does not mean you have to endorse every action, thought, or feeling that a student shares with you; it simply shows that you care about their well-being.

Suggest Alternatives for Action

Students will often generate the best plans of action themselves, but you can help a student assess and use both personal resources and outside support for solving problems. If requested, you can also suggest alternatives. Try to do so, however, only after the person in need has exhausted his or her ability to generate ideas. However, if the problem is merely a need for information, provide it or point the student to someone who can.

Follow Up Your Efforts

If a student has made a decision or approached a conflict with your help, politely and nonintrusive check back a few days or weeks later to get feedback on what has happened. Such information can be rewarding if your help has been useful, and corrective if it has not.

Session Four deals with Reflecting on current Classroom Practices:

1) When teachers are so new, will they actually have enough time to know how the program works?

When new teachers are introduced to a new program, are teachers given enough time to learn about the program on how it is conducted, how it is assessed, how is the curriculum like, the teaching and learning process like and many more. Some teachers are expected to start facilitating and teach student immediately as they joined. Teachers maybe have been given briefing and materials such as syllabus and curriculum to read to understand. However, are these information sufficient for teachers to facilitate students? Most probably the teacher would focus more on module they are taking up for that semester. Having said that, this does not ensure the new teacher is well verse of the curriculum. It is important for teachers to know overall about the program itself to understand how whole program works. Then, it may give teachers a

different view. Thus, by knowing full details of the program teacher may be able to understand what student have done, where students are leading and such.

2) Every teacher may have different background/different expectation and understanding about what students to do.

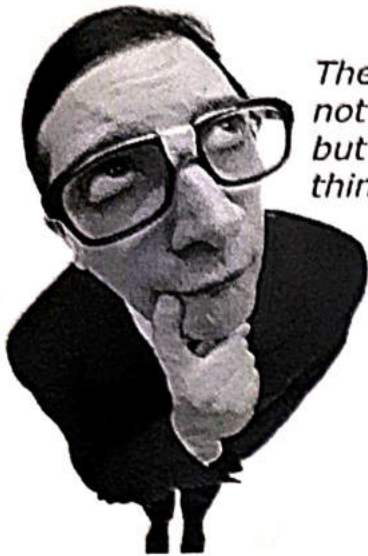
This can happen when instruction comes from one party and the work is examined by the another party. Sometimes, when teachers are not given enough time to understand the program, teachers might end up working with students based on what they understand about the module which may not be the same as what is the intended purpose of the module.

3) We as students can be left confused on every semester trying to figure out what and how my new lecturer/mentor wants us to write.

Teachers do have a certain amount of influence and power in determining students performance based on assessment, observations and etc. As students, we often have new/different teachers for new semester, new module, new subject and etc. Different teacher has different way of teaching which we cant avoid. However, as students wanting to achieve good grades, students takes a step ahead to figure out and understand the teachers style and expectation to be able to produce works and perform to obtain good grades. Teachers may have a guideline to assess student's work, but how teacher views students work is very subjective. Teachers' view can differ on what is more important, what they think is important, how students should write and etc. For example, for some teachers writing structure may not be more important but the content are more important. Whereas, for some teachers grammar punctuation is significance. Now, this relates to the validity of the assessment. So, is this student-centered or teacher-centered? As when student started to change writing style as per teacher's style this seems more like teacher centered. Having said that, if teachers requirement are based on intended purpose then the teacher is not to be blame.

Developing a new learning approach:

Critical thinking...



The quality of a question is not judged by its complexity but by the complexity of thinking it provokes.

Joseph O'Connor

Throughout this program I was continuously exposed to this term called critical thinking. How it benefits students by preparing our students to deal and face the ever changing world. I have read on many ways on how this can be implemented in teaching and learning process. However, not being a teacher, I did not have a chance to exercise or experience a lesson.

Dr. Lim always throws questions during lecture. He does not give or transfer knowledge but he makes me think in his lectures. I believe this is one of the methods of teaching and learning that develops critical thinking in students because the questions he asked would eventually lead me to find more about it which is a very significant difference in his lecture compared to others. Questioning is one of the art of critical thinking. It creates an environment where intellectual curiosity is fostered and questions are encouraged.

DAY – 2

Session 5: Teacher to facilitator, student to learner – Role Shift

When students ask questions and find the answers for themselves, they get involved in their own learning. Educational Dividends knows how powerful that can be for the student and the teacher. Educational Dividends also knows that creating a facilitative learning environment brings challenges for teachers.

First, teachers must adapt to a new way of teaching by managing more open ended discovery by students. This means shifting roles from a lecturer to a facilitator who provides resources, monitors progress and encourages students to problem solve. Teachers reap benefits when they see how excited their students are about applying their knowledge to solve a problem.

Second, facilitative learning requires that students do the work. However, many students, especially those who prefer to know "how to get an A," are uncomfortable with the open-ended design of facilitative learning. They are not familiar with projects that require them to apply their knowledge and problem solve. So, at first, students can get frustrated. Teachers must teach students to manage their own learning. The result will be students who are more creative and able to apply their learning to life's challenges. An added benefit is that teachers find once the shift to facilitative learning is implemented, students are more motivated in the classroom resulting in fewer discipline problems.

Third, facilitative learning requires students to apply their knowledge across subjects and that requires teachers in different disciplines to work together. Teachers feel comfortable managing their own classrooms but sometimes may not be used to working with their peers. Teachers must use facilitation skills to find positive ways of working on a single project with teachers in other disciplines. As a result, teachers find that working with their peers offers them more resources and ideas to share with students in their classrooms.

Session Six:

Developing a new learning approach:

Over the years many theories have been developed to examine the processes involved in learning. Most learning theories concentrate on the significance for the way that learning is delivered.

There are many different ways of learning both formally and informally: as part of a group, such as in a classroom setting, one-to-one, such as in a mentoring or coaching arrangement, and self-learning.

Session Seven:

Communication in classroom and art of listening: Listening is the ability to accurately receive and interpret messages in the communication process.

Listening is key to all effective communication. Without the ability to listen effectively, messages are easily misunderstood. As a result, communication breaks down and the sender of the message can easily become frustrated or irritated.

If there is one communication skill you should aim to master, then listening is it.

Listening is so important that many top employers provide listening skills training for their employees. This is not surprising when you consider that good listening skills can lead to better customer satisfaction, greater productivity with fewer mistakes, and increased sharing of information that in turn can lead to more creative and innovative work.

Many successful leaders and entrepreneurs credit their success to effective listening skills. Richard Branson frequently quotes listening as one of the main factors behind the success of Virgin.

Effective listening is a skill that underpins all positive human relationships.

Spend some time thinking about and developing your listening skills – they are the building blocks of success.

See our pages: Employability Skills and Customer Service Skills for more examples of the importance of listening in the workplace.

Good listening skills also have benefits in our personal lives, including:

A greater number of friends and social networks, improved self-esteem and confidence, higher grades at school and in academic work, and even better health and general well-being.

Studies have shown that, whereas speaking raises blood pressure, attentive listening can bring it down.

Listening is Not the Same as Hearing

Hearing refers to the sounds that enter your ears. It is a physical process that, provided you do not have any hearing problems, happens automatically.

Listening, however, requires more than that: it requires focus and concentrated effort, both mental and sometimes physical as well.

Listening means paying attention not only to the story, but how it is told, the use of language and voice, and how the other person uses his or her body. In other words, it means being aware of both verbal and non-verbal messages. Your ability to listen effectively depends on the degree to which you perceive and understand these messages.

Listening is not a passive process. In fact, the listener can, and should, be at least as engaged in the process as the speaker. The phrase '*active listening*' is used to describe this process of being fully involved.

Session Nine:

Presentation Skill : Presenting information clearly and effectively is a key skill in getting your message across. Today, presentation skills are required in almost every field, and most of us are

required to give presentations on occasions. While some people take this in their stride, others find it much more challenging.

It is, however, possible to improve your presentation skills with a bit of work. This section of SkillsYouNeed is designed to help.

Many people feel terrified when asked to talk in public, especially to bigger groups. However, these fears can be reduced by good preparation, which will also lay the groundwork for making an effective presentation.

These can all be considered presentations.

They do not, however, all require the same approach. You would not, for example, use PowerPoint to thank a colleague who was leaving. It would be unusual (though it has been done) to use it in a speech at a wedding. However, a conference audience would be somewhat surprised NOT to see slides projected onto a screen.

It follows, therefore, that there is no single set of rules that apply to all presentations. There are, however, some things that every presentation opportunity has in common. These include:

You will present better if you have prepared effectively. This does NOT necessarily mean that you have written out your speech verbatim and rehearsed it until you know it off by heart—although that might work for some people. It does, however, mean that you have to be confident that you are saying the right thing, in the right way, to the right people.

You need to be clear about your audience and your message. Every presentation will be better if you have clearly considered the message that you want or need to convey, and how best to convey it to your audience. These two pieces of information drive your style, structure, content, and use of visual aids.

☐ **You must never overrun your allocated time.** In other words, don't outstay your welcome. Almost every speech or presentation is better if it is shorter. Nobody minds going for coffee early or finishing before they expected to do so. Everybody minds being held up.

☐ **Generally speaking, your audience starts on your side.** As a rule, your audience is there (more or less) voluntarily. They have chosen to listen to you, and they want to enjoy your presentation. The occasion is yours to lose. **When you present, you are in charge of the room.** The audience has effectively handed you control and is sitting back waiting for you to do something. You may have prepared a specific talk, but if you see that isn't working, you can always change it. You are, after all, the expert.

You can, for example:

- Skip through some slides to a section that they may find more interesting;
- Ask your audience whether there is particular information that they were expecting that you are not providing;

- Suggest that everyone looks a bit sleepy, and maybe it would be better to start questions early, or have a discussion; or
 - Ask the audience at the start of the presentation what they are expecting and what they want you to cover. That way, you can tailor the presentation to fit their expectations.
- Just as when you are facilitating, you want to help your audience get the most out of your presentation. The best way to do that is to accept feedback—which may include smiles, nods of interest, or people getting their phones out.

Session Eleven:

Use of A/V aids : Audio Visual Aids are also called instructional material. Audio literally means “hearing” and “visual” means that which is found by seeing. So all such aids, which endeavor to make the knowledge clear to us through our sense are called **“Audio Visual Aids” or Instructional Material**. All these learning material make the learning situations as real as possible and give us firsthand knowledge through the organs of hearing and seeing. Therefore, any device which can be used to make the learning experience more concrete and effective, more realistic and dynamic can be considered audio visual material.

We learn through our sense organs. Senses are the ways of knowledge. All the sense organs help us in understanding the environment. Most of the knowledge, which we acquire from the school, comes through our ears and eyes

Session Twelve & thirteen:

Facilitating techniques and methods :

1. Action planning

Action planning is vital for team success. It is a simple and effective technique for gaining commitment for action. It works by carefully recording each action item, as follows:

- ‘What’ the action point is
- ‘When’ the action is to be scheduled and the estimated completion date
- ‘Who’ is assigned against the action
- Progress against the action (leave blank initially)

To save time, it is often best to leave the assignment of action points to the end of the meeting/event. In summary, here are a few key rules for the effective use of action planning:

- Do not nominate an individual for an action, unless he or she agrees to take it on
- Describe actions in precise, clearly understood terminology and with an agreed deadline for completion
- The team must agree that each action is worth doing
- Progress must be tracked and reported on at each meeting or agreed interval

In addition, some organisations use a visual method of tracking progress against their action plans. Typically, these use a ‘red’, ‘amber’ and ‘green’, traffic light analogy. In this context,

'red' means the action point has not yet started, 'amber' means it is in progress and 'green' means it has been fully completed.

2. Brainstorming

Brainstorming is an ideal tool for generating a large quantity of ideas within the group. However, for effective brainstorming sessions:

- Ideas should flow freely
- Aim for quantity, not quality of ideas
- Record every idea clearly
- Do not criticise or evaluate ideas in the session
- Consider an independent facilitator to the group
- In addition, the facilitator should also encourage the team to come up with several 'off the wall' or 'wacky' ideas. These can often stimulate the ideal solution.

3. Energisers

Energisers are ideal to raise personal energy levels within the group. Use these, where necessary, at appropriate intervals throughout the day, to re-vitalise the group. You can build up your repertoire of energisers by reviewing training manuals, sharing ideas with colleagues and thinking up your own.

- The key principles of using energisers are:
 - They should be fun and uplifting
 - Make them short e.g. five minutes
 - Conduct them with sufficient space
 - To be mindful of any potential health and safety hazards e.g. no chairs or equipment in the way
 - They are not physically too demanding and that everyone in the group will be able to participate

4. Flip-chart

Using a flip-chart during a team meeting can provide a creative, yet structured, working environment and bring focus to the group. Here are a few tips for effective flip-chart use:

- Place the flip-chart at the front of the group
- Ensure you have plenty of flip-chart paper to hand
- Stand to the side of the flip-chart to ensure everyone can see
- Whilst standing to one side, practice writing on flip-chart. If you are right handed you may find standing to the left (facing the flip-chart) of the flip-chart easier
- Write headings, where appropriate, onto the flip-chart to focus the group on the issue or question

Use clear, bold, large font – ('capitals only' helps some facilitators), to ensure the participants can read easily

Utilise different colours and bullet points when writing on the flip-chart. However, remember that 'red' and 'green' are not helpful for group members who are colour blind.

5. Go wild:

The 'Go Wild' facilitation method involves writing down 20 ideas beginning with the phrase 'wouldn't it be good if...'

As a result, the group is encouraged to come up with better and more imaginative solutions. To begin with, the statements might be obvious and predictable, but will become increasingly creative and 'wild' as you go

6. Ground rules

First, the facilitator or meeting leader should get the group to establish some 'ground rules' or a 'team code' for group working. Do this at an early stage of the group coming together.

In addition, key principles for setting these ground rules are that they:

- Establish an acceptable code of behaviour
- Provide a frame of reference for group members to challenge constructively
- Help the group gain agreement of what is important
- Are specific enough to be practical
- Do not stifle the groups' creativity
- Remain within the team

So how do you go about setting these group working rules? We suggest:

- Getting the group and recording feedback on the flip-chart
- Asking each individual in the group to summarise their own thoughts on post-it notes, then place them on the board
- If time is short, or it's a single day event, we suggest having some visuals with key words on that represent 'ground rules' or an appropriate 'team code of behaviour' for the day

7. Group review

Getting the group to review what they have learnt and gained out of the meeting will help facilitate higher performance. This only takes five to ten minutes. Start by asking three simple questions:

- What did we do that worked well?
- Did anything not work well?

Should we do anything differently next time?

8. Ice breakers

Ice Breakers are ideal to get people interacting early on in the meeting and are particularly helpful for new groups coming together. In addition, they help take the group members mind off the meeting content, whilst concentrating on working with each other in a light-hearted way. Furthermore, the icebreaker activity will make each group member feel included, and provide a bridge into the meeting itself.

The guiding principles of selecting an icebreaker are that they should be:

- Fun and engaging for the participants
- Short and simple
- Bring relevance to the subject matter of the meeting or training

9. Meta-planning

Meta-planning is a simple technique that encourages individuals to express their thoughts on the issue under discussion. In summary, it involves writing key words onto Post-it notes and then collectively placing and arranging them into sub-groups on a flip-chart or wall space.

Ask individuals to quietly write one idea per Post-It note and then place the notes onto a board, sheet of flip-chart paper or similar. When all the notes are on the board, you (or one or two members of the group) can then collate similar ideas together and add a sub heading.

As a result, this approach helps to incorporate everyone's ideas and contributions in the shortest amount of time. It also enables the group to come to some quick conclusions.

10. Multi-voting

This technique allows groups to use Brainstorming to generate a long list of ideas. Following this, it is important to narrow down these ideas into a manageable size, for realistic consideration. A selection process involving the whole group then picks the best ideas, to save time.

Here is a summary of the process:

- Once the Brainstorming has been completed, the group reviews the list to clarify and merge similar ideas/options
- Then conduct voting through a show of hands for each option. Alternatively, allow the group to go to the list and mark their choices or use a sticky dot for each viable option. Participants can vote for any number of options.

- The facilitator then counts the votes
 - Votes from half of the group, or more, warrant further discussion and debate
 - The facilitator will circle or make a mark against each item now worthy of further consideration
 - A further vote then takes place based on the reduced list of options, although participants can only vote for half of the remaining options on the list
 - Two more rounds of voting are then used to further halve the size of the list
 - Typically groups need to have three to five options for further analysis
 - Following this, the group then discusses the pros and cons of the remaining options
 - Then debate the pros and cons of each remaining option within the group
 - Finally, the group then makes a choice of the best option or identifies the top priorities for further analysis and debate
- ### 11. Ranking

Ranking is a decision-making technique that helps the group select the most appropriate and relevant idea. Firstly, you can use brainstorming to generate the quantity of ideas you are looking for. Then the group must determine a selection criterion to use, to guide their personal decision-making process, against a numerical scale.

For example, each person might apply a one to six rating, where six is their preferred choice. Finally, the scores of each participant are then added together to determine the most appropriate and relevant idea.

12. Reverse brainstorming

If the group is stuck, you could try 'Reverse Brainstorming'. Essentially, this facilitation method looks at the problem you are trying to resolve from a different angle. In summary, it considers the reverse of the problem you are trying to resolve at the time.

For example, the group might look at 'how to improve business communication'. The reverse of this is 'how to make business communication worse'. Then, once you have the negative list, 'flip' each idea to turn it into a positive.

As a result, Reverse Brainstorming can produce some thought-provoking ideas on improving issues.

13. Round robin

This simple technique aims to raise participation levels or to help define a problem. Then each person in the group is asked to state their views on the issue under discussion, without being interrupted by anyone else in the group.

As a result, the facilitator is then able to get the group to summarise these ideas and views, before the group moves on.

14. Structured problem solving/decision making

There are many different problem-solving processes available, but essentially, most stages follow this structure:

- Define the problem
- Present the background
- Generate ideas
- Group ideas
- Choose the idea/s
- Check commitment

15. Three star rating

Three star rating is a helpful visual group decision-making technique using coloured stickers (all the same colour and star shaped). Start by giving each participant three stars to award against their preferred option or options. The participant then distributes, or splits the stars as they wish. As a result, you have a visual record of the preferred option.

16. Working in pairs or trios

This is an ideal method of group working, particularly at the earlier stages of a meeting. It helps encourage easy participation and break down any initial barriers. As a result, it is also a good way of helping individuals define the issue the group is working on.

Discussions should last about five to ten minutes before bringing the pairs back together to discuss the issue as one group.

17. Conclusion

In conclusion, many of the group working techniques above are useful at specific stages of the problem-solving/decision-making process. These tips will help you facilitate the team's progress in achieving their goal or outcome.

Session Fourteen:

Class room management :

Classroom management refers to the wide variety of skills and techniques that teachers use to keep students organized, orderly, focused, attentive, on task, and academically productive during a class. When classroom-management strategies are executed effectively, teachers minimize the behaviors that impede learning for both individual students and groups of students, while maximizing the behaviors that facilitate or enhance learning. Generally speaking, effective teachers tend to display strong classroom-management skills, while the hallmark of the inexperienced or less effective teacher is a disorderly classroom filled with students who are not working or paying attention.

While a limited or more traditional interpretation of effective classroom management may focus largely on “compliance”—rules and strategies that teachers may use to make sure students are sitting in their seats, following directions, listening attentively, etc.—a more encompassing or updated view of classroom management extends to everything that teachers may do to facilitate or improve student learning, which would include such factors as *behavior* (a positive attitude, happy facial expressions, encouraging statements, the respectful and fair treatment of students, etc.), *environment* (for example, a welcoming, well-lit classroom filled with intellectually stimulating learning materials that’s organized to support specific learning activities), *expectations* (the quality of work that teachers expect students to produce, the ways that teachers expect students to behave toward other students, the agreements that teachers make with students), *materials* (the types of texts, equipment, and other learning resources that teachers use), or *activities* (the kinds of learning experiences that teachers design to engage student interests, passions, and intellectual curiosity). Given that poorly designed lessons, uninteresting learning materials, or unclear expectations, for example, could contribute to greater student disinterest, increased behavioral problems, or unruly and disorganized classes, classroom management cannot be easily separated from all the other decisions that teachers make. In this more encompassing view of classroom management, good teaching and good classroom management become, to some degree, indistinguishable.

In practice, classroom-management techniques may appear deceptively simple, but successfully and seamlessly integrating them into the instruction of students typically requires a variety of sophisticated techniques and a significant amount of skill and experience. While the specific techniques used to manage classrooms and facilitate learning can vary widely in terminology, purpose, and execution, the following representative.

- **Entry Routine** is a technique in which teachers establish a consistent, daily routine that begins as soon as students enter the classroom—preparing learning materials, making seat assignments, passing in homework, or doing a brief physical “warm-up” activity would all be examples of entry routines. This technique can avoid the disorder and squandered time that can characterize the beginning of a class period.

- **Do Now** is a brief written activity that students are given as soon as they arrive in the classroom. This technique is intended to get students settled, focused, productive, and prepared for instruction as quickly as possible.
- **Tight Transitions** is a technique in which teachers establish transition routines that students learn and can execute quickly and repeatedly without much direction from a teacher. For example, a teacher might say "reading time," and students will know that they are expected to stop what they are working on, put away their materials, get their books, and begin reading silently on their own. This technique helps to maximize instructional time by reducing the disarray and delay that might accompany transitions between activities.
- **Seat Signals** is a technique in which students use nonverbal signals while seated to indicate that they need something, such as a new pencil, a restroom break, or help with a problem. This technique establishes expectations for appropriate communication and helps to minimize disruptions during class.
- **Props** is the act of publicly recognizing and praising students who have done something good, such as answering a difficult question or helping a peer. Props is done by the entire class and is typically a short movement or spoken phrase. The technique is intended to establish a group culture in which learning accomplishments and positive actions are socially valued and rewarded.
- **Nonverbal Intervention** is when teachers establish eye contact or make gestures that let students know they are off-task, not paying attention, or misbehaving. The technique helps teachers efficiently and silently manage student behavior without disrupting a lesson.
- **Positive Group Correction** is a quick, affirming verbal reminder that lets a group of students know what they should be doing. Related techniques are **Anonymous Individual Correction**, a verbal reminder that is directed at an anonymous student; **Private Individual Correction**, a reminder given to an individual student as discretely as possible; and **Lightning-Quick Public Correction**, a quick, positive reminder that tells an individual student what to do instead of what not to do.
- **Do It Again** is used when students do not perform a basic task correctly, and the teacher asks them to do it again the correct way. This technique establishes and reinforces consistent expectations for quality work.

Reform

In recent years, classroom management has received an increasing amount of attention from education leaders, reformers, and researchers, who have begun to investigate, analyze, and document the effective strategies used by successful teachers. The growing emphasis on classroom management is based on the general recognition that effective instruction requires effective classroom management, and that strong management skills are the foundation of strong teaching. In addition, there are now more professional-development opportunities related to classroom management being offered to teachers, and there have been discussions about the role of practical teaching techniques in teacher education and certification programs, and about whether such programs have overemphasized education theory at the expense of practical, applied skills that teachers will need in the classroom, such as classroom-management strategies.

Debate

While there is widespread agreement in education that effective classroom management is essential to good teaching, there is often debate about which strategies are most effective, or what is the best way to approach the management of a classroom or other learning environment. For example, some educators might argue that effective classroom management begins with student compliance and classroom orderliness, since learning cannot happen when students are not listening, when they are disobeying the teacher, or when they are disrupting other students in the class. In this case, the teacher needs to establish the behavioral and academic expectations for a class and ensure that students comply with those expectations. Other educators, however, would argue that teachers should approach classroom management by actively involving students in the process. For example, some teachers create common classroom expectations and agreements in collaboration with students. In this case, students play a role in developing the expectations, thereby taking “ownership” over the process, and the teacher then helps the students live up to those expectations by reminding them of the previous agreements they made or by asking the class to reflect on their work and behavior as a group in relation to the agreed-upon expectations—i.e., to identify the areas in which the class is doing well and the areas in which it can improve.

Session Fifteen:

Handling Question answer session: Knowing how to handle questions and answers during a presentation makes the difference.

1. Set the Rules at the Beginning

Let the audience know when and how you'll handle questions. Unless you're giving a formal speech to a large audience, be prepared to take questions throughout your talk, not just at the end. You may, however, want to save Q&A for specific times during your presentation. (If you are making a controversial proposal, it may be wise to ask people to hold their questions until the end of your presentation.)

2. Field Questions Fairly

- Listen to the entire question.

- Understand what is being asked. You may need to rephrase the question and ask, "Did I understand you correctly?"
- Repeat the question only if necessary. If someone asks a question in a large audience without using a microphone or if your presentation is being taped, you will need to repeat the question.
- Correct factual errors or misunderstandings immediately.
- Don't embarrass the questioner. (For example, say "I'm not sure I understand your question..." not "Your question doesn't make sense.")
- Defuse loaded questions.
- Give all audience members a chance to ask questions.

3. Answer Questions Tactfully

- Talk to the audience, not just the person asking the question. Begin by addressing the questioner, then turn to others in the audience. When you finish, look to some other part of the room and ask, "Who else has a question?"
- Be respectful: avoid sarcasm, criticism, or arrogance.
- Keep your sense of humor.
- Answer the question as directly and briefly as possible without being abrupt.
- Use your answers to reinforce your main points. Avoid making a presentation about a whole new subject.
- Don't be afraid to say, "I don't know, but I'll get back to you with the answer."
- Postpone questions that require lengthy answers. Give a brief answer, admit that there's more to be said, and offer to discuss it more fully in private.
- Turn certain questions back on your audience, asking for their input.
- Retain control of the situation, deciding when to move on.

4. Have Your Own Questions Ready

Some audiences will be slow to ask questions. Instead of asking, "Do you have any questions?", ask "What questions do you have?" You may want to begin with a question or two of your own. "I'm often asked..."

5. End the Q&A with a Summary

After you've answered the last question, wrap-up your presentation with a one or two sentence summary. Don't simply say, "Thank you," and sit down.

FDP

MATHEMATICS

Session Plan-Components

| Time | Content | Learning Aid/ Methodology | Faculty Approach | Learner's Activity | Competency | Skill |
|------|--|-------------------------------------|---|------------------------|-----------------|-----------------------------|
| 5 | Introduction To Ordinary Differential Equation | Explains with Type and Chalk method | Presents Examples | Listens | Understand | Interpersonal |
| 15 | Define Methods for Solving ODE | PPT Presentation by Direct Method | Facilitates, Explains and Solved Problems | Observe and Recognizes | Understand | Spatial/ Visual, Logical |
| 15 | Analytical Method for solving ODE | Solved by PPT | Examples Question & Answer | Observe and Recognizes | Analyze, Solved | Analytical Interpersonal |
| 15 | Numerical Method for solving ODE | Solved by PPT | Examples Question & Answer | Participant Recognizes | Analyze, Solved | Numerical Interpersonal |
| 10 | Summery | Chalk Talk & PPT | Explains | Listens | Remember | Interpersonal |

Introduction to Ordinary Differential Equations

$$\frac{dy}{dx} = f(x, y), \text{ with initial Conditions } y(x_0) = y_0$$

Solution of ODE By

- Analytical Method
- Numerical Method

Analytic Method (Direct Integration)

1. Ex. Solve $\frac{dy}{dx} = x^2 + 2$ with I.C. $y(0)=0$

Integrating given diff. equation $y = \frac{x^3}{3} + c$ ----(1)

Using I.C. in (1) we get $c = 0$

Using $c = 0$ in (1) we get required Solution as $y = \frac{x^3}{3}$

Assignment -1. Solve $\frac{dy}{dx} = x^2 - y^2$ with I.C. $y(0)=0$

Linear Equation Method: The Equation of the type $\frac{dy}{dx} \pm py = q$

Solution Formula $y * (I.F) = \int q (I.F)dx$ and

$$I.F. = e^{\int p dx}$$

Ex. Solve $\frac{dy}{dx} + xy = 2$ with $Y(0)=0$

First find I.F. i.e. $I.F. = e^{\int x dx}$ where $p = x \Rightarrow I.F. = x$

Then Solution is $y * (x) = \int 2 (x)dx$

$$y * x = x^2 + c \quad \dots 1$$

Using I.C. in (1) Solution become $y * x = x^2$ because $c = 0$

Assignment: Solve $\frac{dy}{dx} - xy = 2$ with I.C. $Y(0)=0$

Numerical Methods: Runge-Kutta Method(Fourth Order)

Runge-Kutta Formula is $y = y_0 + \frac{(K_1 + 2(K_2 + K_3) + K_4)}{6}$

Where $K_1 = hf(x_0, y_0)$

$$K_2 = hf(x_0 + \frac{h}{2}, y_0 + \frac{K_1}{2}),$$

$$K_3 = hf(x_0 + \frac{h}{2}, y_0 + \frac{K_2}{2})$$

$$K_4 = hf(x_0 + h, y_0 + K_3)$$

Ex. Solve $\frac{dy}{dx} = \frac{1}{x+y}$ with I.C. $y(0) = 1$ and $h = 0.5$

Solution: First find K_1, K_2, K_3 and K_4 for the given diff. equation using

Calculator

Runge Kutta Formula is $y = y_0 + \frac{(K_1 + 2(K_2 + K_3) + K_4)}{6} \dots(1)$

$$K_1 = h\left(\frac{1}{x_0 + y_0}\right) \Rightarrow K_1 = 0.5$$

$$K_2 = h\left(\frac{1}{(x_0 + \frac{h}{2}) + (y_0 + \frac{k_1}{2})}\right) \Rightarrow K_2 = 0.3333$$

$$K_3 = h\left(\frac{1}{(x_0 + \frac{h}{2}) + (y_0 + \frac{k_2}{2})}\right) \Rightarrow K_3 = 0.3259$$

$$K_4 = h\left(\frac{1}{(x_0 + h) + (y_0 + K_3)}\right) \Rightarrow K_4 = 0.2698$$

$$(1) \Rightarrow y = 1.3571$$

Assignment: Solve $\frac{dy}{dx} = x + y$ with I.C. $y(1)=1$ for $h=0.2$

On
“ART & SCIENCE OF TEACHING- LEARNING PROCESS”
(From JULY - 2 to JULY - 6, 2019)

D8.

ATTENDANCE SHEET

[illegible]

[illegible]

[illegible]

[illegible]



SHARNBASVESHWAR
COLLEGE OF SCIENCE, KALABURAGI
FIVE-DAY FACULTY DEVELOPMENT PROGRAMME (FDP)
(UNDER IQAC)
ON
"ART & SCIENCE OF TEACHING - LEARNING PROCESS"
From 2nd July 2019 to 6th July 2019
By
DR. N.M. BESHPANDE
Sharnbasveshwar Academy, Pur







SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. Kaladevi. S. Karikal

Venue Sharnbasveshwar College of Science, Kalaburagi

1. What were the objectives of the programme?

- Improve the quality of teaching
- Incorporation of modern techniques in teaching
- Involvement of learners with Facilitators
- Understanding the ~~std~~ learners interest.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

|| Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

|| Yes No

* My thoughts, feelings & learning after the programme

- About 50% of techniques following in the classroom. After this 5 days FDP, I felt we have to adopt other techniques like Role play, Group Discussion, Brain storming etc. I learned how to ~~can~~ start the topic, & planning of topic. which can influence the students & become a good learner, analyst & creator.

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Basavaraj S. Narabadi MSc. (Ph.D)

Venue: S.B. College of Science, Kalaburagi - 585103

1. What were the objectives of the programme?

- * Deliver session with planned arrangements to enhance effectiveness
- * Identify the strength of the students & teach them according to their level of understanding.
- * Teach with the aid of demonstration.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes

No

* My thoughts, feelings & learning after the programme

Feels good, & now i know how to prepare for the class, how to deliver a lecture, what to do & what not to do. How to fulfill the blooms taxonomy.

Earlier i used to be very shy never used to smile in the class, now ill make sure i have a little smile on my face when i enter the classroom.

Thank you ...

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Pavan Mohan Rao

Venue S. Sharnabsveshwar College of Science

1. What were the objectives of the programme?

To know about Learning methodology in
teaching
How to teach in classrooms & what
are rules we have to follow in teaching.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

☒ Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

☒ Yes ☐ No

* My thoughts, feelings & learning after the programme

Sir, you explained it very well.

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. Chaya V. Bharatnagar

Venue Dept of Music, Sharanbasveshwar College of Arts.

1. What were the objectives of the programme?

बेहतर शिक्षण व्याप्त आज हमने आपसे हमको मिला है
और इस तरह शिक्षण के लिए आवश्यकता नहीं थी
या आगे हम जो पाँच दिन में दी गई Knowledge
हमारे अलायस तक follow करते हैं.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

☒ Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues? | ☒ Yes ☐ No

* My thoughts, feelings & learning after the programme

सुझाव Improvement Bohot Jaruri Hai Hamre liye
Aur Hamare teaching me Lane ki prayatna Hum
Karti Hoo. Aap Ke Ashirwad Sada Rhenai..
Service ke twenty years me Aap Ke Jaise gurur
Hame Nahi mila Hai

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. Swarnya Rani. H

Venue Sharnabveshwar College of Science, Kalaburagi
Karnataka.

1. What were the objectives of the programme?

make a teacher a Facilitator in all aspects
inspite of all obstacles or problem whatever
He should ~~now~~ become a instrument to bring
a permanent behavioural change in the learner
& make learning process a enjoyable & enhancing

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

☒ Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

☒ Yes ☐ No

* My thoughts, feelings & learning after the programme

Since my thirty years of service I have taken this
job as very precious & responsible job I do
his ever since but now I got some beautiful tips
to enhance my methodology to help the learner in
giving all round personality development as well as
best part of (Praja) the modern society of
India to make it brightly visible on the world

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - HARSHAVARDHAN. A.

Venue S. B. College of Science.

1. What were the objectives of the programme?

'Effective learning'. To involve student in effective learning by doing. Counseling, to develop student's activity, to motivate, to share responsibility, to develop communication skills, and many more. It is not only for student its for the faculty because learning is change in behaviour.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes

No

* My thoughts, feelings & learning after the programme

I am very happy to take this five days.

FDP Programme. I thank Sri. NITIN DESHPANDEY SIR SIR.

He is 'Guru ke Guru' Maha Guru. Thank you.

I learnt lot of things from you.

With love

Harshavardhan A.

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. Omprakash. S.

Venue Sharnabsweshwar Science College, Kalaburagi

1. What were the objectives of the programme?

To switch from age old teaching method almost containing chalk & board to the modern & scientific teaching & learning process, where education would remain student centered and not the teacher centered. !!!

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

☒ Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

☒ Yes

☐ No

* My thoughts, feelings & learning after the programme ...

Simply Excellent & Excellent.

SHARNARSVESHTWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Smt. Jayashree Chalegeri

Venue: S. B. College of Science Kalaburagi

1. What were the objectives of the programme? No. of teaching methods
Deliver sessions with planned assignments
Specific, Measurable Achievable Elastic
Time bound, Short & focused
learners-centric

It is very good programme, which are very helpful for us

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

☒ Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

☒ Yes

☐ No

* My thoughts, feelings & learning after the programme was good
& feedback for Planning of session was very nicely
explained.

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - DONNEGOWDAR VENKANNA

Venue S.B. College of Science KALABURAGI

1. What were the objectives of the programme? ?

It is Excellent scheduled, Sir.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

☒ Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

☒ Yes

No

* My thoughts, feelings & learning after the programme

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SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. Jayaprakash. D. Okar.

Venue S.B. college of science - Kalaburagi

1. What were the objectives of the programme?

It is excellent schedule, we are learned the art & science of teaching. In future I am once again trying attend F.D.P.

2. To what extent they were fulfilled?

Completely



Partially



Not at all



3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes

No

* My thoughts, feelings & learning after the programme ... change acceptance practice & perform, practice

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Seena Naik

Venue S.B College of Science, Kalaburagi

1. What were the objectives of the programme?

To an enhance quality, improvement of education system

To examine the teaching- Learning Process.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes ☒ No ☐

* My thoughts, feelings & learning after the programme

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SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Channabasava. M. Patil

Venue S.B. College of Science Kalaburagi

1. What were the objectives of the programme?

The Objective as I have seen it was totally to encourage each one who participated and to take them towards the quality, with confidence.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes No

* My thoughts, feelings & learning after the programme

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SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Pradeep Kumar. D

Venue Sharanbasveshwara college of Science, Kalaburagi.

1. What were the objectives of the programme?

To know the Important of teaching & learning
To know the communication skills.
Presentation skills. etc.

2. To what extent they were fulfilled?

Completely ☐ Partially ☒ Not at all ☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes

No

* My thoughts, feelings & learning after the programme

9

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Sharanamma warad

Venue Sharanabasaveshwar College of Arts

1. What were the objectives of the programme? Kalburgi.
- ① Deliver sessions with planned arrangement to enhance effectiveness.
- ② Encourage learning of students from HOT

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

✓
Excellent/Good/Satisfactory/Not up to mark

✓

4. Will you recommend this programme for other colleagues?

✓
Yes

No

* My thoughts, feelings & learning after the programme

A lot of involve myself.
Different types of effective teaching.

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. Nanda. S. Warad

Venue: - GFGC Kumbhavi

1. What were the objectives of the programme?

programme was very good & fantastic.
I have never seen such programmes.
I learnt everything which I did not know.
All the sessions are very effective.

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes ☒ No ☐

* My thoughts, feelings & learning after the programme ...is good.

enjoyed the sessions & learnt everything.
If again such programmes I try to attend.
& I may learn which I do not know, the
things, & felt very fine.

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. Basavaraj Evale

Venue S. B. College of Science, Kalaburagi

1. What were the objectives of the programme?

The role & responsibility of Teacher & learner.

This programme is very informative and enhance the knowledge, skill and values needed to ^{succeed in their} ~~necessary~~ for academic role - as - educator, scholar and member of academy. It enhance the teaching & learning process.

2. To what extent they were fulfilled?

Completely

☐

Partially

☒

Not at all

☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes

No

* My thoughts, feelings & learning after the programme

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SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. Chitralakha Ahir

Venue: _____

1. What were the objectives of the programme?

Deliver sessions with planned arrangements to enhance effectiveness.
Encourage learning of students from L.O.T to H.O.T.
Associate Art & Science of Teaching as a pathway to tap
varied capacity of students

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark
✓
V

4. Will you recommend this programme for other colleagues?

Yes ☒ No ☐

* My thoughts, feelings & learning after the programme ...able to learn
how to do Lesson plan.

Thank you Sir,

Shabd me nahi
bayan nahi kar sakta
what I have learn

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Smt. Jagadevi. Gudda

Venue Sharnabveshwar College of Science, Kalaburagi

1. What were the objectives of the programme?

To improve the quality of teaching, by adopting various teaching aids. Number of learning processes to get more knowledge and skill.

2. To what extent they were fulfilled? ||

Completely

☐

Partially

☒

Not at all

☐

3. How do you rate various sessions?

|| ✓ Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes ✓

No

* My thoughts, feelings & learning after the programme

Got number of ideas to implement in our teaching method, After this FDP I came to know that the group discussion allows us to share others views, ideas. Play role demonstration helps to clarify any concept. In each example whatever Sir explained will give ^{useful} one message which makes learners to be creative

SHARNABSVESHWAR COLLEGE OF SCIENCE, KALABURAGI

Faculty Development Programme

Feedback Format

Title of the Programme: - Art & Science of Teaching- Learning Process

Date/s of the Programme: - July 2-6, 2019

Name of the Participant: - Dr. S. T. Sulepetkar

Venue: - Sharnabshwar College of SC, Kalaburagi

1. What were the objectives of the programme?

Delivers Sessions with planned arrangements to enhance effectiveness

Identify the interconnections between skills, intelligence and learning in class rooms

Demonstrate learning in class room/lab sessions

2. To what extent they were fulfilled?

Completely ☒ Partially ☐ Not at all ☐

3. How do you rate various sessions?

Excellent/Good/Satisfactory/Not up to mark

4. Will you recommend this programme for other colleagues?

Yes

No

* My thoughts, feelings & learning after the programme

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