

CHAPTER - IV

DATA ANALYSIS AND INTERPRETATION

4.0 Introduction

The data analysis has been presented in this chapter objective-wise.

4.1 Analysis of Objective 1

Objective: To study the status of Innovative Practices in the Secondary Level Teacher Education Institutions of Gujarat State.

Analysis of the Data collected through questionnaire and check list have been presented as follows:

From the surveyed institutions it was found that none of the Teacher Education institutions was found to conduct entrance exam as an admission modality. Each university was found to have its own admission criteria as per the rules and regulations of the State government, UGC and NCTE.

Most of the surveyed Teacher Education institutions were following Herbertian Approach and Blooms Approach of lesson plan. Very less number of Teacher Education Institutions was found to implement lesson plans based on Life Skills, Multiple Intelligence, Constructivist Approach and Digital Technology in Practice Teaching. Many of the Teacher Educators and Principals were of the view that these innovative practices in lesson plans could become a reality if affiliating universities and regularity bodies make it compulsory.

One of the private universities has adopted Constructivist Approach based lesson designing. After practicing in a simulated condition the student-teacher take up lessons in school during practice teaching phase. The details of this practice have been presented on page_126.

One of the surveyed Teacher Education Institutions was found having adopted Script writing practice based lesson plan. In this practice, the student-teachers described each and every aspects of the particular lesson which is delivered by them in the schools during the practice teaching. One could get the whole idea of the lesson after reading the Script. The

details of Script writing Based lesson plan practice have been written on page_172.

As per the surveyed universities curriculum, preparing two digital lessons was compulsory for every student-teacher. One of the Teacher Education Institutions was found to conduct training of 40 hours for the student-teachers for preparing digital Lessons. The student-teachers were encouraged to refer websites to collect information regarding their proposed lesson plans, like text images, charts, video and audio. The details of digital lesson plan have been presented on page_162.

Out of 11 universities surveyed, six universities were found to have a specific format of lesson plans, whereas, the other universities had given freedom to the institutes to make lesson plans on their own. One of the self financed colleges was found having incorporated Value and Activity Based learning components in their lesson plans. The details of Activity and Value Based learning lesson plan have been presented on page_168. Another institution incorporated 30 percent extra information in Science lesson plans by practicing Spark sessions. The details of spark sessions have been presented on page_207.

It was found that out of 11 universities only one university was found implementing Multiple Intelligence Based Lesson plan. The details of Multiple Intelligence based lesson plan has been written on page_139.

It is evident through the study that the different innovative lesson plans designed through Constructivist Approach, Multiple Intelligence and Life skills were found having activity based components, whereas, in the general lesson plans the student-teacher tried to incorporate contents mentioned in the format.

One of the surveyed institutions was found practicing Teaching Learning Process through Participatory Learning. The practice was aimed to build a successful teaching strategy in which small teams, with student-teachers of different levels of ability, used learning activities to improve their understanding of content. The details of this practice have been presented on page_212.

During the orientation time each skill was demonstrated by the Teacher Educators. During skill orientation these were only method classes to strengthen the orientation to skills.

- The study reveals that Demonstration lessons were given by each Method Masters in the respective Teacher Education Institutes. School students of sister institute were invited in the college to familiarize the student-teachers with real class-room situations. Student-teachers served as observers. Faculty members also observed the demonstration lessons and provided feedback which turned to be extremely useful for student-teachers as it removed their confusions & mistakes in their practice teaching. The details of this practice have been presented on page_265.
- All the respondents not only recommend the delivery of demonstration lessons in all method subjects but also the increase in number of demonstration lessons in each method subjects so as to cover varieties of methods of teaching each subject.
- Student-teachers and remaining faculties observed the demonstration lessons and gave the feedback and reflections.
- A healthy discussion at the end of demonstration of micro-teaching lesson took place. The faculty helped student-teachers to reflect on different aspects of practice teaching and practical implementation of theory.

It was observed that most of the Teacher Education institutions were following Micro-teaching approach. Micro teaching has been accepted as an effective tool for training of teachers in the development of various skills. It is conducted by allowing student-teachers to prepare a short plan on a particular skill e.g. skill of questioning, skill of explanation, teach it to a small group of students for a short time. After the teaching gets over the student-teachers review the lesson along with the peers and Teacher Educators. In the light of feedback received, the lesson is re-planned and re-taught, and the process continues till one attains mastery.

Out of 11 universities only one institution was found to have adopted Simulated Stage Teaching Practice (SSTP) approach in micro teaching phase. The details of this practice have been presented on page_178.

Moreover, a few of the institutions were found to have a special strategy in simulation/micro-teaching, like, showing compulsory video clip for each student-teacher, to make them learn to explain and manage ICT skills.

Recording lesson:

Micro lessons given by the student-teachers were recorded in both the forms: audio and video. Student-teacher got the input for re-teaching phases from these recordings.

Orientations and workshops were organized for Content Analysis, writing objectives, Lesson Plan and Unit Plan. In the orientations the practices followed were to do content analysis, and writing instructional objectives. The lesson plan and unit plan formulations were explained first and different examples from different subjects of school were shown. Later in the workshops the student-teachers practiced the same with the lessons and units provided for them from their practice teaching schools in respective phases. The institutions which adopted different lesson plans like Life Skill based lesson plan, Constructivist lesson plan and Multiple Intelligence based lesson plan, were also giving orientations for the same.

From the surveyed institutions, it was found that few of the Teacher Education Institutions were observing new practices, like, providing opportunities to teach in different types of schools i.e. rural school, urban school, and sub-rural school. The details of this practice have been presented on page_274. Only two institutions were found to be providing International School teaching exposure to their student-teachers. The details of International School Teaching Exposure have been presented on page_182.

A majority of the Teacher Education Institutions were following the traditional approach block teaching/Practice teaching, which included going to schools (State Board recognized schools) in two phases after simulation or micro teaching. Four of the surveyed institutions were found practicing using Smart Board/Interactive White board. The purpose of using Smart Boards was to give hands on experience to teach through Smart Boards/Interactive White Boards (IWB) produced by Smart Technologies. The details of this practice have been presented on page_271.

- It was observed that generally the time span of block teaching is of 5 to 7 days. Since the student-teachers have some experience of practice teaching, they were allowed to give two lessons per day. The observation, evaluation, feedback is carried out in the way as was in practice teaching. Here also the student-teachers observed the lessons of their peer group members.

- Before one week of the commencement of block-teaching/practice teaching, the institutions receive written permission from schools. Any special requirement of the schools was inquired and taken care of. Time-Table of the schools was also obtained at this point of time. After that student-teachers consulted the teachers of the school and collected units to be taught.
- Group in charge of each group prepared time-table which was sent to schools two days before the first day of block-teaching. The time-table was having a space for arranging co-curricular activities and for administration of psychological test and Experiments.
- Scientific use of audio-visual aids was encouraged during this phase so that the teaching could be effective and the student-teacher could have an exposure to teach in a different manner.
- Moreover, the lessons were observed by the Teacher Educators as well as the experienced schools teachers. Student-teachers also observed the lessons as each of them has to observe 40 lessons. Not only this, student-teachers also observed, though not compulsory, the lessons of school-teachers.
- During the practice teaching phase the Teacher Educator observed 2 to 3 lessons given by the student-teachers in one period and notes down all important aspects of the teaching of the student-teachers. Feedback was given to the student-teacher in his/her lesson plan book.
- At the end of the day the Teacher Educator (group in charge) conducted an informal meeting. He/she gave feedback to each student-teacher regarding his/her content, skill, and teaching process. He/she also highlighted teaching efficiency and skill of some of the student-teachers, and encouraged other student-teachers for better performance.
- At the end of the practice teaching programme a general assembly was held at college. One representative from each group would come and share teaching learning experiences. Best teaching practices of student-teachers were discussed. It was found that most of the student-teachers gained a lot of benefit from these rich experiences. Draw-backs and loopholes were also highlighted. Group in charge Teacher Educators also gave suggestions and inspired the student-teachers to do better.

- Moreover, it was noticed that along with this academic aspects, the student-teacher were supposed to organize cultural programme, five school level competitions for school children, conduction of psychological tests, and conduction of unit tests during practice teaching phase.

From the surveyed institutions it was found that, most of the institutions were focusing on practical aspects of each student-teacher i.e. framing objectives in lesson plan, use of A.V. Aids, explanation, conducting activities in classroom, use of Black board, Group work, punctuality, confidence, voice modulation, dealing with students, and giving reinforcement in evaluation of practice teaching.

- Each student-teacher was supposed to give 20 lessons in each Method. The lesson plan was prepared keeping in mind 35 minutes of period.
- The faculties provided their progressive feedback in lesson plan, which helped student-teachers to reflect on the practice teaching.
- Student-teachers observed the lessons of college. They kept the lesson observation book and observed 40 lessons in a year.

From the surveyed institutions it was noticed that, out of the 11 universities only two universities have adopted rubric to give feedback along with the oral feedback. [Appendix _XI] Whereas in other institutions Teacher Educator rated each lesson on a decided respective Rating Scale depending on the university and gave feedback suggesting both strengths and weaknesses of lesson.

In general the following mechanisms were observed to provide feedback related to theory and practical related aspects.

- Very poor and excellent lessons were taken care of by giving individual feedback.
- Many Teacher Education institutes were found to have developed oral as well as written feedback mechanism system. Usually written feedback was given to the student-teachers in their lesson plan register.
- Exam feedback: For theory papers, special notes / remarks were found to be given in the answer sheets of student-teachers. Oral feedback was also given by each Teacher Educator. Moreover the student-teachers also consulted the Teacher Educators personally to discuss their answer sheet and sought feedback for improvement. Giving prompt feedback

was found to be the best way to communicate the performance and achievements. Answer sheets of the internal examination were shown to the teacher trainees and written remarks were given on the answer papers if required. This was supplemented with oral feedback to the teacher trainees for further improvement in their performance in the examination.

- Lesson Planning: The lesson plans for practice teaching were approved by the method teacher after giving intensive guidance and feedback for their first draft of the lesson. Many times student-teachers wrote the draft of lesson for two times before getting it approved.
- Micro Teaching: During micro teaching, instant feedback was found to be given to the teacher trainees through teacher and peer group observations. The slow learners were oriented and guided on proper techniques and study skills to improve the performance. The high achievers were motivated by appreciating their performance.
- Practice Teaching: During the Practice Teaching phase since it was not possible for the Teacher Educators to observe the full lesson (from the first step to the last one) of the student-teachers as they had to observe 2-3 lessons at a time. The student-teachers received feedback from the observation book of their peer group members too. At the end of the each practice teaching day the group in charge Teacher Educator called out a meeting and provided feedback orally.
- One of the institutions was found practicing annual test lessons where textbook materials were not allowed to be taught during test lessons. .
The details of this practice have been presented on page_275.

From the survey it was observed that very less number of Teacher Education institutes was found practicing reflective way of teaching practice in the teaching learning process.

By collecting information about what was going on in the classroom and by analysis and evaluating this information, the institute identified and explored its own practices. For reflective teaching, the faculties set the following steps to ensure it.

- Think: By analyzing and evaluating teaching practice, faculties think about different patterns and feedback of the student.
- Talk: Faculties of institute talk to each other and even discuss the issues in staff meetings.
- Read: They discuss the useful techniques to get reflection on different issues.

The Teacher Education Institutes were found to consider reflective practice in the following major areas.

1. Reflective teaching by the faculties of the college
2. Reflective teaching by student-teacher in micro-lesson, simulation and practice lesson

From the surveyed institutions it was observed that the Teacher Education institutions of four universities and five self financed institutions were found to have developed more than 100 ICT aided instructional material for general subjects of B.Ed. Courses. Further, student-teachers prepared two digital lessons as per curriculum as it was made mandatory by the universities. In the digital lesson, the student-teachers collect related material from different e-resources available in library and internet and designed power point presentation.

The institutes promoted the student-teachers and encouraged them for preparing teaching-aids, lesson plans, practice teaching and classroom activities etc. with the help of ICT & technological resources. Student-teachers were provided proper guidance and help for preparing their practice teaching lesson plans, research related work by computer instructor.

The major areas in which student-teachers used technology are

1. Classroom interactions -

Student-teachers were found to use power point presentation, LCD & OHP for effective interactions with students during classroom teaching.

ICT was being used for the assessment and evaluation as follows:

- Preparing all instructions related to assessment
- Preparing question banks
- Typing question papers
- Typing assessment schemes
- Typing evaluation charts for various activities

- Recording in result sheets
- Analysis of result

2. Making Teaching Learning Material -

For Student-teachers TLM making was found to be a compulsory part. For preparation of TLM making work student-teachers were encouraged to collect information regarding suitable instrument, charts, pictures and audio-video. After preparation of all this materials, students compiled all the things & made an attractive TLM during workshop of TLM making.

3. Access to e-resources -

Two institutions were found to have Open Educational Resources (OER) for the access of various important e-materials which is to be downloaded from their respective website. ICT and internet connectivity created an opportunity to access e-resources from ocean of knowledge. The details of this practice have been presented on page_269.

4. For presentation -

The student-teachers of B.Ed. Programme were found to design power point presentation for various activities, like, seminar paper presentations & organizing of different days and quiz competitions.

It was observed that in many Teacher Education Institutions the faculty members used self-prepared power point presentations, downloaded videos, ready to use worksheets, and multimedia modules for the orientation of lessons and theory teaching sessions. Moreover, it was found that many institutions have prepared CDs of lesson Demonstrations for each method given by the faculty members. The student-teachers were shown these demonstrations and asked to view it critically so as to gain some experience of real classroom situation.

From the surveyed Teacher Education Institutions it was observed that the institutions encourage action research. Before 2010-11, action research was a part of internal assessment in the curriculum. But some of the universities dropped the Action Research in curriculum from 2011-12 onwards. So, the action research was not found compulsory as per the curriculum of these universities.

- Some Teacher Education institutes arranged workshops for action research and acquainted student-teachers with action research. Student-teachers conducted action research during internship phase. It was mandatory activity for student-teachers in internship.
- Student-teachers studied the various educational problems of school students of that particular school. Action research was carried out in group. Students studied the various problems i.e. absenteeism, indiscipline, learning problems, low achievement in a particular subject, and other problems.

From the surveyed Teacher Education institutions, it was found that special paper on Life Skills Education was added in the curriculum in one institution, whereas, the other institutions are integrating life skills by adding extra inputs in the general syllabus. The details of Life skill Education course practice have been presented on page_259.

- The student-teachers were found to be exposed to various experiences by thinking how they could contribute to the social issues. The student-teacher representatives for various committees were elected democratically. They also participated in discussion for planning and also took part in implementation and evaluation of the programme. They were also made aware of the rights and duties of citizens. Further they were explained that they are world citizens in this age of globalization. This helped them learn citizenship values.
- In the daily assembly, prayer, post prayer talk also inculcated values among the student-teachers.
- Student-teachers served as volunteers in various Cultural programmes, Blood donation camp, Community projects. This developed values of cooperation and Social service.
- Through the visits of various social institutions, like, Old Age home, Indian Red Cross society, Senior Citizens Club, student-teachers were sensitized towards the value of love, affection and sympathy.

From the surveyed Teacher Education institutions it was noticed that only two institutions were giving innovative projects to the student-teachers. The details of this practice have been presented on page_274.

The student-teachers were given training in using MS Office and Internet for educational purposes. A special orientation was Planned where in every student-teacher was given lab-sessions to become efficient in using computers. Utilizing this as a base, the student-teachers were expected to prepare an E-plan (A power-point presentation for teaching a topic).

The following measures are adopted to keep the student-teachers engaged in active learning.

Practicum and field work was assigned to student-teachers in each semester. These field works could be individual activities and also group activities. Visit to educational institutes, taking interviews of renowned teachers, collecting information about educationists through internet, visit of historical places and receiving information were some of the field works that engaged them in active learning.

Assignments, Project Work, Practical work & Seminar topic were assigned according to students' interests & potentialities.

From the surveyed Teacher Education Institutions it was found that only two institutions were found very active by doing Socially Useful Productive Work. The details of the adopted various activities by the institution have been presented on page_235.

Moreover, social services and awareness programmes in villages rally against female infanticide, awareness of the election process, awareness regarding right to education and information provided a scope for implementation of the objectives of the curriculum and truly explained the role of diversity and equity.

Path Natya (Street Play), Debates, Rally, Tree Plantation and various competitions were found to be instrumental in bringing a desired social change in the above mentioned fields.

The following were the activities adopted by the different surveyed Teacher Education institutions under SUPW programme.

- Various extension activities of the colleges have contributed a lot for local community.

- Student-teachers were sent to surrounding villages and they arranged book fair there, provided books to village youth for reading.
- The village people were made aware of RTI, RTE by the student-teachers.
- Student-teachers visited to Old Age Home. They talked with the elderly people there, played game and presented to them fruits and things.
- Tree Plantation, Save Girl Child Rally, and Street Plays on social awareness were conducted by the colleges.
- The student-teachers and the faculty members donated blood in the Blood Donation Camps organized by the institutions.
- *Gram safai*, Traffic Control, *Road safai* were put into practice very effectively.
- Fund was collected and donated to the victims affected in the natural calamity of Uttarakhand flood.
- The college made it sure that the student-teachers, participated very sincerely in all the government initiatives, like, Voter Awareness Programme, *Vanche Gujarat Abhiyan*, Gujarat Quiz.
- Seminars on Career Guidance, Latest Educational Trends, and Job Opportunities, were organized by the institutions for the benefit of the youth of the local community.
- Presentations on Personality Development and Communication Skill were done for the benefits of student-teachers.
- In addition to this, several faculty members were found to be collaborating with the government and Non-Government organizations.

Social Responsibility Group - one of the surveyed institutions was found to have framed a Social Responsibility Group to sensitize the student-teachers towards their social responsibility. Further, social work activities were assigned to them by keeping in consideration their interests, likes, abilities and their social background. They rendered their contribution in various fields, like, environmental awareness, best

health practices, awareness of right to information, current political trends of country, and dignity of women.

One of the surveyed institutions was found practicing Creative Hands through organizing exhibition by preparing creative materials in the Teacher Education institution. However, some interesting experiences and programmes related to the above mentioned programme have been presented on page_225.

Separate orientation programmes were being organized in very few institutions for the practical work activities. Teaching aid preparation and use during simulation, preparation of blue-print and implementation during practice teaching, test administration where a psychological test is administered and results discussed and action research were some of the activities mentioned by one institution.

Self-Learning Material/Instructional Material, in the form of PLM and Innovative Booklets were used for enhancing comprehension during teaching learning and to improve communication abilities in English.

Since knowledge and skills are best demonstrated in activities of interest, the Teacher Education institutions arranged various cultural activities. The student-teachers not only participated in such activities, but they also organized and took leadership in such programmes, such as, essay writing, debate, exhibition work-shop, celebration of days and drama are some of the activities that drew out the best of them. The values that they have been taught could be seen in such activities. The activities sharpened their skills. The activities helped to develop their personality, inter-personal communication and a sense of unity.

From the surveyed Teacher Education institutions it was found that they have a remedial program for academically low achievers.

- The Faculty Provides additional Guidance to the low achievers. This helps both the advanced learners in getting challenges and Additional learning to the slow learners.

The following measures were adopted to improve the academic performance of the student-teachers in general

- Extra classes were conducted if there was a difficulty in understanding the content.

- To facilitate understanding among the vernacular medium students, extra classes were conducted.
- Remedial teaching was arranged for the slow learners.
- Counselling sessions were organized with the help of Guidance & Counselling Committee of the College for student-teachers facing personal problems.
- In the beginning of the academic year, a pre-test was conducted. Based on the scores of the test, weak students were identified.
- Such weak student teaches were encouraged to solve previous years' exam papers. These papers were assessed to diagnose their problems. They were given suggestions and guided for further improvement so as to ensure that they achieved the desired levels.
- Zero lectures, i.e. extra lectures were arranged for the weak student-teaches.
- Material prepared in easy language was distributed to weak student-teachers.
- Low achievers in teaching skills were identified through micro teaching. The respective Teacher Educator of micro teaching group guided the student teaches for the preparation of the lesson plan.
- One of the institutions was found practicing Peer Tutoring.

It was found that the Internship programme was conducted through on campus as well as off-campus modes. The student-teachers were sent to the school after an orientation. They would be in schools for a period of 10 days. They worked as deputed teacher in a particular school wherein they were entrusted to do various activities. In order to understand the functioning of the school the student-teachers were expected to observe and learn how to maintain the following documents/records.

Table_4: List of Documents/Records to be gathered during Internship

<p>Documents Required</p> <ol style="list-style-type: none"> 1. Attendance (Teacher Trainees) 2. General Register (GR) 3. Attendance Register (Staff) 4. Attendance Register (Students)

5. Bonafide Certificate
6. Leave taking certificate/Transfer Certificate
7. Fee receipt
8. Teachers' Diary
9. Students' Diary
10. Computer Laboratory details
11. Science Laboratory details
12. Games and Sports details
13. Library Room details
14. Arts and Crafts Room details
15. Time table
16. Guidance and Counselling Centre (if any)
17. P.T.A. details
18. Subject Club details (Mathematics/Science/English/Social Studies, etc.)
19. Prayer details
20. Organization of Co-curricular activities
21. Certificate of Internship Completion from the concerned School Principal
22. School Leaving Certificate
23. Innovative work done (if any)
24. Any other.....

Generally to carry out the internship programme, student-teachers were sent to the village school to make them aware and sensitize them to the needs of village children.

- Internship programmes in all the surveyed institutions were pre planned. It was observed that the Teacher Education institutions have developed special modules for the internship programmes.
- The module comprises of evaluation process of practice teaching and activities. It also comprises the day to day planning. The format of different timetables is available in internship module. The module also comprises of attendance report, general register and result sheet. It also comprises the list of different social and welfare activities in school setting.
- Student-teachers conducted action research and psychological experiments during internship.

- During internship, student-teacher delivered lessons as per the demands of the respective institutions and they observed lessons given by peer group as well as school subject teachers.
- Student-teachers also participated and conducted prayer activities.
- At the end of internship, student-teacher submitted the report of internship, individually and in-group also.
- The institutions also gathered feedback of student-teacher regarding internship.
- Teacher Educators took due care to ensure that for internship and off campus programmes villages/schools are allocated in such a way that every group of student-teachers has all the diversities - social, economical, regional, and linguistic so that, during their stay the student-teachers from weaker sections would easily mingle with the student-teachers of urban locality and upper classes of the society to realize uniformity.
- In addition to teaching, student-teachers carried out various academic, administrative and cultural activities which are as follows:

Table_5: Academic, Administrative & Cultural task to be performed during Internship

Cultural	Academic	Administrative
Managing Prayer Assembly	Administration of Unit Test	Preparing Registers
Organizing and Managing various Cultural Activities	Evaluation of the test	
Assistance in the Arrangement of Tour (if any)	- Taking attendance - Administration of Psychological Test	

To evaluate the student-teachers learning outcomes in theoretical subjects general traditional methods of written examinations and viva voce.

The universities have enforced CBCS Pattern for B.Ed. programme. The academic year is divided in two semesters. Internal and external exams are conducted in each

semester. Evaluation is done on the basis of the student-teachers performance in core courses as well as practical. Two of the surveyed institutions found practicing Open Book Examination wherein one institution was conducting Open Book Exam for all the core/foundation papers and another institution was conducting only for one foundation paper. The details of this practice have been presented on page_209. Along with exams the B.Ed. curriculum includes Continuous and Comprehensive Evaluation where varied techniques and approaches were adopted for evaluation. The techniques/approaches for internal assessment were Periodical Tests, Preliminary examinations, Assignments, Psychological Test and Experiments, Attendance, Micro Teaching, Unit lesson, Co-curricular Activities, Field work, Book review, Presentations, Seminars, Initiative / Leadership in various activities, Report writing creative work (pictures, drawing and articles), External Assessment included - Annual exam, Annual Lesson, Computer Practical, Competitions of *SAPTDHARA* and others cultural activities.

None of the Teacher Education institutions was found practicing to deal with the CCE practice. Most of the Teacher Educators opined that due to time constraints and lack of permission from school it was not possible for the student-teachers to learn practicing of CCE in schools.

Though the Teacher Education institutions were found covering many aspects of continuous and comprehensive educational evaluation, the actual practical aspects at school were not favourable to learn implementation of CCE. Because, to learn how to write a report according to the regulation of CCE of a particular student in class. Teacher Educators were found to be using interesting interactive strategies like group discussion, doubt clearing sessions, role playing, dramatization of event, dream school work, and using audio-visual aids related to the teaching of different components of theory papers. One of the institutions was found practicing Dream School Work with the aim of exploring the vision of student-teachers about a school. The details of this practice have been presented on page_264.

The innovative ways of teaching learning found to be adopted by one of the surveyed Teacher Education institutions, such as, Balloon Debate and Dialog Mode of Seminar. The details of these practices have been presented on page_201 & 216 respectively.

One of the problems mentioned regarding practice teaching was – Practice Teaching, is done in the Laboratory School of the Training Institution or in a few nearby schools. Often Teacher Education institutions are situated in urban areas. Hence, the student-teachers get trained only in urban situations. Again these schools are generally superior in quality - available resources and intake of students. Thus, student-teachers get lopsided training. Most of the Principals and Teacher Educators opined that the student-teachers need to be trained in a variety of situations i.e. - Urban Schools, Rural Schools and Tribal Schools, and Schools of GSHSEB, CBSE, and International Board so as to have an exposure to varied perspectives. The practice teaching lessons were conducted in various types of schools. The student-teachers faced specific problems in each type of schools and developed abilities to solve them. This type of innovative practice required adjustment in scheduling of practice teaching programmes.

The Teacher Educators expressed that various concepts need to be added in the teacher training Curriculum, like, Virtual classrooms, Constructivist classrooms, Life skills, Multiple Intelligence, and Value Education.

For all round development of the student-teachers, one of the Teacher Education institutions has adopted ‘English Spoken and Personality Development’ compulsory course for the enhancement of English language and personality development, whereas, one institution has adopted an elective paper - English for Specific purposes (ESP). The details of these curricular course practices have been presented on page_251. Another Teacher Education institution was found practicing Reflective Diary writing. In this practice the student-teachers maintained Reflective Diary in which they would write all their reflections, experiences related to the programme during the whole academic year. Special time was given to write the diary in the institution itself. In the exam, student-teachers attempted one paper on Reflective Dairy Writing. The details of this practice have been presented on page_195. Some of the institutions were found conducting special lectures on Code of Conduct, grooming sessions for the student-teachers. These practices aimed at how the code of conduct could in turn be developed by the student-teachers amongst school students. One of the surveyed Teacher Education Institutions was found imparting Seven Habits of Highly Effective people by Stephen Covey among student-teachers by different Teacher Educators. Special lectures were conducted to impart such habits in the

classroom. The purpose of this practice was to develop Life skills among the future teachers. The details of this practice have been presented on page_228. With the aim to develop values among student-teachers one of the institutions found practicing Value Week celebration. The groups of student-teachers demonstrated and propagated specified values during entire week in assembly using various methods and modes, such as, talk, story, power point presentation, song, prayer. The details of this practice have been presented on page_277.

Many Principals and Teacher Educators of the Teacher Education Institutes were of the view that, during practice teaching/block teaching phase writing a report on the delivery of the subject lesson from the school subject by individual student-teachers could help in better comprehension of classroom situations for Teacher Educators. Because, for Teacher Educator it is not possible to observe full 35 minutes lesson as he/she has to observe 2-3 lessons together during the same time period.

Most of the Teacher Educators and Principals were of the view that there is a need to add numbers of lessons since the 40 lessons are not good enough to practice. Due to scarcity of time it was not possible to increase the time phase of practice teaching.

Teacher Educators were also found to be of opinion that the student-teachers need to observe the lessons of school teachers in various subjects or at least in their respective teaching methods, to enhance their understanding of teaching skills.

No specific suggestions were provided by any of the surveyed Teacher Education institutions on B.Ed. Syllabus related policy matters and integration of recommendations provided in policies like, NPE-1986, NCF-2000, NCF-2005 & NCFTE-2009.

The adopted/adapted innovative practices related to various aspects of Teacher Education programmes from all the surveyed Teacher Education institutions have been presented as Innovative Practices in the following chapter.

4.2. Analysis of Objective 2

Objective: To study in-depth the Innovative Practices in selected Secondary Level Teacher Education Institutions of Gujarat State.

Table_6: Innovative Practices in Teacher Education Institutions

Sr. No	<i>PRACTICE</i>	<i>PRACTICING INSTITUTION</i>
1	Constructivist Approach based Lesson Plan	School of Science and Education, Navrachna University, Vadodara
2	Multiple Intelligence based Lesson Plan	The M. S. University of Baroda, Vadodara
3	Life Skills based Lesson Plan	The M. S. University of Baroda, Vadodara
4	Digital Lesson Plan	School of Science and Education, Navrachna University, Vadodara
5	Activity and Value Based Lesson Plan	Anand College of Education, Anand
6	Script Writing	Anand College of Education, Anand
7	Simulated Stage Teaching Practice (SSTP)	Way Made College of Education, VV Nagar
8	Providing International School Teaching Exposure during Practice Teaching Phase	J. G. College of Education, Ahmedabad
9	ICT integrated Teacher Education	<ul style="list-style-type: none"> - Anand College of Education, Anand & - S. D. Sethiya College of Education, Mundra, Kachch - Way Made College of Education, VV Nagar
10	Home Room	<ul style="list-style-type: none"> - The New Progressive College of Teachers, Mahesana - M. B. Patel College of Education, VV Nagar
11	Reflective Diary Writing: Learning and Assessing through Reflection	School of Science and Education, Navrachna University, Vadodara

12	Balloon Debate	Dr. H. R. Gajwani College of Education, Bhuj, Kachch
13	Spark Sessions	Sri Rang Sikshan Mahavidhyalaya, Bilimora
14	Open Book Examination	- M. N. Shukla College of Education, Ahmedabad & - R. H. Patel English Medium B.Ed. College, Gandhinagar
15	Content Enrichment through Participatory Learning	Dr H. R. Gajwani College of Education, Bhuj, Kachch
16	Dialogue Mode of Seminar Instruction	Dr H. R. Gajwani College of Education, Bhuj, Kachch
17	Career Centred Activities	R. H. Patel English Medium B.Ed. College, Gandhinagar
18	Creative Hands	Dr H. R. Gajwani College of Education, Bhuj, Kachch
19	Seven Habits of Life Skills	School of Science and Education, Navrachna University, Vadodara
20	Community Work Participation	I.J. Patel College of Education, Mogri
21	<i>GRAMJEEVAN PADYATRA</i>	Gujarat Vidhyapeeth, Ahmedabad
22	English Spoken & Personality Development (Course)	R.H. Patel English Medium B.Ed. College, Gandhinagar
23	English for Specific Purpose (Course)	Waymade college of Education, VV Nagar
24	Life Skill Education (Course)	I. J. Patel College of Education, Mogri

Innovative Practice - 1: Constructivist Approach based lesson Plan

Preliminary

Constructivism is a psychological theory - based on observation and scientific study- about how people learn. The theory states that people construct their own understanding and knowledge of the world through experience and reflection on those experiences - that when they encounter something new, they want to merge it with their previous ideas and experience. This thinking process may result in a change of what they believe, or discarding the new information as irrelevant. In any case, constructivist theory states that they are active creators of their own knowledge. To create knowledge, they must ask questions, clarify, explore, evaluate, and re-evaluate what they know.

Constructivism is one of the emerging theories of learning which teachers must have a grip on in order to make teaching and learning effective and efficient. This would help them to provide insightful learning experiences to understand new things & about implementing constructivist principles in their classroom.

This has not become regular practice by teachers nor has it become part of Teacher Education curriculum but one of the institutes surveyed during the present study trained student-teachers to plan their lessons using constructivist approach and asked them to implement. The Proforma of the Constructivist lesson plan was prepared by the Teacher Educators of the institute itself.

Objectives of the Practice

- To enhance the professional development of student-teachers
- To provide them insightful learning experiences into the new understandings about implementing constructivist principles in the classroom

Description of the Practice

In the constructivist classroom, students work primarily in groups and learning and knowledge are interactive and dynamic. There is a great focus and emphasis on social and communication skills, as well as collaboration and exchange of ideas. This is contrary to the traditional classroom in which students work primarily alone, learning is achieved through repetition, and the subjects are strictly adhered to and are guided by a textbook. Some activities encouraged in constructivist classrooms are:

Examples of Constructivist Activities

- Experimentation: students individually perform an experiment and then come together as a class to discuss the results.
- Research Projects/Assignments: students research a topic and can present their findings to the class.
- Field trips. This allows students to put the concepts and ideas discussed in class in a real-world context. Field trips would often be followed by class discussions.
- Showing Films/Videos/Clips. These provide visual context and thus bring another sense into the learning experience.
- Classroom Discussions. This technique is used in all of the methods described above. It is one of the most important distinctions of constructivist teaching methods

Table_7: Differences between Traditional & Constructivist Classroom

The Traditional Classroom	The Constructivist Classroom
➤ Begins with parts- expanding to the whole	➤ Begins with the whole - expanding to parts
➤ Strict observes to the fixed curriculum	➤ Focus is on student questions and interests
➤ Textbooks and workbooks are focused	➤ Primary Sources / manipulative materials
➤ Instructor gives and students receive	➤ Learning is interaction - building on what students already know
➤ Teacher assumes directive, authoritative role	➤ Teacher interacts and discusses with the students
➤ Evaluation through testing/correct answers	➤ Evaluation through students works, observations, points of view, tests. Process is as important as product
➤ Knowledge is stagnant	➤ Knowledge is dynamic and changes with experiences
➤ Students work individually	➤ Students work in groups

- The ideas and interests of children drive the learning process.
- Teachers are flexible - they are the facilitator.

- Students construct new understandings using what they already know, and prior knowledge they will construct from new.
- Constructivist approach is child centered, rather than curriculum based.
- Constructivism focuses on knowledge construction, not knowledge reproduction.
- It is a belief that one constructs knowledge from one's experiences.
- Everyone's view of the external world differs from others because of their unique set of experiences.

Role of the Teacher -

In the constructivist classroom, the teacher's role is to prompt and facilitate discussion.

- Teacher guides students by asking questions that lead them to develop their own conclusions on the subject.
- Teachers provide opportunities for students to use active techniques, such as, experimentation and real-world problem solving to create knowledge.
- Teacher provides activities based on the pre existing concepts in students.
- Teachers continuously encourage students to assess how the activity is helping them gain understanding.
- As students question themselves and their strategies, they develop new skills, thus providing them with effective tools to keep learning.
- To provide effective learning environment for facilitating learning of the students.

The teacher's role in a constructivist approach is to understand the students' pre existing conceptions, guide learning activities to address the conceptions, and support students to build on those pre-existing ideas to create new learning. Moreover, teachers have to be more sensitive to children's prior knowledge and processes by which they make sense of phenomena and concepts.

Practice Context and the Need Addressed

Though Teacher Education is an area of great significance in any country, generally, priority is given for professional development of teachers. Considering the need to improve the quality of the Teacher Education programme, new methods of teaching should be incorporated time to time to meet the demands of current time.

In the classroom, a constructivist approach to learning changes our teaching practices to facilitate learners' desires to build on previous knowledge. This means encouraging students to use active techniques (experiments, simulations, real-world problem solving) to create more knowledge, reflect on and talk about what they are learning, and describe their new understanding.

Sources and Resources Required

- Administrative and academic reforms to facilitate change.
- Teacher Educators who are committed and knowledgeable about the process.
- The major forms of learner support comprise print materials and multimedia resources. In developing these materials, team approach can be adopted which involves sharing of academic expertise from different institutions.
- The role of Teacher Educator has to be supportive who guides, facilitates and acts as a facilitator of learning experiences.

Practice Outcome

With constructivist teaching, student-teachers of all the ability levels demonstrated critical thinking in dealing with tasks which were rather demanding and thought provoking. In addition to that, the investigator found that student-teachers showed high task accomplishment attitude and they worked hard to solve problems. Most of the activities that student-teachers designed promoted high-level thinking skills in them. Students were able to think aloud, model various learning and problem solving strategies for helping each other to understand concepts and ideas which were difficult. In the course of these, they developed greater Meta cognitive awareness and positive interdependence among them in which scaffolding of performance was an important aspect since they worked as a group to do a particular exercise or task.

These benefits were not limited to gains in learning and achievement only, but also they were found to have high self-efficacy about chances of becoming successful in performing tasks for they gained independence on how to do that. Self-esteem and confidence were built in the minds of student-teachers as they tried to solve challenging tasks.

The effectiveness of this approach was that student-teachers fully participated in simulated condition wherein they enjoyed all the activities, shared ideas, and actively.

Also they discussed important concepts individually as well as a group to arrive at a mutual understanding of the concept being studied.

It was observed that the student-teachers were active agents in the learning process so as to create confidence in them to learn new concepts.

In the class room situation school students were encouraged to give out any responses without fear or favour and emphasis was on their answer whether it was right or wrong in order to motivate them to attempt any question. In addition to that, there was no jeering, laughing at each other since everybody was in a process of learning new concepts.

Voices of Student-Teachers

The first point was that it was not easy for them to change from the traditional teaching strategy to the constructivist teaching strategy, as they were the product of this traditional approach, which they had practiced and experienced for a long time. There was a bit of unwillingness to adopt this new theory of learning using constructivist teaching strategies. Even the school students were surprised at first to find themselves in a different mode of teaching and learning.

Student-teachers opined that they were eager to do tasks that were assigned to them in groups and showed involvement during the micro teaching phase. They emphasised that giving lot of activities also led to social interaction, by means of sharing of ideas and reflected social behaviour like decision making, dividing task equally, resolving interpersonal conflict, encouraging group mates. Student-teachers expressed that they all felt responsible for solving a problem though it was done by the whole group.

Student-teachers were of the view that constructivist teaching facilitated the information transfer from one individual to another in a friendly way and it gave students confidence and understanding of the topics or ideas being studied.

The investigator observed an exposure given to student-teachers regarding the constructivist strategies, with respect to their teaching methods by Teacher Educators. They opined that Constructivist teaching had enhanced their understanding about various concepts and enabled them to shift their views of teaching from a knowledge giver to that of a facilitator.

They opined that planning for instruction, executing, observing students' activities and reflecting upon the lesson daily was a challenge.

In spite of these challenges, identifying the meaning of the concept constructed by the students, promotion of social interaction, critical thinking, problem solving, participation and motivation made the practice worthwhile.

It was also observed that constructivism made teaching and learning enjoyable for both teacher and the learners. Students were not as passive listeners as they were in the traditional classrooms, but were involved in constructing their own meaning about various concepts.

Some student-teachers had a negative perception about constructivist approach of teaching as they felt led to time wastage. They were worried of not finishing the syllabus before examinations and did not have confidence of performing better during individual tasks as well as in an examination. This was manifested in some students at first, but they changed and began to appreciate it.

Innovativeness of the Practice

It was also a challenge to prepare, execute and reflect on the whole lesson on daily basis. However, it created a shift on the teaching and learning paradigm, such that, each and every lesson was constructivist in nature to add variety to the learning process and make students active at all times.

As learners the student-teachers changed their way of learning. Student-teachers were working harder because they knew that they would learn more if they discovered their own ideas and asked their own questions and thought harder to answer for themselves. In this situation, Teacher Educator encouraged the student-teachers to ask relevant questions in order to make students as active learners. Again, urged them to do more probing and ask effective questions to acquire more consciousness and control over their thinking. Students were actively involved in the lessons and this was by assigning them responsibilities so as to have self-control in performing tasks in a class. Everybody was part and parcel of the work being carried out in the group.

Requirements for Adoption and Adaptation

Today in this 21st century our education system is changing very fast. Quality professional development of student-teachers should be upgraded to compete with the present time, and adaptation of this practice has had significant implications for enhancing quality of the professional development of student-teachers. This

continuous process of gaining new knowledge, refining skills, adopting new methods are essential in enhancing the quality of teachers trained in Teacher Education institutions. To adapt constructivist approach teaching guidance and motivation are essential to make students teacher achieve their goals. Along with that students have to exchange ideas, thoughts and knowledge thus gained will help to focus their attention on the development of listening and speaking skills and to promote thought and connections between students' ideas and the concept.

Proforma for the Constructivist Lesson Plan

Name:

Class/grade:

Topic:

Date:

LEARNING EXPERIENCE - I

Aim:

To enable the learners to arouse prior knowledge of learners associated with the concept of....

To enable the learners to establish real life context of the concept of....

To enable the learners to explore the relation of the concept of....with other subjects and understand the focus of the particular subjects

(A) Group Discussion/ Reading of Case

Material required:

Description of the activity:

Students are to discuss in small groups on the topic.....

Teacher will make groups of.....Students.

Teacher will allot time for the discussion (3 minutes, 5 minutes)

Teacher will give specific task to each group (this group will list the problems and solutions)

Teacher will monitor as the groups discuss.

Teacher will ask each group to present / list out the points that they identified and note on the Chalk Board.

Teacher will ask the other groups to modify or add points and give an overall picture of the discussion

(B) Questioning

Have you read/discussed this topic in any other subject? What will be the focus in this subject?

(C) Questioning

What do we already know about this concept? What else do you think we should know? A concept map may be drawn on the chalk Board

Today we shall learn about....

LEARNING EXPERIENCE - II

Aim:

To enable the learners to establish the connection between.... and....

To enable the learners to explore the process of...

To enable the learners to arrive at the meaning of....

(A) Reading the information by learners

Material required:

Description of the activity

Teacher will provide the learners with the information /data / map / story / anecdote / newspaper clipping

Teacher will instruct learners about the time to be taken for reading

Teacher will instruct learners about the purpose of the reading the particular information to enable the learners to get a frame of reference

Questioning by teacher

Why does this happen?

How is this related to this?

How is this connected to that?

Why is it like this?

(Avoid what, when, where questions)

Consolidation by the Teacher

So it is.....

.....

(B) Observation of Demonstration

Material required:

Description of activity

Teacher will conduct the experiment of

LEARNING EXPERIENCE - III

Aim:

Reading the information by learners

Material required:

Questioning by teacher

...

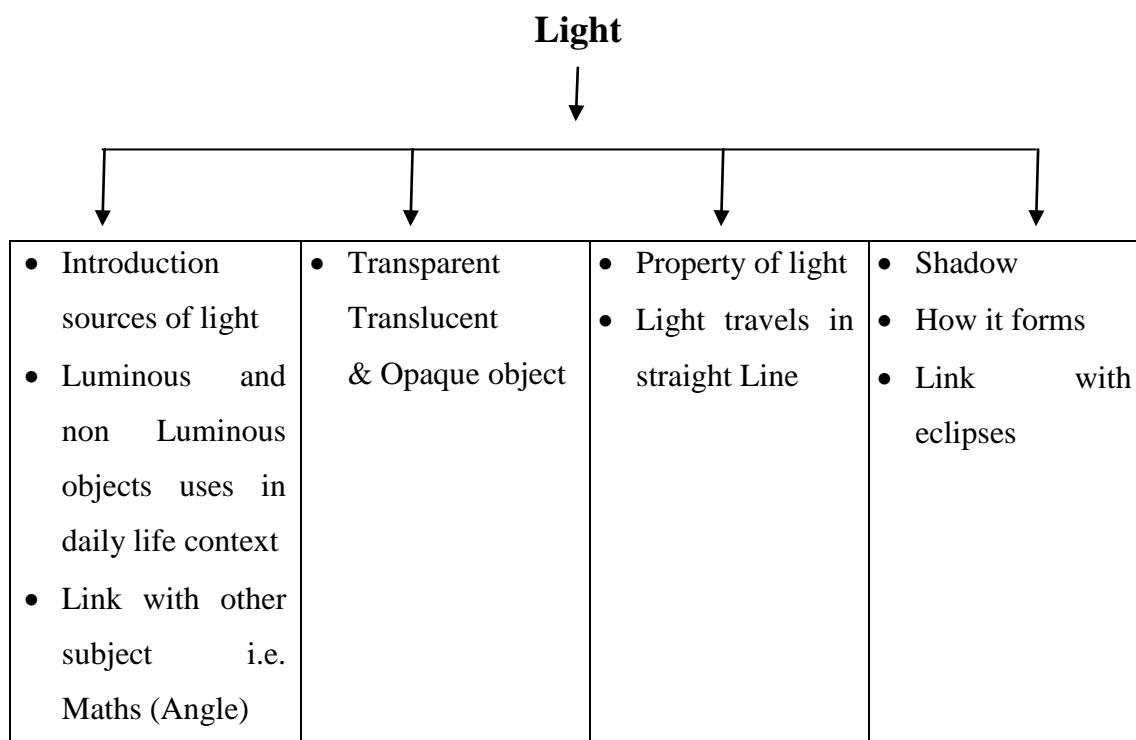
Evidence of Constructivist Approach based Lesson plan

Topic: Light

Subject: Science

Standard: VII

Date: 9-10-2013



Learning Experience - 1:

Aim: To enable the learner to arouse their prior knowledge of light and understand the difference between transparent, translucent and opaque object

Material Required: Plastic polythene, paper sheet, card board, one sided colour paper, tracing paper, hankie, & a candle for each group

Group Activity – (5 Students in each group)

Teacher starts the class by showing some pictures of different sources of light and asks the student to identify the concept or topic of today's learning. The students will guess on the basis of some common features in different pictures. Then teacher write the topic on black board and start the actual teaching.

Teacher will ask certain questions to arouse the answers for sources of light, Luminous & Non Luminous object. After that the teacher divides the group in groups. At the same time teacher will instruct the students on material which is given to them. The students have to identify through which substance (object) they can see clearly,

cannot see clearly and are unable to see. Accordingly they will categorise it under transparent, translucent and opaque object.

Once they complete the activity they will tally their answer with other groups and clear doubts if any.

Observation Table filled by the Students		
Transparent Object	Translucent Object	Opaque Object
1. Transparent Object: Object that allows most of the light to pass through them. Other things are visible through such objects, e.g., water. 2. Translucent Object: Objects that allow only a part of the light to pass through them, e.g., wax. 3. Opaque Object: Objects that do not allow light to pass through them are called Opaque Objects.		

Consolidation: After the discussion and activity teacher comes to know that students understand the difference between transparent, translucent and opaque objects.

Learning Experience – 2

Aim: to enable the learner to understand that “the light travels in a straight line”

Material required: (candle, straight hollow tube, bent hollow tube) for each group.

Group Activity – (5 Students each)

Teacher will distribute the material to each group and instruct them about the task. The group of students will have to observe the light through straight hollow tube and then with bent hollow tube, so that they understand the light property of travelling in a straight line. The students will note down their observation.

- Are they able to see the flame of candle with straight hollow tube?
- Are they able to see the flame of candle with the bent hollow tube? Why?

The students will tally their observation with other groups.

Consolidation: After this activity the teacher comes to know understanding of the students about light travelling in a straight line and when it cannot pass through the object it turns its path.

Learning Experience – 3

Aim: To enable learner to understand the shadow, and its forms.

Material Required: Torch, colourful toy, and observation sheet.

Group Activity – (5 Students in each group)

Once the students complete their activities the teacher will consolidate.

Steps to be Follow during the activity	
1.	Light torch and place it in a dark room such that it's light fall on a wall.
2.	Put your hand between the torch and wall, you will be able to see the shadow of your hand on the wall.
3.	Make different shapes and observe the shape of shadows. Are they similar?
4.	Now hold bright coloured toy in between the torch and the wall. What is the colour of shadow?
5.	Bring torch near toy. Is the size of toy increased?
6.	Move away the torch from the toy. Is the size of toy decreased?

Observation Table			
Sr. No	Particular	Result of Shadow	
1	Torch - Shadow –Wall	Yes	No
2	Torch - Different shapes of hand – Wall	Yes	No
3	Opaque object shows dark shadow	Yes	No
4	Transparent object shows light shadow	Yes	No
5	Bring torch near the toy. Is the size of toy increased?	Yes	No
6	Move away the torch from the toy. Is the size of toy decreased?	Yes	No

Consolidation: Here teacher will link all the three experiences together by explaining that if they take opaque object and if light fall on that, at that time it will create dark shadow. As you know light travels in straight line so when there is opaque object in its path it cannot pass through it, so it passes from its sides and lights the surrounding area while shape of the object remains black/dark which is called shadow.

There are some of the factors to be considered which are necessary for shadow creation. The room should be dark and the position of object must be between torch and screen (wall) where you want to shadow. If there is light in the room that is more than torch light then it will decrease the effect of forming shadow. This is the reason why we could not see the stars in the day timings. And the same shadow formation occurs when Sun, Moon and Earth come in a line and solar eclipses as well as lunar eclipse occur. The angle at which light falls on the object is also important to create images. So, it is linked with Maths subject also.

Plate_3: Performance of Activity in Constructivist Classroom



Innovative Practice_2: Multiple Intelligence based Lesson Plan

Preliminary

Multiple Intelligence based lesson plan is aimed to make student-teachers totally involve in the teaching learning process and to enhance the use of alternate teaching techniques supplementing the traditional lecture method. This shift from traditional to innovative methods would make teaching an interactive exercise. One of the objectives is to motivate all type of students for self learning when the topic is discussed in the class. Thus, Multiple Intelligence based lesson plan ensures participatory approach of teaching.

These students are targetted to participate in teaching process rather than being passive. With such an aim Multiple Intelligence lesson plans are made.

The Multiple Intelligence theory is based on the psychological principle that human beings have different kinds of intellectual strength and that these strengths play an important role in learning. The Multiple Intelligence draws its basis from the ability of individuals to understand the same thing differently and to represent these through different means.

MI theory is a way of thinking about how children learn and how best to teach them. This helps the teachers to extend the boundaries of traditional curriculum, considering different talents and abilities of the students. Such an effort by the teacher in a school setting puts greater emphasis on the enhancement of variety of skills necessary to succeed in today's world.

Objective of the Practice

- To provide hands on experiences to the students
- To give training to teach in classroom using different modes which would arouse various intellectual capacities of the students
- To explore the implications of the theory of Multiple Intelligence for schools

Description of the Practice

Figure_3: Symbols Depicting Multiple Intelligences



1. Linguistic intelligence is the capacity to use language, one's local language, and other languages, to express a concept. Poets really specialise in linguistic intelligence, but any kind of writer, orator, speaker, lawyer, or a person for whom language is an important stock in trade highlights linguistic intelligence.
2. Logical intelligence is based on the intellectual capacity to use cause and effect relationship to logically connect some ideas and concepts, manipulate some numbers, quantities and operations.
3. Visual spatial intelligence refers to the ability to represent the spatial world internally in one's mind. The way a sailor or aeroplane pilot navigates the large spatial world or the way a chess player or sculptor represents a more circumscribed spatial world may be some of the examples. Spatial intelligence can be used in the arts and in the sciences. Certain sciences like anatomy and topology utilize the spatial intelligence of an individual.
4. Bodily kinaesthetic intelligence is the capacity to use the whole body or parts of body, hand, fingers, and arms. The body parts can be used to solve a problem, make some models, make some symbols, i.e., representations. The most evident examples are people in athletics or the performing arts, particularly dance or acting.

5. Musical intelligence is the capacity to think in terms of music, ability to hear patterns, recognise them, remember them, and perhaps manipulate them. People who have a strong musical intelligence don't just remember music easily - they can't get it out of their minds, its so omnipresent.
6. Interpersonal intelligence is the ability to understand other people's words and intentions. It is an ability that is needed by a teacher, clinician, salesperson, and politician. A student might adopt any of the professions from the ones mentioned and may be some other also, the interpersonal sphere should be enhanced.
7. Intrapersonal intelligence refers to having an understanding of oneself, one's abilities, behaviour and the things one is attracted to. We are drawn to people who have a good understanding of themselves because those people are grounded. They not only know their abilities and inabilities but also know the sources from which to seek help.
8. Naturalist intelligence designates the human ability to discriminate among living things (plants, animals) as well as sensitivity to other features of the natural world (clouds, rock configurations). This ability was valuable in our evolutionary past as hunters, gatherers, and farmers; it continues to be important while botanical and food related topics. Most of the consumer society exploits the naturalist intelligences, to discriminate among cars, sneakers, kinds of makeup, and other goods. The kind of pattern recognition valued in social sciences and physical sciences may also draw upon naturalist intelligence.

Table_8: The Eight Multiple Intelligences

Children who are Strongly	Think	Love	Need
Linguistic	in words	Reading, writing, telling stories, playing word games, etc.	Books, types, writing tools paper diaries, dialogues, discussion, debate stories
Logical-Mathematical	By reasoning	Experimenting, questioning, figuring out puzzles, calculating, etc	Things to explore and think about, science materials, manipulative, trips to the planetarium and science museum

Spatial	In Images and pictures	Designing, drawing, visualizing, doodling, etc.	Art, video, movies, slides, imagination games, mazes, puzzles, illustrated books, trips to art museums
Bodily-Kinesthetic	Through somatic sensations	Dancing, running, jumping, building, touching, gesturing, etc.	role play, drama, movement, things to build, sports and physical games, tactile experiences, hands - on learning
Musical	Via rhythms and melodies	Singing, whistling, humming, tapping feet and hands, listening, etc	Sing-along time, trips to concerts, music playing at home and school, musical instruments
Interpersonal	By bouncing ideas off other people	Leading, organizing, relating, manipulating, mediating, partying, etc.	Group games, social gatherings, community events, clubs, mentors/ apprenticeships
Intrapersonal	Deeply inside themselves	Setting goals, meditating, dreaming, being quiet	Time alone, self-paced projects, introspection (self evaluation)
Naturalist	Ability to discriminate among living, among non-living, and living & non-living	Treating Nature as a source	To recognize and internalize the Universe

- (Armstrong, 2009)

The Multiple Intelligence theory suggests that no one set of teaching strategies will work best for all students at all times. All children have different proclivities in the seven intelligences, so any particular strategy is likely to be successful with several students, and yet, not for others. Because of these individual differences among students, teachers are best advised to use a broad range of teaching strategies with their students. As long as instructors shift their intelligence emphasis from presentation to presentation, there will always be a time during the period or day when a student has his or her own highly developed intelligence/s actively involved in learning.

Key points in MI theory

- Each person possesses all seven intelligences – MI theory is not a “type theory” for determining that one intelligence is best. It is a theory of cognitive functioning, it proposes that each person has capacities in all seven intelligences.
- Most people can develop each intelligence to an adequate level of competency – although an individual may bewail his deficiencies in a given area and consider his problems innate and intractable, Gardner suggests that virtually everyone has the capacity to develop all seven intelligences to a reasonably high level of performance if given the appropriate encouragement, enrichment and instruction.
- Intelligences usually work together in complex ways - Gardner points out that each intelligence as described above is actually a “fiction”; that is no intelligence exists by itself in life (except perhaps in very rare instances and brain-injured individuals) intelligences are always interacting with each other.
- There are many ways to be intelligent within each category - there is no standard set of attributes that one must have to be considered intelligent in a specific area. Consequently, a person may not be able to read, yet be highly linguistic because he/she can tell a terrific story or has a large, oral vocabulary. Similarly, a person may be quite awkward on the playing field, yet possess superior bodily-kinaesthetic intelligence when she weaves a carpet or creates an inlaid chess table. MI theory emphasizes the rich diversity of ways in which people show their gifts within intelligences as well as between intelligences.

Practice Context and the Need Addressed

Traditionally, new topics may be introduced through a lecture-like introduction, a chapter overview, or demonstration of a rule or principle. Gardner suggests several other ways to introduce new material, based on different intelligences, for example, through narrative, numerical, aesthetic, and hands-on points of entry. A narrative entry point would involve introducing a new concept by telling a story or narrative: introducing evolution by telling the story of a single branch on an evolutionary tree or describing the concept of democracy by telling the story of its beginning in ancient Greece (Gardner, 1993). Both of these examples draw on narrative modes of

understanding. A topic of study might also be introduced in a numerical or quantitative manner. For instance, students could be introduced to a unit on evolution by analyzing a map that shows the number of different species existing in different geographic areas or they could be introduced to a unit on Mayan culture by considering population shifts over time.

Sources & Resources Required

- Dedicated Teacher Educators who are committed and knowledgeable about Multiple Intelligence.
- Requirement of well-experienced experts to give orientation for the Teacher Educators and student-teachers.
- There is a need to provide for extra class and support from the institution and local bodies for successful implementation.
- Additional learning resources.

Voices of Student-Teachers

- The student-teacher has to incorporate minimum 4 MI at the time of making lesson plan. In this context they faced scarcity of material resourced & time.
- Student-Teachers clearly indicated that the chalk and talk method was largely inadequate to sustain the interest of the students.
- Student-teachers had to take two continuous periods for their Multiple Intelligences classes, which were denied by school authorities.
- Lack of Multiple Intelligences lesson plan format was one of the problems communicated while a few were happy to have the flexibility to design their own lesson plan for Multiple Intelligence classes.
- Resources were scarce.

Practice Outcome

Student-teachers were better able to accommodate students learning needs in a better way by incorporating Multiple Intelligence in the classroom. During the practice teaching phase in schools, students' engagement was more in learning through MI activities. A MI classroom also leads students to greater student achievement.

It helps teachers to cater to academic needs, intelligence strengths, and weaknesses of their students. According to Gardner (1983) once an individuals identify their

intelligence strengths, they can "draw upon this knowledge to enhance that person's educational opportunities and options" (p.10). The learning method that works best for one student may not work for another due to their differing intelligence strengths. Therefore, if a teacher uses Gardner's multiple entries approach to target several intelligences in one lesson, students will get more exposure to the content and more students will be reached (Gardner, 2006; Heacox, 2002). Thus, students' learning needs will be addressed well.

MI also helps teachers create more personalized and diverse lessons to accommodate their students' learning needs, which leads to more opportunities for students to learn the expected material (Wilson, 1998). This also allows teachers to "provide concrete opportunities to develop their students' intellectual potential" (Campbell & Campbell, 1999, p. 11). For example, a teacher may have a set of repeated addition or subtraction problems on a worksheet. A MI approach would allow the spatial learner to draw a picture that illustrates the problems; the linguistic learner to write out the steps needed to solve the problems; and the bodily-kinaesthetic learner to role play or use manipulative to solve the problems. Thus, students use their own strengths to ultimately come up with the same answer, but doing so in a way that accommodates their own individual strengths and abilities. When students have the opportunity to learn through their strengths, not only will their academic needs be met, but they will also be more engaged in their learning (Dickinson, 1996). Armstrong (2009) stated, "The MI teacher provides hands-on experiences, whether they involve getting students up and moving about, passing an artifact around to bring to life the material studied, or having students build something tangible to reveal their understanding" (p.57). Armstrong suggested actively engage students by helping them relate learning to real life.

Campbell and Campbell (1999) found that when teachers looked to their students' strengths instead of weaknesses, both teachers and students had higher expectations and this led to greater student achievement. As a result of higher expectations and the "positive and explicit belief in student intelligence, teaching practices change and, ultimately, so does student achievement" (p.97). Implementation of Multiple Intelligence in the classroom increased student achievement in many classrooms.

Innovativeness of the practice

MI theory is a way of thinking about how children learn and how best to teach them. This helps the teachers to extend the boundaries of traditional curriculum, considering different talents and abilities of the students. Such an effort by the teacher in a school setting puts greater emphasis on the enhancement of variety of skills necessary to succeed in today's world.

Requirements for Adoption and Adaptation

The essentials of a multiple intelligence perspective for education:

For teachers

- Present material to be learnt in authentic environments.
- Encourage all children to develop competencies across all intelligences.
- Utilise mentoring and apprenticeships with experts in the area of development.
- Develop an interdisciplinary curriculum to facilitate the interconnections between the intelligences.
- Encourage the cooperation of parents and community in students' education.
- Ground Education in the cultural institutions and practices of our society.

Implications for assessment

- Integrate curriculum and assessment.
- Be flexible in assessment practices to allow students to demonstrate their various competencies.
- Develop authentic assessments.
- Develop alternative assessments such as portfolios and work samples.
- Develop intrinsically interesting assessments.

Set fair assessments that do not depend on other competencies as intermediaries. But for this type of lesson planning we need to have teachers and administrators, believe in this and really want to do it. They should be enthusiastic enough to search for resources, seek help, ready to shift from teacher-centered to learner-centered methods of teaching. Thus they should be ready to accept child as centre of learning.

➤ Examples of MI Activities

Following are a few evidences of Integration of Multiple Intelligences in Classroom

1. Multiple Intelligence activity conducted in Biology

Class : XI-A

Topic : Animal Morphology and Anatomy-II (Frog)

MI used : Picture puzzle

MI focused: linguistic, logical, kinesthetic, visual, intrapersonal, interpersonal.

Description of the Activity:

After completion of the unit students were divided into 3 groups and they were given pictures of the organs involved in the frog's male reproductive system, female reproductive system and metamorphosis of frog.

Students identified the organs, discussed in the group and arranged them in a logical sequence, pasted and labeled each organ and name of the system.

Plate_4: Students Performing MI Activity in Biology Class



Justification of the Intelligences:

With this activity, they have utilized the following intelligences.

- Logical: Students enhanced the ability to perceive logical patterns and understand the functions of different organs and their systems.
- Intrapersonal: Students enhanced their ability to act on the basis of self knowledge, behavior and could make decision based on their perception about the accurate picture.
- Interpersonal: Students utilized their ability to perceive and made distinction in moods, intentions, temperaments, of their group members.
- Visual/Spatial: Sensitization about the relationship between the organs and their functions was observed while they worked in groups to complete the activity.
- Linguistic: They labelled all the organs & the process like metamorphosis, vas efferentia, urinogenital duct etc. They enhanced their linguistic ability of biological terms.

2. Multiple Intelligence Activity in Mathematics

Class : 9

Topic : Surface Area and Volume of the Given Objects

MI Focused: Mathematical, Intrapersonal, Interpersonal, Visual and Kinesthetic.

Description of the Activity:

Students were taught about how to find out surface areas of cube, cuboid, cylinder and cone. They already know all the formulas and were aware about these 3-dimensional objects.

So, the teacher decided to give them real objects (cube, cuboid, cylinder and cones). She divided the whole class into 8 different groups and gave each group a set of objects to find out their surface areas.

Plate_5: Students Performing MI Activity in Mathematic Class



Justification of the Intelligences

- Students were given real 3-D objects to find out the areas on their own. It was to address their visual intelligence.
- Students applied the formulas of surface areas of different objects which enhanced their mathematical intelligence.
- Task was allotted in groups to enhance their interpersonal intelligence.
- Students did calculations which enhanced their intrapersonal abilities & mathematical abilities.
- Students worked with the 3-D objects employing their bodily/kinesthetic intelligence.

Innovative Practice_3: Life Skills based Lesson Plan

Preliminary

Life skills have been defined as “the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life” (WHO, 1997). ‘Adaptive’ refers to the person’s flexible approach and adjustment ability in different circumstances. ‘Positive behaviour’ implies to the optimistic approach of an individual in difficult situations, and the ability to find solutions.

Objectives of the Practice

- To provide opportunities to the student-teachers to incorporate social, thinking and emotional skills into a teaching strategy or in a lesson plan.
- To mobilise students’ behaviour development approach through adequate delivery of content addressing knowledge, values and attitudes enhanced Life Skills.
- To provide opportunities for students to participate effectively in a curriculum unit of study.

Description of the Practice

In the surveyed institute the Teacher Educators have divided Life Skills into three basic categories i.e. Social skills, Thinking skills and Emotional skills which were further divided into sub categories as follows.

1. Social Skills

- i. Communication: Communication Skill is an ability to exchange information between two or more persons in such a way that it develops understanding.
- ii. Adjustment: Adjustment is the process of finding and adopting modes of behavior suitable to the environment.
- iii. Interpersonal Relationship: Interpersonal Relationship Skill is an ability to maintain good relationship with the members of the society.

Indicators of Social Skills

- Verbal and Non-Verbal communication
- Good listener

- Expresses emotions, and develops responding ability
- Adjustment ability and attitude
- Assertive behavior
- Understand needs of others and have capacity to help needy people
- Maintains interpersonal relationship
- Exhibits Compassion
- Exhibits respect in behaviour & words for others
- Expresses own thoughts in the group

Related Activities

Languages:

- ☐ Language: The teacher narrates a story and tells students to discuss in small group about their experiences and describe their role in such a situation.
- ☐ Role plays – Students are instructed to model social situations at home, and in shopping.
- ☐ Puppets – To model social situations through puppet plays and stories.
- ☐ Circle time – Gives opportunities to develop the ability to listen to other children's points of view, even if they have difficulty in understanding them.
- ☐ Reactions – Asks students to choose a reaction, from a choice of three, to a particular social situation. Then talk about the possible consequences of each reaction.
- ☐ Speech bubbles – using well-known story characters. Read for the students a scene from the story and then ask them to write, in the speech bubble, what the character might say at the end of the scene.
- ☐ Just a minute – Ask students to talk about a particular subject for one minute. This may be used to revise the topic already taught.
- ☐ Social stories – Social stories and experiences are narrated to the students to help them with certain social situations that they find difficult.
- ☐ Comic strip conversations – comic strips/pictures are shown to students which would have some message such that students are directed to make their choices and cope up with social situations.

Economics/ Social science:

- ☐ Target Market and address meeting consumer needs and determining what those needs are through research.

- ☐ How much of each product will customers be willing to buy? Market Research Survey.
- ☐ Writing the survey questions can be a class activity where you may ask them what their fellow students or the teachers and staff at their school may buy at a selling event.
- ☐ Once your students bring back the completed surveys, tabulate them and discuss the results with the class as to what they should buy.
- ☐ This activity provides focus on the buying types and makes the selling event more successful.

Science:

- ☐ Water Electricity – Teacher instructs students to collect data on usage of renewable and non renewable sources of energy from their house. Students will come out with suggestive measures/ tips and create awareness in their society. (Survey)
- ☐ Food Chain - Passing pen in the group and analyze the process.

Social Science:

- ☐ Different types of transaction – Teacher can give different situation in the group and students decide how they would react to such situation (with reference to which type of transaction)
- ☐ Pollution - Write poem, slogan, prepare posters and display on school notice board.
- ☐ Market – Create Market Situation in class

2. Thinking Skills

- i. Self Awareness: Self Awareness Skill is an ability to understand oneself, i.e., strengths, weaknesses, desires and dislikes.
- ii. Critical Thinking: Critical Thinking is an ability to draw sound conclusion on facts and observations, carefully analyze and evaluate the information.
- iii. Decision Making: Decision Making Skill is an ability to follow the process of choosing appropriate alternative course of action.
- iv. Creativity: Creative Thinking Skill is an ability of bringing about something new and valuable more than break away from old pattern.
- v. Problem Solving: Problem Solving Skill is an ability to use problem solving procedure to resolve a problem in efficient manner.

Indicators of Thinking Skills

- Manifests understanding of own weaknesses and strengths
- Exhibits a behaviour to reduce one's weaknesses
- Exhibits creativity
- Asks questions, identifies problem and analyzes it
- Makes alternative solution to solve the problem
- Implements the right decision with a responsible attitude
- Speaks or works for innovative ideas
- Exhibit higher level thinking ability

Related Activities

- ☐ Nine dot game

Make the students join nine points without lifting their hand and without overwriting

- ☐ Renewable and Non-Renewable Sources of Energy: Suggest measures to solve the problem of shortage of water in the coming years
- ☐ Develop Profile of people who have inspired you and are your role models
- ☐ If I were...

Skills focused: Self Awareness, Creative thinking, Critical thinking

- If I were to re-live a day it would be_____
- If I were to spend a day it would be with_____
- If I were the Head of Department of Education_____
- ☐ Believe that your future can be better
- Recently I felt better when I_____
- To feel better I_____
- Things you might change about yourself to make your future better
- ☐ My Experiences
- How five senses help to observe something beautiful and absorb it
- Close your eyes and take yourself to

(As a teacher provide chart consisting of several pictures)

- ☐ My Name is
- The student will try to think of a self-descriptive word or phrase that matches each letter of their name.

- Students are to write a descriptive paragraph or story about themselves, using the words or phrases they have selected or any others they can think of as they are writing their paragraphs.
- The students are to share their writing selections with the class.

Example

Vejanty: My name is Vejanty. I am an intelligent young girl with a magnificent mind. My friends like me because I am a very versatile person. I am an achiever throughout. I am brave and gutsy. I am not afraid while trying new things and go to new and different places.

- Survey of usage of unit by different houses and then suggest measures to reduce the usage
- In your society what measures you will suggest to create environment awareness?
- Best out of waste to reduce plastic bags and plastic waste.
- Give a newspaper to students and ask them to suggest various ways of its use.

Related Activities

Science:

- ☐ Solar Water Heater – Teacher can assign tasks to students to carry out market survey regarding different technology of solar water heater and then analyze and suggest economical viable system.

Social Science:

- ☐ Insurance – Discuss case in the group
Budget – Critically analyzing past years budget such that the students are able to give reason for inflation and difference in actual budget and proposed budget.
- ☐ What are the reasons for increase/decrease in petrol/diesel price in India and world over?

Language

- ☐ Collect patriotic poem and analyze the poem from the point of view of values / moral for their life.

3. Emotional Skills

- i. Coping with Emotions: Coping with Emotions Skill means an ability to manage own emotions and understand others' emotions
- ii. Empathy: Empathy Skill means an ability to put oneself into the state of another person.
- iii. Determination: Determination belongs to the will, and permanence of affections and principles; the former prevents us to the dictations from yielding, and the latter from fluctuating into the threats.
- iv. Coping with Stress: Coping with Stress Skill is an ability to recognize source of stress in own life and cope up by behaving appropriately in the situation.

Indicators of Emotional Skills

- Controls emotions, Mental stress and anger
- Expression of emotions effectively
- Exhibits understanding of others' emotions
- Shows self independence in the task assigned
- Shows ability to express truth confidently
- Tries to identify own stressor and effects of stress

Related Activities

Science:

- ☐ Life of different scientists can be studied. (e.g. Einstein Determination)
- ☐ Stephen Hawking (Life)
- ☐ Teacher can ask student to write their positive points and negative points and what they should do to minimize their negative points and become self aware about their strengths.
- ☐ Ask students to plant some seeds and help the plant grow. Keep a journal recording details about the plant growth. How does caring for the plant make you feel? Discuss how caring for a plant is similar to and different from caring for people?

Social Science:

- ☐ 2nd world war - Teacher can show movies related to 2nd world war and ask students to reflect on the movie.

- ☐ Reflection on earthquake affected area/ flood affected area/drought area/slum area can be shared among the teacher and students.
- ☐ Contribution of freedom fighters – Teacher can assign the task to the students to prepare skit on freedom fighters and their contribution.
- ☐ Visit an old age home and interact with the residents there and report the feelings arisen.

Language:

- ☐ Hiroshima - Discuss and reflect about situation of animals and humans
Teacher can show the pictures and ask them to write a story on their own.
Teacher can give the pictures to the students and ask them to select pictures related to their behavior and make a story.
- ☐ Teacher can show the different pictures about the culture and religions and ask them to place those pictures as per their logic and give justification for that.
- ☐ Teacher can ask students to make a note of at least one friend/ neighbor belonging to different religion, which they know. Then, comment on the way they have developed relations.
- ☐ Story telling: Effects of Global Warming on Jelly fish and Shark
- ☐ Collecting Articles : Effects of Global Warming
- ☐ Poster preparation
- ☐ Role play

[The activities enlisted above to develop Thinking skills, Social skills and Emotional skills, were listed by the Teacher Educators of the institute after a brainstorming session amongst them]

Practice Context & the Need Addressed

The effort was to develop learners who are equipped with accurate, objective and scientific knowledge, values, attitudes, and skills. These will help young learners to make their decisions, solve problems, think creatively & critically, communicate effectively, build healthy relationships, empathise with others, cope up with challenges and manage their lives in a healthy and productive manner. It includes enhancement of psychosocial competencies and interpersonal skills that help an individual to make decisions, solve his/her problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others, and manage their lives in a healthy and productive manner.

Sources & Resources Required

- Dedicated Teacher Educators who are committed and knowledgeable about Life skills
- Requirement of well-experienced expert to give orientation for the Teacher Educators and student-teachers
- There is a need to provide for extra class and support from the institution and local bodies for successful implementation.
- Additional learning resources.

Voices of Student-Teachers

The student-teachers expressed that they learnt these skills through active learning and participation in school practice teaching programme. Further they have had healthy discussions with their peer student-teacher at school to inculcate these skills. They followed up with the main resource team for feedback, discussions and training material.

The student-teachers were of the view that there must be an orientation of demonstration of life skill based lesson so that they can have proper understanding for the implementation. Further they opined that a lesson plan should be given, so that it is easier for them to write in a given format.

Practice Outcome

Following were a few evidences

Activity -1

Subject : Science

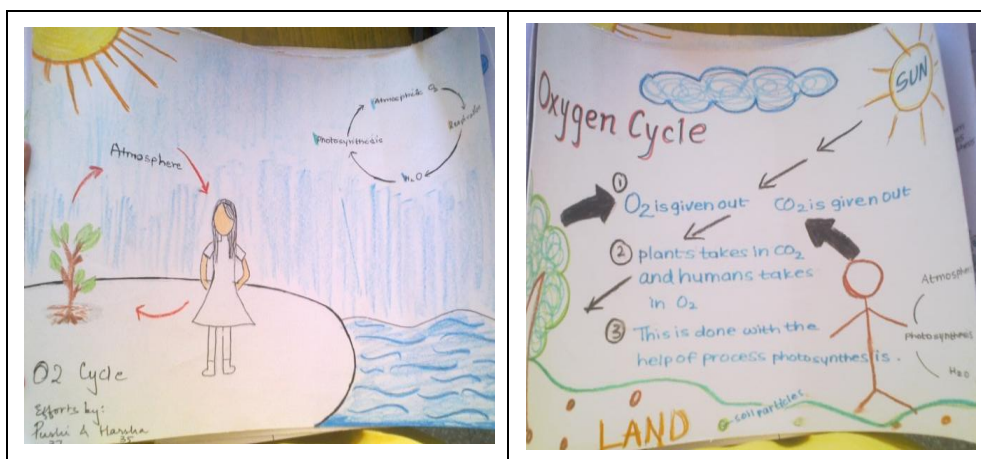
Topic : Water and Oxygen Cycle

Activity Name: : Poster Making on Water and Oxygen Cycle

Life Skill Focused : Creativity, Critical Thinking, Self Awareness

- Explanations of Biotic and Abiotic were done.
- In addition to it, water cycle and oxygen cycle were also taught.
- The students were asked to make posters on Oxygen cycle and Water cycle, in pairs.
- The students were given chart papers, sketch pens and crayons.
- They were individually observed and guided, wherever required.

Plate_6: Life Skill Activity done by School Students in Science



Activity - 2

Subject : Mathematics (STD – 9, Vedic Maths)

Topic : Multiplication methods

Activity name : Play-way (Treasure Hunt)

Life skills mainly focused: Adjustment, Interpersonal Relationship, Communication, Self Awareness, Critical Thinking, Decision Making, Creativity, Determination and Problem Solving

Description of the Activity

- First teacher has to teach multiplication method of Vedic mathematics. Total 3-4 methods can be taught in the class with 2-3 examples of each method. (students has to memories the method)
- Then divide students into 3-4 groups each group 10-15 students. Make one student as representative from each group.
- Representative will come and take one chit in which the clue is written. (1st clue chit)
- He/she will go back in group with that clue chit. Students of that group will discuss and find the treasure place from that clue.
- Representative will go at that place and bring 2nd sums chit, which has questions (each method one sum) of multiplication sums that they have to solve according to Vedic method. (These chits are to be kept before the period starts).
- As soon as he will back with the 2nd sum chit the next group representative will take the 1st clue chit from the teacher and do the same process mentioned above. (find the treasure place and collect the 2nd sum chit)

- As the next group representative enters the class with 2nd sum chit the previous group has to complete the sums. (Here another teacher can observe their method)
- Marks have to be given according to the sums solved by the correct method only
(Note: Keep 1-1 teacher in each group if possible.)

The following Instructions should be given by the Teacher

- Teacher will teach Vedic Mathematics method of multiplication and instruct the students to memorise the method. Teacher can also give the idea to students that they can divide the work between group members to remember a particular method.
- Teacher will divide the students into 2-3 groups as per the class strength.
- Teacher will ask each group to select their group representative who will collect the 1st clue chit from teacher and will go and bring the 2nd sum chit.
- Teacher will explain about the game and its rule. (as mentioned above)
- Teacher will instruct that the marks will be given only if the correct method is used.
- Teacher will explain about the score. For each correct method the group will get 1 mark. (Means if all method's sums are right than full marks. 3 or 4 i.e. initially how many methods are taught by teacher). And also minus marking for wrong method. Teacher will also instruct the student to observe discipline.

Table_9: Treasure Hunt for Enhancing Life Skill

Treasure clue chits	Treasure Place / Person	Sum chits
Books books books every where books. But be careful your chit is with the head of all these books	Library	1) 31 x 22 2) 67 x 45 3) 99 x 84
Ice, cat, snack, store, net, pen, snail. Take all the second letters and join. Find the chit in place where is the cool cool drink.	Canteen (fridge)	1) 11 x 42 2) 58 x 34 3) 88 x 91
To solve this little fix liquid, solids, gases mix go to the room where some reactions take place.	Chemistry Lab	1) 41 x 21 2) 67 x 24 3) 83 x 92
Go and get your chit who is the captain, not of your home but of your school also who handle your floor	House captain and 1 st floor in charge (Girls of 11 th Commerce)	1) 13 x 22 2) 46 x 47 3) 96 x 87

I like the tall, beautiful, fair lady of your school who has long hair and gives a very sweet smile.	Naina Madam (Supervisor)	1) 23 x 12 2) 37 x 68 3) 85 x 94
Go and get your chit from where you bring the key to start the new topic.	Server Room	1) 21 x 14 2) 45 x 38 3) 95 x 82

Figure_4: Display of different Multiplication Methods

Method 1 : Multiplying numbers not close to one hundred

- Write down your numbers sitting on top of each other
- Multiply the numbers in the ones place and put the product directly under the ones.
- Cross multiply by taking the top number's tens digit multiplied by the bottom numbers ones place. And vice versa
- Add the two products and place the answer to the left of the ones place's answer.
- Multiply the numbers in the tens place and place the answer to the left of the previous step's answer.

$$\begin{array}{r} 21 \\ \times 23 \\ \hline 63 \\ 420 \\ \hline 483 \end{array}$$

Method 2 : Numbers not close to one hundred where products are 10 or more

- Write your problem down in the same manner as below.
- Multiply the numbers in the ones place and put the product underneath the problem as shown. In this case, 6*4 is greater than 10 (24).
- Cross Multiply the ones with the opposing tens and add them together. In this case, (2*4) + (6*1) = 14. Write 14 underneath 24 one space to the left (ending on the tens column)
- Multiply the tens. 2*1 = 2. Place this product another space to the left, in the hundreds column as shown.
- Add the three rows as you would in a normal multiplication method. The sum of the three rows you created equal 364, our answer.

$$\begin{array}{r} 14 \\ \times 26 \\ \hline 24 \\ 14 \\ 2 \\ \hline 364 \end{array}$$

Method 3 : Numbers closer to one hundred

- Write down your numbers sitting on top of each other
- Subtract both numbers and place the differences beside the numbers you subtracted.
- Multiply the two differences you got in the previous step and place the product in the first two places (ones and tens)
- Subtract one of the two factors by the opposite number's answer in step two. Place the answer to the left of the number you got in step three.

$$\begin{array}{r} 87 \\ \times 98 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 87 \\ \times 98 \\ \hline 8526 \end{array}$$

Innovativeness of the practice

The practice helps an individual to promote overall wellbeing and competence in adolescent as they face the realities of life. It is the beginning of good judgement and understanding which focuses on behaviour change and further it enable individuals to translate knowledge, attitude and values into actual abilities i.e. what to do and how to do.

Requirements for Adoption and Adaptation

The method used in teaching of Life Skills builds upon the social learning theory and on what we know of how young people learn from their environment; from observing how others behave and what consequences arise from behaviour.

It involves the process of Participatory learning using 4 basic components i.e. practical activities, feedback and reflections, consolidation and reinforcement and practical application to day to day life challenges.

Innovative Practice_4: Digital Lesson Plan

Preliminary

The training course emphasizes the use of teaching strategies and practices which integrate technology into the existing school curriculum. The digital lesson plan aims to enhance teacher productivity through the creation of technology integrated learning activities. The technology used may be internet and web tools as information resource and communication too.

In one of the institutes surveyed by the investigator preparing and implementation of Digital lesson plan was practiced by adapting Intel model.

Objectives of the Practice

- To equip student-teachers with the knowledge, understanding and skills about when and how to use ICT in their teaching
- To enable student-teachers to make sound judgements about when and how to integrate ICT in the classroom
- To enable student-teachers to develop confidence and skills to make use of ICT for teaching their subjects
- To provide teachers access to the national resource data bank: an ever-growing pool of teaching materials.

Description of the Practice

The institute had special practice sessions to give hands on experience to student-teachers with respect to technological skills.

Practice:

The following stepwise procedure was followed.

1. The Teacher Educator stated the objectives of the task.
2. The Teacher Educator demonstrated the skills at normal pace, with explanations
3. The Teacher Educator systematically demonstrated the skills and then asked students to follow
4. The student-teachers practiced the skills on their own, and conducted self-assessment and peer evaluation.

5. The student-teachers practiced the new tasks/skills under the teacher's guidance and were also given feedback on their task.

The ICT training course offers the following: competence in the use of relevant technologies; competence to apply these technologies appropriately to teaching; competence in the development of resource materials and content for teaching; and competence in working collaboratively to improve the quality of ICT-enriched resources.

The training is composed of 10 adaptable modules focusing on the development of a unit portfolio containing student learning activities with special emphasis on the inquiry approach, project based learning and authentic assessment. The training can be offered to both in-service and pre-service teachers. Student-teachers are taught how, when and where to incorporate technology tools and resources to achieve maximum student learning.

As beginning teachers in the school system, they must cope with a wide number of demands while they are also expected to integrate ICT while teaching.

Development of e-instructional materials was also practiced in the institute with an aim to enable student-teachers to create lesson for 5 weeks using moodle learning management system. The lessons were continuously assessed by experts in the field of development of teaching materials.

According to the Teacher Educators of the institute this practice is bound to develop the following skills in student-teacher required for 21st century.

- Technology and Digital Literacy: The ability to access, to manage, to analyze, to integrate, to evaluate and to create information in a variety of forms and contexts.
- Effective Communication: Ability to Understand, manage and create effective oral, written, and multimedia communication in a variety of contexts.
- Critical Thinking: Exercise sound reasoning in understanding and making complex choices, understanding the interconnections among systems.
- Problem Solving: Ability to frame, analyze, and solve problems.
- Collaboration: Demonstrating teamwork and leadership; adapting to varied roles and responsibilities.

The applications which were taught to the student-teachers are as follows.

I. Scheming and Lesson planning/ Use of word processing skills to

- a) Prepare Schemes of work and lesson plans
- b) Design work cards and mini tests
- c) Prepare exercises and tests those are easy to adjust for future use
- d) Design class merit certificates

II. Knowledge expansion and Research for lesson delivery and Use of Internet skills

- a) Gives teachers a resource base to expand their knowledge in the subject they teach.
- b) Enables teachers to do quality academic research on the topics they want to teach.
- c) Allows them to get activities, different lesson approaches from millions of teachers all over the world.
- d) Creates a platform to get pictures and videos about any industry, place of interest and almost anything covered in their subject content.
 - (i) To get notes and recent findings on subject matter.
 - (ii) Allow teachers to answer difficult questions that students may ask.

III. Lesson delivery Using Multi Media skills

- a) Design power point presentations that make it easy to show pictures, graphics, videos, during lesson delivery.
- b) Reduce the labour of drawing on chalkboards or making charts, but presenting precisely and easily using visual aids for Educational Institution.
- c) Presentations are prepared in advance and projected systematically, economising time normally lost during the lesson.

IV. Mark Records, Mark Schedule and Consultation Day Data Use of Spread Sheets

- a) To enable easier recording of marks, processing of totals, class positions, and fast preparation of Mark sheets.
- b) Parents' feedback comments and graphical presentation of students' progress.
- c) Easier record keeping that enables almost instant access to records of any child over years.

Practice Context and the Need Addressed

Integration of ICTs in the teaching and learning environment has become an inevitable, irreversible reality in the 21st century. As schools are adopting technology integration and e-learning, it becomes an absolute necessity that teachers be digitally literate and have to know how about the use of technology in a classroom. Appropriate teacher professional development is therefore necessary. However the training should be a fusion of digital literacy skills and related teaching methodologies, otherwise ICT integration in the classroom can be a nightmare.

The Student Engagement with One to One is an e-learning course that helps the teachers for improving student engagement in a one to one learning environment. It is offered in conjunction with Intel architecture-based purchases.

The e-learning, emphasises on learner centered approach of teaching, ensuring 1-1 interaction. But designing instructional strategies & evaluation strategies requires technological environment and trained teachers to use and manage these e-resources.

Sources & Resources Required

- Teacher Educators who are committed and have expertise with the ICT.
- Academic reforms to facilitate change.
- The resources required for training the student-teachers in digital teaching technology include Computers, Internet, Camera, Audio Recorders, LCD Projectors, Storage Devices, Internet Connectivity, Master Resource Persons to train the student-teachers and Lab attendant.

Voices of Student-Teachers

The student-teachers expressed that the application of ICT alongwith lectures improved the achievements of students in their classes. They also expressed that they could use a variety of teaching materials which supported efficient instruction within the fixed periods allotted to them by the schools. The findings also indicated that teachers used a variety of teaching materials for more efficient instruction and spent less time lecturing in class.

The student-teachers expressed that use of ICT made them aware about the ease that it provides during teaching learning process. They opined that the ICT based program enhanced their ICT skills and provided a great help in lesson planning. They also expressed that ICT based teaching helped to seek the attention of the students in the

classroom. The interactive aspect of ICT based classes enabled them to guide the students in a better way, voiced the student-teachers.

The findings of the course implementation indicated that students were formed to have comprehension and competency in designing, constructing, and innovating with ICT. They were able to search for appropriate learning resources and to develop ICT-supported instructional materials. The students reported a high level of satisfaction in using the model.

Practice Outcome

During the survey, it was observed that the student-teachers could easily use ICT in searching resources, designing, developing and constructing instructional materials. Evaluations conducted by student-teachers on online communication logs and interactions with instructors on the website indicated that student-teachers were confident in expressing their viewpoints. The student-teachers also provided continuous advice and feedback to their class mates.

This instructional model has been extended to courses focusing on practice, team work and use of ICT for education in the other institutes also. Student-teachers expressed their satisfaction as they saved money on making teaching materials, and got opportunity for self study. To support this ICT teaching, the institute is providing facilities such as computer and high speed internet for instructors and students along with appropriate computer training courses.

Student-teachers searched for information by themselves and after that discussed in group their work and challenges faced. Group members communicated through the Internet. The instructor advised and answered questions of student-teachers, and assessed their learning performance.

Innovativeness of the Practice

This practice enabled the student-teachers to prepare the lesson plans digitally, which is the need of the hour. The student-teacher learnt what aspects of the content put in the lesson plan (provided by Intel), how to make online evaluation sheets for students. Unlike normal lesson plan, the digital lesson plan had detailed descriptors like Unit objectives, Unit summary, domain specific objectives and detailed procedure. Apart from this the student-teachers were also taught to make digital news letter.

Requirements for Adoption and Adaptation

For training the student-teachers to effectively use ICT they should be taught the fundamentals of ICT. Then they should be provided opportunities to implement those skills in the simulated and real classrooms. Since they may be new to such practices, the Teacher Educators should supervise these implementation processes and feedback for appropriate application of these skills. There should be some compulsory tasks to be done by student-teachers using ICT in the teaching classes, which develop a readiness mindset for its use of the student-teachers.

[A sample Digital lesson plan prepared by one of the student-teacher is given in CD]

Innovative Practice_5: Activity & Value based lesson Plan

Preliminary

The practice is aimed at incorporation of varieties of activities, examples, and supportive information in the lesson plan. This practice focuses on the principle of learning by doing. Hence the student-teachers are asked to plan activities during the preparation of lesson plan.

Objective of the Practice

The objective of this practice is to make the student teachers aware of the particular content and the values related to the content. The awareness about the values and activities are to be reflected in the lesson plans and are to be implemented when the student-teacher goes to teach in school.

- To think and choose the appropriate activities with which learners can relate the topic to be taught or to make activities for the concepts for which the students raise their doubts.
- To provide activities that helps the learners to apply their learning in new situations or contexts beyond the lesson and connect it to their own lives.

Description of the Practice

One of the surveyed institutions, instructed the student-teachers to attach the following table in the front of each subject lesson plan. The student-teachers were asked to integrate the mentioned components in the teaching learning process.

The institute provides an atmosphere to the student-teachers to introduce a variety of activities in lesson plans which allow learners to work in groups, in pairs, or independently to practice the skills, concepts, and information presented. The following were the examples.

Subject: Gujarati:**STD: 9****Lesson: કન્યા વિદાય****Table_10: Tabulated Lesson Plan for Activity and Value based Class**

Content Analysis <i>Prasang/Ghatna</i>	Value <i>/Bhaav/Rasaa</i>	Related Activity	Related Examples	Giving Extra Information
સમીક્ષાજના કન્યાની વિદાય	વિદાયનો ભાવ	લગ્ન નો પસંગ	સંદર્ભપંક્તિ: કન્યાની વિદાય “ઢોલીડા ઢો ઢૂંક્યા લાડી ચાલી આપુરે ઘેર જઈએ.”	
કન્યા જતાં સૂનકાર વ્યાપવો	કરુણ રસ	પ્રવૃત્તિ : આપેલાં બે ચિત્રોના આધારે કન્યાવિદાયની તુલના કરો.	દીકરી તો પારકી થાપણ કહેવાય	કણ્વ ઋષિ – દીકરીની વિદાય- રુદ્ધ કરતાં સહુ- પ્રકૃતિ પણ રડતી હાવી.

Subject: English**STD: 7****Lessons: A Dog Named Duke**

Content Analysis <i>Prasang/Ghatna</i>	Value <i>/Bhaav/Rasaa</i>	Related Activity	Related Examples	Giving Extra Information
Concept of dog loyalty and faithfulness in times of stress and problems	Value Of Loyalty	Small Debate of 5 minutes (2 groups) - Is man a man's best friend or enemy? Said by (George Graham Vest) - Who is a man's best friend?	Puss in Boots, story of Cat & a miller.	Government law for not to change the place of dogs
		Teacher will arouse students' prior knowledge of qualities of dogs.		

The orientation was given by showing the examples for different subjects.

After preparing the lesson plan the student-teachers would be focussing more on these written components and after checking the suggestions would further revise and accordingly plan the lesson.

By keeping in mind and creating the activity at the beginning of the lesson, during the lesson or at the end of the lesson (depending on the content) the student-teacher drew a clear objective for the whole lesson and a roadmap to get there. After that they select materials and activities that will best prepare students to successfully complete the evaluation activity in the lesson. The process is repeated for each learning objective. Thus, this cyclical process is repeated for each learning objective.

Practice Context and the Need Addressed

As we know that Activity based learning is an active teaching learning methodology. It is more useful for the school children. Any Teacher can make teaching more interesting by doing this method. A lot of activities should be done in our schools.

In the Teacher Education framing activities in lesson plans brings activeness and builds confidence of the student-teachers.

So to make the fruitful exercises in the classroom the student teachers have to arrange several activities to develop the student's knowledge in many ways. If the future teachers are well trained with this practice they would be an effective teacher.

Sources & Resources Required

- Time and commitment of the faculty.
- Charts, Audio-visual Aids, Computer.
- Teacher Educators who are knowledgeable to guide the student-teachers

Voices of Student-Teachers

- This practice developed the specific focus among student-teachers before framing the lesson plans and it lead to successful teaching-learning process.
- The student-teachers expressed that they were provided ideas by the teacher-educators when they were unable to search the activity for some topic.
- The practice made them use activities more effectively in the teaching and learning environment.
- It was also observed that this practice made teaching and learning enjoyable for both teacher and the learners. Student-teachers could come out of their

passiveness and were involved in constructing activities for better understanding of various concepts.

Practice Outcome

This practice provides a framework for instruction, and it addresses the principle of learning by doing. This planning establishes a road map for instructors of what has been taught and what needs to be taught. It allows the student teachers to focus on one objective at a time and communicate with the learners what they will learn in each lesson. Because lessons incorporate ongoing assessments that determine how well learners understand concepts and skills, instructors are able to make mid-course changes in instructional procedures or provide additional support to learners. Additionally, the practice and application components of the lesson helps learners use the new skills and knowledge in educational and other settings, thus promoting generalization and relevance.

Innovativeness of the Practice

In this practice, the student-teachers plan activities on each concept which they teach in a Unit or chapter. It is unlike other practices where only for one or two concepts the activities are framed.

Requirements for Adoption and Adaptation

To adopt such a practice requires a clear understanding about its purpose, but needs an atmosphere which accentuates favourable conditions for learning through the encouragement which should be given by the Teacher Educator in the institute. This practice also requires mental readiness of student-teachers to actively contribute in incorporating these components in lesson plan and take ownership of their own ideas.

Innovative Practice_6: Script Writing

Preliminary

Writing a script for lesson plans involves working out what you are going to say to explain a new idea or concept to the students. More experienced teachers often do this planning without being conscious of it, although if any person is new to teaching, then it can be daunting to stand in front of students without a plan. Proper planning of lesson not only improves the pace and quality of our lessons, but also helps oneself to explain ideas more efficiently, which will help both who will be teaching and the students.

Objective of the Practice

The main aim of the practice is to try out the possibility and feasibility of total teacher involvement in delivering the lesson plan which provides for individualized learning routes, personalised goal priorities towards lesson. Evolving such a process would provide better insights into the substantive enrichment of transaction of lesson plan.

The purpose of this practice is to define explicit instruction, provide a rationale for explicit instruction, describe how student-teachers can employ the components of explicit instruction and explain how its systematic use can result in increased academic achievement and decreased undesirable behaviour of students.

Description of the Practice

Scripting of the lesson plan can be helpful to write exactly what an individual plan to say when teaching a lesson. The student-teacher won't end up actually reading script, but the act of writing allows student-teachers to figure out the best way of explaining information. This can be an effective strategy when teaching difficult content; sometimes they don't know what's going to be confusing until they start trying to explain it.

Step One: It goes without saying that one's objectives should clearly state what the students are to say or do rather than employing ambiguous terms such as know, and understand. Additionally, it is obvious that teachers themselves must be able to realize the complex outcomes specified in task objectives.

Step Two: Once one has good objectives the next step in developing an explicit lesson plan that involves identifying the step-by-step progression for successfully completing the academic task.

Instructions to be followed by the student-teachers

1. Write down your goals for teaching the lesson. If you are planning a series of lessons, then writing down the overall goal and working out smaller goals for each lesson will help you plan a script for each session. If you have 10 lessons, then aim to pace your lessons evenly, with each lesson providing one tenth of the progress. This pace will help you to balance each lesson.
2. Write on a new piece of paper for each lesson. Write the date of the lesson, the number it is in the sequence and the specific goal at the top. You can now plan the script on this lesson plan, and you will be able to see at a glance the purpose of the lesson. This method of preparation will keep you focused.
3. Divide the lesson into sections. The first section will consist of you outlining the problem and explaining how you will solve it (asking questions, checking prior knowledge, probing, and introduction). The second section will consist of the students discussing the problem and doing group work to reinforce your message (explanation, problem solving through activity, black board work). The third section will involve you leading class work and answering any questions. (Analysis of specific objective). All these mentioned steps may vary from different types of content and would be based on types of lesson plan.
4. Write the script for the first section, which is the only bit which requires you to plan heavily in advance. Plan the progression of the teaching, which will allow you to explain the problem and the new problem which is being solved. Lead your students gradually through the process, and they will be able to learn it more easily.
5. Practice what you are going to say. You should be able to estimate how long it will take and cut it down or lengthen it accordingly. If your session is one hour long, the first section should last roughly 20 to 30 minutes. Once you have planned a few lessons, you will be more aware of the right length of script to prepare, although in the initial stages practice is best.

Guided Practice -

In this practice for each step the student-teacher provides clear instruction and explanation, and models the step in order to achieve the objectives of the lesson i.e. introduction, asking questions, explanation, activities, showing pictures, demonstrations, and giving examples, giving extra information.

Practice Context & the Need Addressed

In Teacher Education Institutions, during lesson planning, student-teachers are making complex activity specified in an objective delineating into subcomponent behaviors that are placed within a sequential order. The key is to ensure that each subcomponent identifies an overt action that the students must perform. For example, simply list, in order, the first thing to do, the second until the complex action stated in the objective is completed. It is a straightforward process but novices often make predictable mistakes. Usually, the most common mistakes include skipping steps, not specifying an overt action at each step, and not having enough steps.

Well planned scripts have the potential to increase student-teachers achievement, increase their confidence, decrease student behaviour problems, and make the teaching experience more enjoyable and rewarding. Regardless of format selected, student-teachers must make a commitment to plan adequately for instruction. Certainly, it is possible to over-plan. Writing a Script for a lesson that details virtually every word the student-teacher might say is an example of unnecessary planning. But the problem tends to be that student-teachers under-plan their lessons, not over-plan. The institute owes their students the best possible instruction that they can provide, and this only occurs when they have a plan.

Planning and implementing explicit instructional lessons are important for teacher accountability and student achievement. Student-teachers often over the course of the year engage in a variety of routinised schedules and activities. Frequently these routines drive the structure of the day regardless of whether student-teachers are actively learning new knowledge and skills. Explicit instruction is simply highly structured student-teacher routine. However, one can choose to develop his/her own explicit instructional lessons by scripting.

Developing one's own "scripted" lessons is a straightforward task that practicing educators (student-teachers) can do by themselves, and has the added benefit that one

can apply this powerful instructional tool with virtually all course content, and with all levels of students.

Sources & Resources Required

- Teacher Educators who are committed and knowledgeable to direct the student-teachers for the Script Writing.
- Academic reforms to facilitate the change.
- A good Management of Time in Macro Planning
- Orientation for the Teacher Educators and student-teachers

Voices of Student-Teachers

Most of the student-teachers voiced that scripting lessons was time-consuming, but in my teaching, it helped them to be better organized and more confident in front of their students.

For each step the student-teacher provided clear instruction and explanation, and models the steps in order to provide guided practice to students. During the group and individual practice opportunities the teacher initially guides--using prompts through the steps (and later through activities composed of multiple steps) and fades this assistance as the student acquires mastery of the content. The steps for guided practice are model, probe, and then check.

In essence, the student-teacher would plan a scripted lesson for acquisition of knowledge and skills where there are definite steps to complete the academic task. Student-teachers can prepare scripted lessons that reflect advanced levels of learning.

New lessons begin by gaining student attention, revisiting pertinent skills and knowledge previously taught. This step is often referred to as review. It allows teachers to carry out several teaching functions, such as, focusing student attention on the task, probing student understanding of content, providing review opportunities for students, and providing opportunities for corrective feedback or positive feedback to students.

Practice Outcome

When teachers systematically use explicit instructional lessons, then there are several outcomes. First, student-teachers spend more time actively engaged with their subject matter which increases their achievement. Finally, because students respond

successfully at such high levels, there are opportunities for their teachers to attend positively to their correct academic and social responses.

In addition to the benefits previously noted, systematic use of effective instructional practices also can decrease misbehaviour problems in the classroom. It was found that much of the misbehaviour exhibited by students could be controlled through negative reinforcement.

Specifically, when a lesson is beyond the skill level of students, or is presented in a boring or passive way, many students act out to effectively stop the lesson, at least for a while, to escape not being able to follow the presentation. In numerous studies, when teachers employed effective instructional tactics the students' rate of misbehaviour decreased even though such responses were not directly targeted. Thus, it may be concluded that when instruction is structured so that students respond correctly at high rates, not only will students' achievement increase, but those misbehaviours that are maintained by negative reinforcement will decrease measurably.

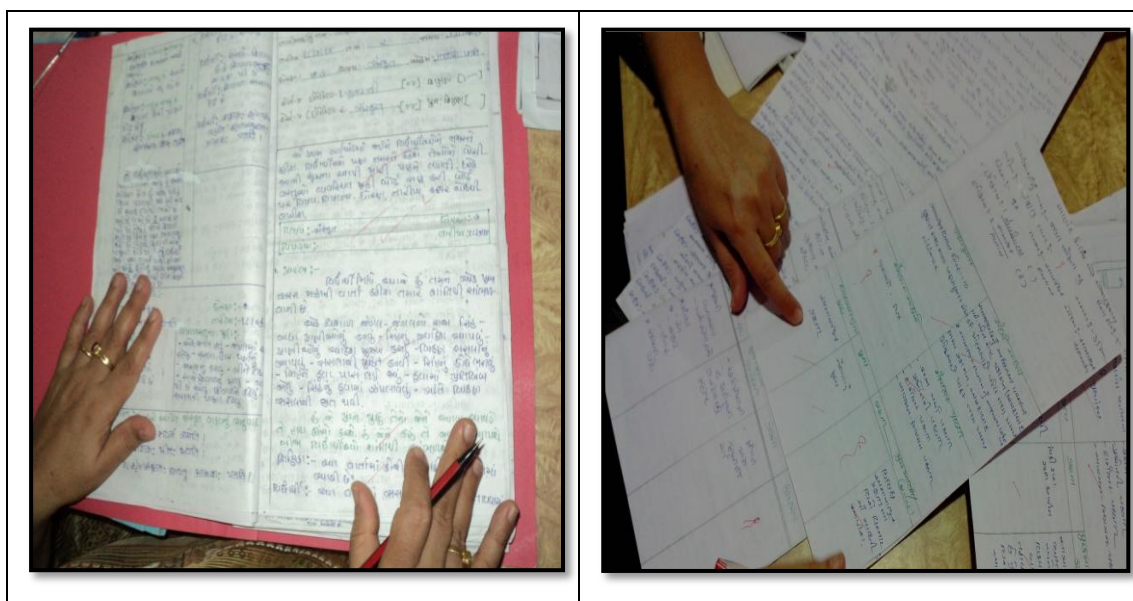
Innovativeness of the Practice

However, one can choose to develop his/her own explicit instructional lessons by scripting. Developing one's own scripted lessons is a straightforward task that practicing educators can do by themselves, and has the added benefit that one can apply this powerful instructional tool with virtually all course content, and with all levels of students.

Requirements for Adoption and Adaptation

Developing good scripting requires time and thought. Student-teachers spend a great deal of time, however, once it is developed, they may be used over and over, as long as the teacher updates the content appropriately or modifies the learning activities to meet the needs of the diverse learners that may be in their courses. Despite the fact that, for this practice the student-teacher as well as Teacher Educators require hard work. Faculty should be available to direct the student-teachers.

Plate_7: Teacher Educator Evaluating Script with respect to Lesson Plan



[An illustrive Lesson Plan & Scripted Lesson Plan are given in Appendix_XII]

Innovative Practice_7: Simulated Stage Teaching Practice (SSTP)

Preliminary

The Simulated Stage Teaching Practice aimed at making the student-teachers familiar with the different stages of lesson plan and thereby practising various teaching skills to make their classroom teaching more effective. The major objective of SSTP is to make student-teachers understand the difference between the stages of lesson plans, their importance and comprehending the effective usage of various teaching skills through different stages of lesson plan, i.e., Introduction, Explanation, Activity and Evaluation to use such these in classroom teaching effectively.

Objective of the Practice practise

To provide an opportunity to the student-teachers to practice the teaching skills in an integrated manner

Description of the Practice

In the Simulated Stage Teaching Practice student-teachers deliver their lessons in front of a group of students along with a supervisor in the institution itself. The time duration for each session is 8-10 minutes and importance is given to effective delivery of each stage along with enhancing and developing various teaching skills.

A single topic is given to 4 student-teachers in the group to be performed by using different mentioned skills. At the same time the other 3 students will be playing the role of school students (simulated condition) by keeping in mind the skills and its techniques.

Table_11: Differential role of Student-Teachers in SSTP Class

Role of Student Teacher Phase wise	Student Teacher 1	Student Teacher 2	Student Teacher 3	Student Teacher 4	Time allowed
Phases					
Introduction Phase	Task Performer	Observer	Observer	Observer	8-10 Minutes
Explanation Phase	Observer	Task	Observer	Observer	8-10

		Performer			Minutes
Activity Phase	Observer	Observer	Task Performer	Observer	8-10 Minutes
Evaluation Phase	Observer	Observer	Observer	Task Performer	8-10 Minutes

Role of Student Teacher Phase wise Phases	Student Teacher 1	Student Teacher 2	Student Teacher 3	Student Teacher 4	Time allowed
Introduction Phase	Observer	Task Performer	Observer	Observer	8-10 Minutes
Explanation Phase	Observer	Observer	Task Performer	Observer	8-10 Minutes
Activity Phase	Observer	Observer	Observer	Task Performer	8-10 Minutes
Evaluation Phase	Task Performer	Observer	Observer	Observer	8-10 Minutes

The table shows the rotation among the student teachers during the SSTP phase. It depicts that each student teacher in a group of four will get an opportunity to execute each phase of SSTP in his or her way and thus the change in the sequence is also observed. This also helps the other group members to learn from the mistakes of his /her peer during a specific phase.

In the second stage the topic would be different wherein the student-teachers who already practiced the given part of lesson, for them plan would be different. (lesson would be the same) for example,

Same way stage-3 and stage-4 would be followed by giving them different topics for practicing other teaching skills.

For each method a group of four student-teachers was constituted. The purpose for selecting the same method group was to give them clear idea and hands on experience about the skills to be used in a particular topic.

Practice Context and the Need Addressed

One of the major benefits of stage simulations is that the student-teachers create dynamic interactions that are not predictable simply based on the facts. In the Teacher training institutions, this provides opportunities for student-teachers to practice the necessary skills while observing the lessons.

Faculty can use a large number of single-stage simulations in a course, providing multiple opportunities for student-teachers to enact different roles and focus on different given topics.

In planning the simulations, the surveyed institution started by considering their teaching objectives. Stage simulations can be particularly helpful in focusing student-teacher's attention on particular aspects of the process.

Sources & Resources Required

- Time and willingness of the faculty
- A good management

Voices of Student-Teachers

The student-teachers were of the view that they performed the given skills by applying their knowledge which they had acquired during the specific subject and presented well. They acknowledged the importance of positive reinforcement and of creating a favourable environment for learning by Simulated Stage Teaching Practice. Most of the student-teachers said that they found practice teaching very interesting and they enjoyed their school teaching because they were able to apply all the skills which they had learned during simulated environment.

Practice Outcome

Stage simulations make the practice easier for student-teachers to get into their roles, enable them to deal with varieties of situations, focus on specific stages in a process, see the connections between various stages, and generally have a more realistic experience. The multi-stage simulations take more time and might involve more complex logistics.

Innovativeness of the Practice

It helps in developing awareness in teaching of various concepts in the same methods group of student-teachers. There is more than one observer of the same method student-teachers and hence more than one aspect along with the different kinds of content gets covered by passing through four stages. This practice helps the student-teachers to widen their thinking to practice various skills of teaching together in a single lesson.

Requirements for Adoption and Adaptation

Simulations can be useful in teaching student-teachers about the difficulties that a teacher experiences and how to address them. In contrast to lectures and class discussion, simulations require students to enact the role of a teacher as well as a student for their peers. It requires students to get into an important role and apply relevant knowledge and skills.

The present state of Teacher Education in the most of the institutions is focussing on integration of different skills in a single lesson even in simulation. But for many student-teachers practicing this would have not been possible to integrate each skill appropriately. The student-teachers learn to plan collaboratively and understand that skills cannot be compartmentalised stage wise. In fact they use same skills in all the stages but differently. They also understand that each stage requires planning. Slowly it would lead to integration in a better way.

Innovative Practice_8: Providing International School Teaching Exposure during Practice Teaching Phase

Preliminary

The main purpose of providing practice teaching phase in international schools is to expose the student-teachers to the various teaching methodologies used in international schools. It is also aimed at the purpose of widening student-teachers thought for acquiring skills to teach in an International school.

Objective of the Practice

With respect to the professional gain of the student-teachers as secondary and higher secondary school teachers, the training programme is to -

- Provide the students with the necessary academic and educational insight and practical training.

Description of the Practice

A better hope for developing teaching competency is offered by an international school practice experience for prospective teachers.

Each student-teacher is sent for practice teaching, to an international school for two days.

On the first day the student-teachers are asked to observe the teaching styles, pedagogy, level of the school students and types of learning experiences provided in the school.

On the second day the student-teachers conduct one lesson in each of their teaching method. The lessons given by the student-teachers are observed by the Teacher Educator and by the school teachers.

Practice Context & the Need Addressed

The present school education system is governed by different types of curricula, both, national and international. Thus, the Teacher Education institutes should also incorporate some components, so that, the student-teacher is aware about the various skills required to teach in such schools.

International school practice teaching experiences are particularly valuable because they offer authentic opportunities to the student-teachers to evaluate their own understanding of the world, their practices, and to understand the students' level. It would be helpful for future teachers to initiate genuine intercultural learning.

International school teaching experience widens the horizon of student-teachers, as they recognize the possibilities for change in their own teaching situations. Such an international learning helps the student-teachers to realise the changes needed in their skills to adapt to such schools.

Sources and Resources Required

- There is a need to provide for extra class and support from the institution and local bodies for successful implementation.
- Additional learning resources.
- A good Management system for getting the permission from the International schools for practice teaching.

Voices of Student-Teachers

The student-teacher responses revealed that they got good learning experiences at the international schools. They expressed that they could learn skills to deal with the students and prepare the content before teaching a topic. Further, they expressed the behavioural difference between International Board Students and State Board Students.

Student-Teachers expressed their concern regarding scarcity of time to complete the activities in the class and the extra time that they had to spend after the regular classes for planning these activities.

Student-teachers expressed that two days in the school helped them to think about the teaching learning process with a broader perspective.

Practice Outcome

The intent of Teacher Education is to prepare the teachers for multiple perspectives. The exposure to the International Schools has provided an opportunity to the student-teachers to tune to conditions which the global society demands.

Innovativeness of the Practice

The practice is providing an opportunity to the student-teachers to observe the teaching styles, strategies, pedagogy, level of the school students and types of learning experiences provided in the international school. Further, it provides them hands on experiences to take lessons in their two methods. Such an exposure helped student-teachers to build their capacity for the enhancement of teaching skills.

Requirements for Adoption and Adaptation

If we want our pre-service teachers to take advantage of international opportunities, we have to incorporate the experience into the education curriculum, making such experiences an add-in, not an add-on, to teacher training.

To meet this demand, the Teacher Educators have to provide them conceptual frameworks for international school culture learning which supports individual processes of cultural understanding before, during and after their international practicum experiences, and also provide sufficient methodologies for learning and teaching as teachers in their classrooms. During their international practicum experience, upcoming teachers will be able to apply these theories and understandings to make sense of and reflect on the challenges and opportunities of teaching in the particular school.

Innovative Practice_9: ICT Integrated Teacher Education

Preliminary

The main aim of introducing technology in Teacher Education is to develop and promote openness for new thinking in an atmosphere of innovation through introduction of methods that are interactive, non-threatening and self paced - and move away from mechanical text-based, chalk and talk methods in the B.Ed. curriculum. Integrating ICT into Teacher Education is also necessary for bridging the digital divide between Government and private teachers, rich-poor, urban-rural, by providing opportunities to effectively use technology to further educational objectives. It also requires the provision of technical support for developing content and orientation of Teacher Educators and student-teachers.

Objective of the Practice

The main purpose of the practice was to enhance ICT integration into the B.Ed. curriculum transaction. More specifically, the attempt was to merge the ICT component relevantly into the practice of instructional designing and its transactions. If educational institutions have to ensure that their student-teachers leave the institutions as confident individuals capable of using new technology creatively and productively then their teachers should have the competence to integrate the emerging technologies and the digital content with all their operations. So, to shift the focus of curriculum from computer literacy to applying ICT in Teacher Education tasks;

- To create relationships between active learning and active teaching
- To develop an appreciation and an understanding of the potential of technology among student-teachers and Teacher Educators
- To design ICT integrated curricular activities for student-teachers
- To make the student-teachers learn the benefits of technology in the classroom
- To learn to motivate students with technology
- To integrate, the steps of accessing, reviewing, creating and sharing e- resources in the formal curriculum

Description of the Practice

Student-teachers need to learn that how to access the worldwide web for resources, including principles governing quality, authenticity of resourcesa and rules of fair use.

They need to learn how to integrate ICT in their teaching learning process, how to use varied digital methods & educational softwares to create learning recourses, to equip the student-teachers the Teacher Educators should be first trained for such ICT based teaching.

In this practice Teacher Educators are encouraged to integrate the emerging technologies and the digital content with all their curriculum transaction process.

Use of Email and Website -

The first semester student-teachers were asked to submit their email Ids and mobile numbers (mandatory) numbers. An Email chain of all the student-teachers was created. All mails were passed to all the student-teachers through this chain in the shortest possible time. The Teacher Educator or the class representative forwards mails to all the student-teachers.

Practice Context & the Need Addressed

ICT integration in institutions is being perceived as an essential and thus it is growing exponentially. The constant use of technology in all spheres of life, makes it imperative

for Teacher Education to have a paradigm shift from traditional lecture method to ICT mediated teaching & learning.

Globally, educational systems are under great pressure to adopt ICT based innovative methodologies in the teaching and learning process, to prepare the student-teachers with the skills they need for the 21st century classrooms. It seems that, teaching profession is evolving from an emphasis on teacher-centered, lecture-based instructions to student-centered interactive learning environments. ICT integration is understood as the usage of technology like a dream for educational processes, like, transacting curricular content, students working on technology to do authentic tasks and developing technology supported products, providing authentic assessments and institutional development. Today a variety of ICTs can facilitate not only delivery of instruction but also learning process itself. In fact, there has been increasing evidence that ICTs may be able to provide more flexible and effective ways for lifelong professional development of teachers.

Undoubtedly ICTs has brought about many challenges and opportunities for education. The educational system needs to come to terms with these new challenges and take full advantage of the opportunities. If educational institutions have to ensure that their student-teachers leave the institutions as confident individuals capable of using new technology creatively and productively then their teachers should have the competence to integrate the emerging technologies and the digital content with all their operations.

A Teacher Educator being a pivot in the process of teaching learning in a Teacher Education institute, knowledge of ICT and skills to use ICT in teaching learning has gained immense importance. A teacher is expected to know successful integration of ICT into his/her subject area to make learning meaningful. This knowledge and skill development during pre-service training has gained much importance with the notion that exposure to ICT during this stage is helpful in increasing student-teachers' positive attitude to integrate technology for classroom teaching.

Sources & Resources Required

- It is required that physical or Infrastructure facilities are created for the ICT integration in day to day teaching. The various facilities such as Computers, Internet, LCD facilities will have to be provided. Learning Resources, such as, audio resources, video resources, animation movies, and clips should be made accessible.
- If student-teachers are expected to initiate the use of ICT in their teaching as well as in training, the Teacher Educators must be confident in using ICT in transaction of curriculum. For this Teacher-Educators should have the required professional competencies and training.
- Academic reforms to facilitate change.

Voices of Student-Teachers

The student-teachers expressed that they get feedback from the teachers as well as from their peers. The ICT use helped them to share their views clearly. The ICT Integration helped them to involve the students in the learning process and encouraged them to use various learning resources. The student-teachers spoke that the ICT integration in the classes helped us give better feedback to peers, so that they could improve their communication skills.

Practice Outcome

Teacher Educators have become more perceptive to the use of technology and were confidently using it in their work. They have become more aware of the needed alterations in their teaching, learning designs efficiently with the adoption of technology. There is a greater readiness to use digital mode in the various teacher roles and also to render the technology to suit resource scarce situations. The practice has made it necessary to continuously introduce revisions in curriculum transaction according to the changing needs of student-teachers and enhance the level of technology adoption in Teacher Education.

Such ICT based teaching was given in the form of elective courses in some of the Teacher Education institutes and in compulsory courses in other institutes, the teaching learning in these courses were limited to using M. S. Office package, thus still more to be done to incorporate the other ICT aspects into curriculum.

Thus education system should encourage the use of digital tools and resources that are freely shareable and modifiable, in line with other curricular resources and discourage the use of software or content which is privately owned and which teachers and education system is legally and technologically prevented from sharing/customizing.

Innovativeness of the Practice

The surveyed institution has competent Teacher Educators who were integrating ICT in their teaching enthusiastically. For example, ICT in transaction of Psychological theories: from the past few years, the psychology subject Teacher Educator have experimented teaching psychology with video clips especially for the teaching different learning theories, first with a heavy emphasis on showing a video clip - theory - video clip - evaluation. Teacher Educator had success with this approach.

Requirements for Adoption and Adaptation

The success of implementing ICT in an institute context depends on a number of factors. Many issues have to be taken into account during this process. Factors related to educational and technological developments can play an important role in both the decision to start implementing ICT in education and in the actual implementation. In addition, infrastructure issues and questions related to the financial support during and after the process of implementing ICT are important considerations.

Colleges or Departments of Education planning to integrate ICT in their teaching/training would require creating basic physical infrastructure such as computer systems (preferably a Lab with all systems in LAN), LCD projector and Internet (preferably broadband). But having a computer lab does not guarantee the use of it in teaching-learning process. Teacher Education should have an attitude to plan & use it. The Teacher Educators will have to be trained and motivated to use and experiment the use of ICT in their daily teaching sessions.

This can be made meaningful and educationally relevant through technology integration with a careful organisation, coordinated functioning and professional support across colleges or departments. However, it is essential that Teacher Educators identify the components of their programme to facilitate technology integration. Teacher Educators need to be capable of facilitating student-teachers in not only discerning where and how computer and ICT use can help them but also encourage them to actually utilize the same.

A well designed operational curriculum needs to be evolved by the institute. An independent computer lab will be of great help. In the absence of it, the institution must provide students with adequate access and time for computer based interaction. We do not regard implementation as something monolithic but rather give users room for cooperation and coordination. This makes users aware of their own responsibilities and freedom to deal with the new situation. The more an ICT-solution influences work processes, the more important it is that end-users feel involved.

Technology can be used extensively to help the learner make sense of the tasks assigned and learn what is required. However there is usually a need for multiple units of the technology which all the learners need to use at their own pace. Work sheets, models, interactive technology, all need to be made available to learners on an individual basis or in small groups. This method attempts to strike a balance between the teacher, as the main source of knowledge and the learner, as an active seeker of knowledge.

From the experiences it can be concluded that the successful implementation of ICT depends on a number of factors, and that the role of an expert group in supporting the whole process of using ICT in education can be different in each situation, even in the same institutional context.

Innovative Practice_10: Home Room

Preliminary

Home Room is the room in which the groups of student-teachers associated with the under Teacher Educators during the whole academic year where the Teacher Educators observe student-teachers' progress. In this room student-teachers can share each and every thing with the Teacher Educator. The purpose of this practice is to facilitate the student-teachers, to solve academic as well as social or personal problems.

In order to create a conducive teaching learning environment the institution is focusing on several unique practices that add to its academic ambience. Home Room is one such practice of the institution.

Objectives of the Practice

The major objective of home Room activity is to motivate the student-teachers addressing for their problems. This activity provides scope for better understanding of students' problems. Here the ideas are exchanged in free environment, suggestions are made and implementation plans are discussed.

However, following are the main objectives of the Home Room activity initiated by the institution.

- To identify general problems of an individual
- To provide adequate guidance for problems related with the adjustment.
- To provide opportunities for discussion regarding problems & experiences.
- To provide varied opportunities for developing understanding of the self.
- To help the students to develop abilities and confidence.
- To create congenial climate for free interaction.
- To develop interpersonal relationship.
- To develop awareness of educational & professional preparedness among student-teachers.
- To provide information regarding schools, curriculum, training programmes & vocations.
- To provide guidance to the student-teachers in the academic area and help them to be more focused by assisting them to set academic target for B.Ed. training programme

Description of the Practice

The arrangement of the Home Room Activity is a regular feature of the institution. In the regular time-table a separate special session is marked for Home Room session.

Every year, each faculty is given a group of 13/14 student-teachers as a Home Room group. The group meets the respective faculty in Home Room session. Each faculty with his/her group meets in the rooms allotted to them. It is the duty of the faculty-in-charge of the group to keep a complete record of the students. During the Home Room session, the student-teachers share their personal as well as educational problems. The faculty in-charge after patient listening to the problems, discusses the problem with the individual student and offers suggestions to overcome them. Sometimes even patient listening to the problems heals the situation.

If the students are not ready to express problems they are asked to write it and proper guidance is given for solving it. Through Home Room activity problem cases are identified and these are discussed in staff meeting as well.

Student-teacher relationships are better established in the home room than in any other group. In the home-room atmosphere the student-teacher is able to develop a relationship with the pupils.

Practice Context & the Need Addressed

Today's classrooms are a miniature of the world. The students entering into the class are of varied types. They may differ from one another in socio-cultural-economic context. They differ in abilities as well. Such type of heterogeneity is itself a great challenge for a classroom practitioner. To meet the demands of such a heterogeneous group, the teacher needs skills of different types. Giving/providing Guidance and counselling to the students is one of the skills.

The institution has initiated the practice of Home Room activity with a view to arrange guidance and counselling services for student-teachers and thereby preparing them for future real school experiences.

Home Room activity is the best way for providing guidance/counselling to groups/individual. Through Home Room, a conducive climate is created for the student-teachers and they feel to express their personal as well as educational

problems & difficulties. Home Room activity helps the individual to realise his/her potential, and direct towards meaningful life.

Sources & Resource Required

- Teacher Educators having insights into Guidance & Counselling are beneficial for the practice.
- Teacher Educators who facilitates an atmosphere for the benefit of the student-teachers.
- Sustaining interests among the faculty members.

Voices of Student-Teachers

Usually homeroom periods are used for class contact time and also a time to discuss about what is going on around the college itself or sometimes student-teachers go to the hall for briefing before any important events like a marathon or an exam.

The system of Home Room found to be successful for monitoring all round development of a particular student-teacher. It has tremendously helped in the improvement of the student-teachers performance. Student-teachers felt that they had somebody to turn to in times of trouble. It has improved the one-to-one interaction between the student-teachers and the Teacher Educator, which has helped to solve many of their academic and other problems. The overall results of this practice for improvement not only of the student-teachers, but solving of their problems.

From the feedback of the student-teachers it is evident that they found the Home Room sessions very useful as they were relieved of their academic problems and received educational & professional guidance. Moreover they Improved discipline and humanizing environment in the college campus.

Practice Outcome

The Home Room has resulted from an attempt to bring the student-teacher closer to some Teacher Educator in the college so that the individual can have someone on the college staff well enough acquainted with him/her to act as his/her adviser during the college pre-service training life.

The Home Room has also been found a convenient place to boost college plays, athletic events and other outside college activities. Here bulletins from the office could be read, student-teachers attendance checked, registration of pupils conducted,

and administrative regulations discussed by the student-teachers and Teacher Educator.

Teacher Educators have a divergence of opinion on the objectives and possibilities of the home-room program and have planned their program to accomplish the purposes peculiar to their own situation and ideas. Many believe the home room to be a successful agency in the school, others believe it to be of value but difficult to operate, while others as strongly believe the home-room plan is a complete failure for all practical purposes.

Mentoring has proved to be an ideal system to have adopted, as tremendous improvements have been seen in the overall performance of the student-teachers during the B.Ed. programme.

Obstacles faced and strategies adopted to overcome them -

Sometimes the student-teachers hesitate to express their difficulties. They feel shy and suffer from inferiority complex and do not show any readiness to participate. However special care was taken of such student-teachers and every possible step is taken by the faculty members for their problems.

Innovativeness of the Practice

The Home Room activity is really helpful for better understanding of the individual. The problem cases are identified and enough care and guidance is given for improvement. As a result student-teachers having low achievement, study problems, attitudinal problems improve their performance.

Requirements for Adoption and Adaptation

In the Home Room, student-teachers have an opportunity to learn worthwhile things not included in curricular subjects, and therefore very unlikely to be found in any other unit of instruction given by the school.

The Home Room probably offers the best opportunity for carrying out guidance in all its particulars. As a consequence of proper guidance, the home room becomes a valuable agency in educating for citizenship.

The Home Room offers the best opportunity for developing desirable social attributes valuable for successful and happy citizenship. Through the actual social experiences connected with the home room these social qualities emerge in a natural manner.

The mentor helps the student-teachers to understand the organizational culture. He/she provides guidance on personal issues and guides him/her to choose optional credit courses offered in the institution.

The mentor points out strengths and areas for the development of each student-teacher. He/she also helps the student-teachers to set the long-term goals and short-term learning objectives to enable them to perform effectively.

The home-room organization serves as an administrative device for organizing drives, making announcements, and gathering various items of child accounting. In short the home room expedites the routine administration of the school.

Innovative Practice_11: Reflective Diary Writing: Learning and Assessing Through Reflection

Preliminary

Reflection captures the understanding about one's own experiences. It can be verbal or written. Written form of reflection may form an invaluable record of one's thoughts, feelings, experiences, personal values and beliefs.

It may be self directing the student-teachers if they adapt this Reflective Writing since it would help them to know the level of their students, their own performance and compare their present performance with the previous one.

It would yield a feel of task attainment or a sense of relief after carrying out the teaching learning process for whole day.

It would also enhance their own understanding about what they are learning in the training institute. Thus the idea of Reflective writing is an expository method by which student-teachers identify their understanding about concepts and take responsibility for their own learning. Reflective diary writing was observed in one of the institutes which were surveyed by the investigator and it was having the following objectives.

Objectives of the Practice

- To record experience
- To facilitate learning from experience
- To support understanding and the representation of that understanding
- To develop critical thinking or the development of a questioning attitude
- To encourage meta cognition
- To increase active involvement in, and ownership of, learning
- To increase ability in reflective thinking
- To enhance problem solving skills
- To enhance reflective practice
- To develop teachers into reflective practitioners
- To enhance self expression and self knowledge
- To facilitate personal development and self empowerment

- To support behaviour change through Therapy
- To enhance creativity
- To improve writing
- To foster communication; in particular reflective and creative interaction within a group

Description of the Practice

Reflection is a critical questioning of our own practice.

Questioning is an integral part of becoming a reflective practitioner. Becoming a reflective practitioner ensures successful lessons in the classroom and ensures an understanding as to why one is doing certain things. It is a connection between the theory learnt at University and the teaching and learning process in the classroom.

For reflective writing, the student-teachers are oriented to write answers of the following questions. How does this philosophy relate to my classroom practice? How could I use this in my teaching? How could I do this in a better way? Could I have done this differently? What were the main strengths of this lesson? What were the weaknesses? What is the next step that I need to take to make my lessons more interesting? How was the reaction of the students in my class?

For an effective teaching learning process, student-teachers need to plan interesting lessons. The Teacher Educators expressed that reflective writing would help the student-teachers to identify the areas which need improvement. While writing reflective diary student-teachers describe the classroom activity, what they learnt during that activity, their own strength & weaknesses in conducting those activities. In short they describe the classroom practices in connection to their personal attributes; this in turn will develop the skill of critical analysis in them. Thus, this practice will shape the professional development of student-teachers in a better manner.

An example of reflective writing:

“My hopes on my first day as a teacher were that everything would go smoothly and that the pupils would see me right away as their teacher. Some fears were that I would not have enough planned to fill the day, and that the pupils might get bored. If I were to relive that day I would relax and encourage the pupils to talk to me about

themselves and their interests. I would not be afraid to learn with and from my students.”

Practice Context and the Need Addressed

The new perspectives emerging in school education demand future teachers to have Prospective reflection (i.e. looking forward), Spective reflection (looking at the present practices) and Retrospective reflection (i.e. looking back). To develop these attributes student-teachers should be aware of what they are doing, how they are doing and why they are doing. The Teacher Educators of the institute in which reflective diary writing was observed expressed that this practice involves self description, self analysis and self evaluation of the thoughts and actions of the student-teachers, which would enhance their quality as prospective teachers.

Sources & Resources Required

- Teacher Educators who are committed and knowledgeable about the process.
- Teacher Educators needs to be active and observer in the entire process without dominating an individual. Effective implementation of this practice requires willingness and well oriented Teacher Educators. Time is one of the important elements to observe this practice.
- The institute not only ensures reflective diary writing by the student-teachers but also takes an exam on this practice.

At the end of each semester student-teachers have to appear in the application based examination. During the exam, the student-teachers are allowed to keep their written reflective log. The score of this exam is included in the final results. One such question paper shown below.

Table_12: Evaluation for Reflective Diary Practice

Duration: Three Hours	Subject code: ED 147
Marks: 100	Time: 10:00pm to 1:00 pm
Date: 30-11-13	
Reflect on your journey of becoming a teacher in Semester I	
1. Mention your profile at entry (of Semester I) and at exit (of Semester I). Focus on your ideas on learners, teachers and school.	

2. Mention different theories, practical courses and sessional work and their focus.
3. Indicate interrelationship between the different courses with the help a diagram. Also explain the interrelationship.
4. Mention three experiences in Semester I which have influenced you greatly in the process of becoming a teacher.
5. Describe the learnings from reflections and the challenges in it.

Voices of the Student-Teachers

Student-teachers reflected that initially they felt how to write, what to write and when to write the reflective log, but with further guidance from the Teacher Educators, it became part of their daily habits. They opined that though initially they started with just writing about their experiences, ideas, thoughts and feelings in the reflective log, but, later they could critically think about their own strengths & weaknesses during the teaching leaning process in the school. They emphasised that reflective log writing has developed problem solving ability in them, thus leading to enhancement in self-confidence and self learning required in classroom situations. Student-teachers have reflected that this practice has improved their communication skills and writing skills. Many of them also said that, this practice helped them to learn many things from their peers to become better teachers. Some of the student-teachers voiced that they were able to work on improving their personal attributes, since this practice taught them critical self analysis.

Practice Outcome

Though most of the student-teachers held a positive attitude towards Reflective log writing, there were few suggestions for its improvement. The student-teachers said that Reflective log writing should be recorded, since writing takes a long time. They were of the view that there were many other activities which were to be done in one year of B.Ed. programme and writing Reflective Log becomes an extra task. Student-teachers also suggested a viva voce exam to be conducted at the end of the year for Reflective Log practice rather than having a written test, every semester. Another suggestion was to encourage the student-teachers to make Reflective Log writing a habit, for enhancing the quality.

The student-teachers & Teacher Educators voiced some challenges faced while implementing the practice

- Student-teachers felt it was time consuming since along with enlisting the daily experience one is expected to write reflections also.
- Student-teachers felt that sometimes it was a burdensome activity.
- Student-teachers expressed their fear of unveiling of their personal aspects, if someone reads their log.
- Teacher Educators felt that some of the student-teachers wrote the log for the sake of writing.
- Teacher Educators expressed that there is a gap in self reflection when the student-teacher is absent for the classes.

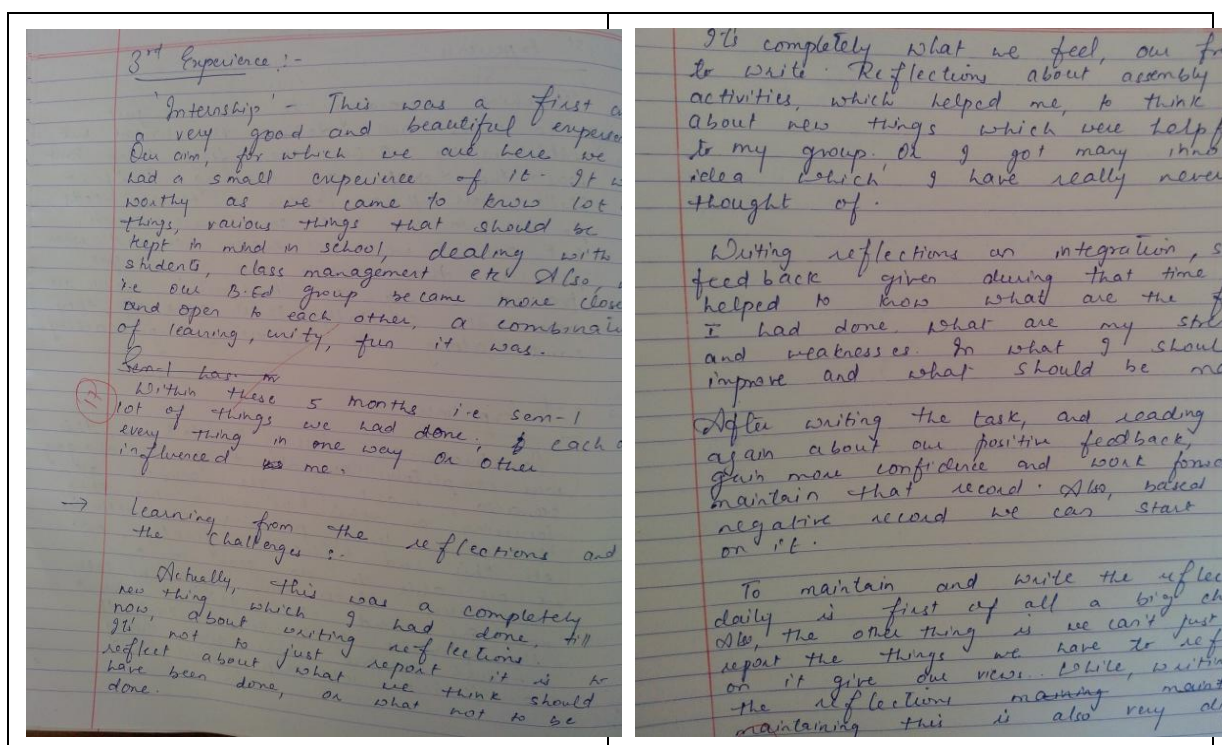
It becomes obvious that this writing activity provided student-teachers with a structured way to internalize taught concepts through the provision of documented data for problem solving and further conceptualization of expository methods. Student-teachers were able to document breakthroughs, acknowledge strengths and weaknesses in their conceptualization develop strategies and counter strategies for use, recognize possible areas to be clarified and create connections between practice, content and context. It further allowed the student-teachers to attend to new features of learning that were previously ignored and assign new significance to previously identified areas.

Innovativeness of the Practice

This technique helped student-teachers to enhance their learning as they have the opportunity to think and reflect on what they have learnt. Here, the student-teachers can think, relate and interpret by their own. After some learning experiences/Micro teaching/Simulation/Internship or any activities, student-teacher knows their strength, weaknesses, what is to be improve, where to improve and how to improved through this practice.

Here are some of the evidences of exam answer sheet.

Plate_8: Responses to the Evaluation questions for the Reflective Diary Practice



Requirements for Adoption /Adaptation

To adopt such a practice requires a clear understanding that Reflective Diary is not merely listing the events, but needs an environment which accentuates favourable conditions for learning through the encouragement of reflection in the institute. It requires an intellectual forum through which thoughts can be assessed. This practice also requires mental readiness of student-teachers to actively participate in learning process and take ownership of their own ideas.

Innovative Practice_12: Balloon Debate

Preliminary

A Balloon Debate is a debate in which a number of speakers attempt to win the approval of an audience. The audience is invited to imagine that the speakers are flying in hot-air balloon which sinks. Every time someone must be thrown out. But at the same time all the speakers are not thrown out of the balloon

The premise of a balloon debate is that each person takes on a particular role and then it is imagined that all these characters are together in a rapidly falling hot air balloon. One must be thrown overboard to save the others, but who will it be? Typically each participant/character speaks on behalf of a famous person, celebrity, philosopher, profession, politician and fictional character. Each participant has to justify their stay in the balloon. The one who is not able to justify his /her stay in the balloon is disqualified. This continues till one participant is left in the balloon.

Objective of the Practice

- To encourage pupils to question a point of view
- To help the pupils improve their communication skills
- To help pupils handle objections
- To encourage thinking skills
- To encourage rebuttal skills
- To encourage listening skills

Description of the Practice

Student-teachers are divided into two groups, one group, in favour, of the proposition given by the teacher, and another against, which is in opposition. They take turns to present arguments, and respond to the other side, trying to persuade the rest of the class one way or the other. Here, the audience (student-teachers) is not passive. They have an opportunity to question the speakers, and to give their own opinions from the floor. A chairperson and a timekeeper, who keep events, keep moving and co-ordinate the whole event.

The student-teachers were instructed that they were in a hot air balloon which was losing weight rapidly and would soon crash because it was overweight; therefore

passengers had to be removed. The students were then asked whom they would choose to remove from the balloon out of the below given list of passengers

1. Sir Isaac Newton
2. Albert Einstein
3. Galileo
4. Sir Jagdishchandra Bose
5. Dr. C. V. Raman
6. Dr. Vikram Sarabhai

Acting Element - the student-teachers were encouraged to dress up like a character from the above list if they wanted, just for fun with it, but should not ridicule the character.

Rules and Regulations -

The following rules and regulations were given before the practice started.

- All the participants are expected to prepare for one of the personalities given
- You will research the contributions of that personality and find the faults of others.
- You will try to convince the audience why you should stay opposed to others.
- Two participants from each group can present the argument at a time.
- Each participant will be given 5 minutes (or however long you decide), to present the argument as to why he/she should be in the Balloon.
- The audience (classroom students) will vote as to who will remain in the balloon.
- Audience can vote only once.
- Things that would be considered in this case: sources (evidence), creativity, and quality of arguments
- You will have to state a 3-4 minute speech offering the rationale as to why you should be allowed to remain in the balloon.
- The audience will vote for the participants based on the arguments put forward by them. The audience will be asked to give the reason as to why they voted for a particular participant.

Judging Criteria -

Debaters are judged

- ability to persuade
- on the soundness of the arguments that they present
- on their debating skills
- on their Analysis and evidence
- on their Reasoning and reputation
- on their Delivery
- on the Enactment of the role that they have chosen

Accomplishment Drafts

Debate -

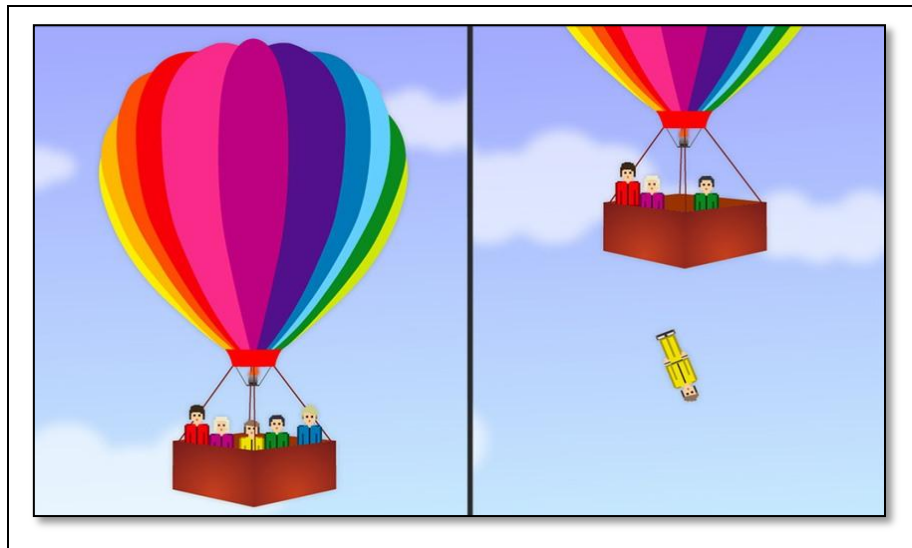
- 30 Points: Clash (proper argument support and opposition to others)
- 30 Points: Evidence of Research
- 20 Points: Performance; eye contact, etc.
- 10 Points: Improvement
- 10 Points: Placing

Practice Context & the Need Addressed

As we know that play way method is one of the methods through which student learns things in a very easy manner. If the student-teachers are aware about new ways to involve students, it would help them in future to incorporate such practices in their classroom. Here, Balloon Debate is good practice to introduce different founders, Philosophers, Scientists, Sociologists to a class through debating and can be used as a platform for a wider discussion in the classroom situations. It would help students to remember major contributions given by personalities.

One of the main advantages of a balloon debate is that it can generate a large amount of information, with the pupils researching their own topic and then telling the rest of the class what they have learnt.

Plate_9: Symbolic Representation of Balloon Debate



Sources & Resources Required

- Well trained Teacher Educators who can direct the student-teachers
- Time management in Method classes
- Provide support of Reference Material (Print, Mass-Media, Internet) to the student-teachers

Voices of Student-Teachers

The student-teachers said that the Debate has improved writing and speaking skills as they are now able to produce more developed arguments and structure them in a logical way. They opined that using debate within the lesson encouraged them to explore the idea to involve school students during practice teaching. This is because each student is assigned a role that can range from being the chairperson, timekeeper, a speaker or a speech writing assistant. The topic was decided, roles are distributed, speeches are written and later evaluated – all of which is done by the students.

One of the student-teacher opined that “I like using this exercise because it works well with English language students of all levels and abilities, it enhances student vocabulary and there is usually something for them to get passionate about within the discussion”

Practice Outcome

The impact of debating within the classroom was significantly seen in terms of the organised verbal communication made while arguing, team working, persuasiveness and time management, higher-order thinking skills of evaluation and analysis. It encouraged students to produce their own arguments rather than **regurgitate** those of others. In future, this Balloon Debate would help the teacher to incorporate this practice on the school students irrespective of the classes in which they are studying.

Plate_10: Performance of Student-Teachers in Balloon Debate



Innovativeness of the practice

The need to survive within the balloon and not to be kicked off makes the participant to be more responsible and competent to collect information and present it in the best possible way. Learning this practice would be fruitful exercise for the student-teachers since it can be useful in school classroom situations.

Requirements for Adoption and Adaptation

Any Teacher Education Institution can easily adopt this practice as it involves all student-teachers of the class. It can be implemented at higher secondary classes also for all the stream students for different subject specific topics. Some of the topic for which this practice can be done are: Greatest scientist/scientific discovery/invention

(these can be made more specific to cover a particular field, decade, Nobel Prize winner...), Worst scientific invention/discovery, Best way to spend £10 million to tackle...., most important organ in the body, most important element, Invention from Science, any fiction that you would like to be real, most important decade/century in science and Alternative energy sources.

Main requirement for adoption is the preparedness within the institution through concerted efforts among the Teacher Educators, reorientation on the teaching learning practices, mind set to render learner autonomy, teacher facilitation and organizational flexibility.

Innovative practice_13: Spark Sessions

Preliminary

Newly emerging branches of Science or any new idea/information is the point discussed in the first 15 minutes of the Science Method Class.

Objective of the Practice

- To enhance student-teachers knowledge in Science subject, so that it helps them to enrich their lessons in classroom.
- To direct student-teachers to think about practical aspects rather than just being theoretical and bookish

Description of the Practice

The authenticity of the information is ensured during the discussion. The student-teachers who bring the information also spell out the source of information, hence authenticity is ensured.

The scientific aspects that are known/experienced in day to day life but lack conceptual/logical understanding are the points of discussion most of times. This helps the student-teachers to clarify the scientific concepts and establish links between different concepts, to be taught. Factual aspects which are unknown are also discussed.

The participation in spark practice was compulsory for all student-teachers of Science Method. Internet is a good source of getting new updates about any subject. This practice gave an opportunity to student-teachers to use internet hence helped improving info-savvy skills.

Practice Context & the Need addressed

The practice would be a boost to the Science Method classes, especially in those colleges where content examinations are not conducted for student-teachers. Science is an ever-growing subject, where new research findings and facts springing up every now and then. Hence it becomes very important that the science teachers, especially new teachers keep abreast with these updates. Such a practice in B.Ed. would develop information gathering habit in student-teachers.

Sources & Resources Required

- The main source required is the staff who has to act as a mediator
- Commitment and willingness to conduct this session to renew knowledge of the Student-Teacher.
- Time management in method classes.

Voices of the Student-Teachers

Student-teacher expressed that this practice helped them to gain a lot of new information, which helped them enrich their teaching learning process.

Further they expressed that they could seek interest of the students while teaching in school practice teaching sessions. Hence the classroom could be managed well.

On the other hand Teacher Educators expressed that they could also gather good amount of information related to Science subject. Thus, Spark was the source of motivation for them also to read something new from Science field, and enhance their knowledge.

Practice Outcome

The main barrier was that the majority of the student-teachers admitted in B.Ed. were lacking with content knowledge of their teaching subjects. For any Science subject teacher, it is expected to integrate extra fruitful information for the enhancement of knowledge among school student during the practice teaching phase. So, with the aim of enhancing course content among student-teachers the course being of one year duration needs lot of inputs and time beyond the regular schedule to achieve the objectives. However, the outcome of the efforts by doing this practice is that, many student-teachers got good quality content enrichment.

Innovativeness of the Practice

The practice provides an opportunity to search for novel, meaningful and fruitful information. It was welcomed by the student-teachers.

Requirements for Adoption and Adaptation

Quest for new knowledge through supportive culture.

Innovative Practice_14: Open Book Exam for – Education in Emerging Indian Society

Preliminary

It is an examination wherein student-teachers can have an access to their prescribed textbooks and even other resource materials in the examination. Since such referring is possible, meaningful and deep learning can be fostered. The open book exam is aimed at deep understanding of the concept.

One of the foundation papers i.e. Education in Emerging Indian Society is examined in one of the surveyed institutions through Open Book Examination (Internal examination).

Objective of the Practice

The purpose of keeping Open Book Exam is especially

- To make the student-teachers capable enough to revamp thinking, to develop reflective thinking, diversified thinking, and scientific thinking towards emerging Indian Education Society.
- To make future teachers to utilize their knowledge in suitable contexts and thereby enable reflective thinking

Description of the Practice

The Open Book Exam paper implemented by the surveyed institution is attached.

Practice Context & the Need Addressed

Open Book exam is needed in Teacher Education to tests the higher order thinking skills, association of knowledge level to the practical aspects, comprehension, analysis, application and synthesis between core and back up knowledge, generate deep learning rather than rote learning.

In order to achieve its goals, open book exams must be attentively designed, so that the higher or more complex levels of thinking can be promoted.

The present examinations are only certificate oriented but with the lack of predictive validity. The certificate must assurance that an individual, who is receiving it, can teach well, can access information using variety of the resources either to answer classroom queries or to update knowledge. But at the same time the examination

questions presently given seem to be very factual, demand reproduction or recall of facts and therefore provide same type of training.

Different assessment practices i.e. assignments, projects, action researches, unit tests, practice teaching in Teacher Education courses do focus on higher order thinking skills but they do not assure that the future teachers will serve to make teachers who would have similar skills. In order to meet these demands of wholistic education and evaluation of the upcoming teachers, the nature of Teacher Education has to change in its evaluation context. It has to help the upcoming teachers to acknowledge variety of learning spaces and curriculum styles and also help them to build the capacity in the child to construct knowledge. Teacher Education programmes must therefore include reflective practice for unless the teacher is able to reflect and become critical, he/she cannot develop such thinking process in the child.

Sources & Resources Required

- Workshop to orient the faculty members
- Question Bank with a variety of questions
- Reference Material (Print, Mass-Media, Internet)
- Expert evaluator

Voices of Student-Teachers

The student-teachers opined that even if they sit in the examination with the materials, they faced scarcity of time. So, they suggested that before the implementation on new batch students, the institution should pilot, so that the students can have the actual experience and can do the preparation. Here are the voices of student-teachers.

Student-Teacher 1: *I like open book exams because it reinforces my level of thinking. In the real world, there are reference materials for questions asked. It is important to know the use of knowledge rather than just recalling it to write the exams.*

Student-Teacher 2: *I strongly disagree with the idea of open book examination that only the worst students can feel better about an open book exam. I think it is pretty obvious that different people view the various types of exams differently. I was always a fan of open book exams personally, but I knew others who were not. For me, if I didn't understand the topic at hand, I couldn't do the homework, so an open book exam simply eliminated the need to memorize formulas, tables and values.*

One finding that seems concrete: The student makes a big difference. A good student does well regardless of what type of test he/she is given and a poor student does poorly regardless of what type of test he/she is given.

Practice Outcome

It was found to encourage interaction with a variety of learning resources and discourage mere rote learning. Also it presented a challenge for the examiners to set original relevance quality questions and discouraged stereotyping.

Innovativeness of the Practice

It helps in developing awareness of student-teachers in writing various concepts which are very necessary to for them. It also helps the student-teachers to get oriented about the various techniques of writing answers.

Requirements for Adoption and Adaptation

The student-teacher needs to prepare differently, attentively and thoroughly, and on the other hand the Teacher Educator has to spend lot of time for thinking about the problem areas and its related solutions. Question papers cannot be set overnight. The questions need to be application based.

The open book exams should serve the purpose of critical thinking, reflective thinking, analysis of complex material, selection of the questions and synthesis. It should be quite challenging, relevant and for development of intellectual qualities of the students.

[The Sample question paper used for an Open Book Exam is given in Appendix_XIII]

Innovative Practice_15: Content Enrichment for the Enhancement of Teaching Learning Process through Participatory Learning

Preliminary

The practice is aimed to build a successful teaching strategy in which small teams, with student-teachers of different levels of ability, used learning activities to improve their understanding of content.

Objectives of the Practice

- To create an active learning environment
- To enhance students' learning and academic achievement
- To enrich the Content Mastery In Science Subject
- To build up cooperative learning skills
- To develop students' social skills
- To develop communication skills
- To develop content mastery in science
- To build up self-esteem of students
- To develop Life Skills among the students

Description of the Practice

Phase - I Grouping

Four groups of five students in each were formed randomly. Each group member was assigned a Chapter of Physics to learn and then to share with the group members.

The Method Master monitored all the groups.

The following groups were formed. (Group name may change as per the requirement)

Group-1: Newton

Group-2: Dr. Vikram Sarabhai

Group-3: Albert Einstein

Group-4: M.K. Gandhiji

Phase - II Association

- Selection of group leader.
- Distribution of topics among the group members.
- Further distribution of sub topics of each chapter in the group and each member was made responsible for his/her own sub-topic.

- Responsibilities were distributed

Phase - III Engagement

- Informal communication between group members (to know each other)
- Knowing the sub topic of each member of the group
- Content analysis of individual sub topics.

Phase - IV Exploration

- Sharing of content within the group
- Group discussion within key points prepared by individual member of the given content with visual illustrations.
- Writing the key points for each sub topics along with Questions and answers.
- Individual presentation within the group.
- Transmitting one's own content to the group individually.

Phase - V Reflection and Feedback

- Group presentation by the leader of each group
- Co-relating the sub-topics
- Summarizing the topic
- Sharing of written material
- Interaction with the other group

Practice Context & the Need Addressed

Education is the major tool to develop the innate potentialities of an individual. It makes one not only realize one's potentialities but also enables one to use them for development of oneself and society. In order to achieve this, education needs to impart life skills to the students. Life skills can be developed through Co-operative learning. Effective and relevant Teacher Education is the key to reshape the lives of future generation. Any lacunae in the preparation of the Teacher Educators would cost the nation very much. Innovation in the teacher's education programmes is important because it helps to prepare proficient teachers, who are builders of the Nation.

A teacher is the first and foremost reference point for the students for acquiring knowledge and developing desirable skills and attitudes. For this the teacher must have mastery in content- cum methodology. Learning outcome of contents are related to important elements of life skills, values and behaviour. Hence, knowledge acquired should lead to the development of life-skills. In the present age of knowledge explosion, selecting relevant Knowledge and organizing it systematically is a big

challenge. Therefore we have to plan novel and interesting modes of imparting knowledge so as to help Students to acquire content mastery. Group learning model is one such effective mode, which can lead students to master content and thereby inculcate life skills through co-operative learning.

This is by engaging student-teachers in the learning process not only to learn but to construct knowledge themselves. Active learning means – moving from passive learning to Active learning. It is based on learning by doing not individually but in teams or groups in a co-operative manner.

Sources & Resources Required

- Willingness of Teacher Educators and Student-Teachers
- Time Management during Method Class

Voices of Student-Teachers

Peer discussion helped the student-teachers to understand well, retain knowledge for long time and develop better communication skills. It was noticed that through group leaning, development of interaction skills, self awareness, critical thinking, communication skills, active listening, emotional control, adaptive social behaviour, rational thinking, argumentation/persuasion, ability to adjust, respect to others, tolerance of different opinions, co-operation, belongingness to a group, as well as positive thinking enhanced.

Practice Outcome

Creation of a participatory learning environment for students: This new initiative has enabled students to understand the nature and the extent of problems and the possibility of intervention and the change that could be envisaged. Peer learning is facilitated: Student-teachers have had an exposure to work in groups, which facilitated peer learning.

Innovativeness of the practice

The practice helps the student-teachers to develop awareness about the participatory approach of learning. Unlike other institutes where the student-teachers just write an exam of the subject. Here the subject knowledge is enhanced through participatory approach which make content learning interesting. This method of teaching may later be utilised by student-teachers for teaching their students.

Requirements for Adoption and Adaptation

For adoption to this practice, a dedicated group of Teacher Educators are needed, who believe in enhancement of content knowledge of student-teachers. Only if such Teacher Educator/s is there, the planning of such participatory learning activities can be done. Also, the adoption of this practice requires learning resources like name of websites, reference books, encyclopedias etc. Time required for such practices would be more; hence a proper planning of activities should be done. Some extra periods can be allotted for this practice, especially for method classes.

It requires

- Healthy class contrellation
- Meaningful Group Dynamics
- Learning Quest
- Team Spirit
- Educational Culture
- Dynamic Teacher Educator
- Open Student-Teachers

Innovative Practice_16: Dialogue Mode of Seminar Instruction

Preliminary

Seminar instruction as a part of internal assessment is adopted for absorption of B.Ed. course materials in the semester system. The traditional individual mode of seminar does not fulfil the objectives of meaningful instruction. Diversified knowledge may never be developed. Opportunities for cognitive mapping, in-depth analysis of the text, innovative thinking, intellectual sharing, conversation and communication and interpersonal relationship are rarely possible in individual mode of seminar. Hence the cognitive and affective learning may not take place during such a practice. If the Dialog mode of seminar is used the opportunities to express one's own thoughts and ideas is better which will help in development of both cognitive & affective attributes.

Objective of the Practice

Peer Dialogue for student-teachers for seminar instruction was started to fulfil the following objectives.

- To create an active learning environment during seminar
- To improve communication of student-teachers
- To develop social behaviour and knowledge building in student-teachers
- To ensure good practice of seminar instruction
- To develop practice for reflection
- To enhance the ability to listen

Description of the Practice

The dialogue seminar method aims to give student-teachers an opportunity to practice analogical thinking. This involves discovering connections between the development of knowledge in their own area of activity and in other professional groups.

The practice involves following phases.

Phase: I

A) Identification of topic for Seminar instruction

Five topics were selected from “Education in the Emerging Indian Society”, Course-I of B.Ed. syllabus of University. They were

- Changing role of the teacher in modern society
- Need of value based education

- Women Empowerment and education
- Educational opportunities in an emerging society
- Significance of mission and goals of a school

B) Formation of dialogue groups

Five groups, each consisting of 10 student-teachers were constituted for this practice. Each group was assigned one topic for the seminar.

C) Orientation about the dialogue mode

The Teacher Educator conducted a lecture followed by question-answer session about dialogue and its mode for seminar instruction. The steps and its activities through four processes of cycle were discussed. What should be the role of each and every student-teacher individually and group wise was clarified. Details were provided through slides and hard copy.

Phase 2: Plan of Action

The Teacher Educator carried out group dialogue for seminar instruction through a cycle of activities in the following way

- Zero process- Rapport building within group
The student-teachers were instructed to sit in a group forming a circle. Five such groups were formed. All the groups were given 10 minutes for informal communication. The session started with the chanting of 'OMKAR' sound.
- First process- Engagement: Programming of the topic
The scope of the topic was broad. So, the student-teachers divided the topic into theme and distributed the same group wise. This activity was voluntary. 20 minute was the time limit to complete the work. Each group had a leader. The Student-teacher who led the group for programming was recognized as a facilitator of that group.
- Second process- Exploration: Presentation of theme paper through dialogue
After the 'OMKAR' recitation, each individual in the group started the paper presentation. During the presentation each member tried to convince his/her group about the main points of the paper. When one was communicating the points, others listened actively. English, Hindi and Gujarati were the three languages used for communication. Active listening, back-and-forth question answers, open-ended arguments to share knowledge and collaborative settings were the components of this process.

- Third process-Reflection: compare and contrast to reformulate the title
During this process discussion and active interaction was conducted, to find out co-relation between the different theme and aspects under those theme. They discussed difficult points and compared ideas of each other and discovered new agendas constructively. After this they perform the task of refining & reformulating the titles for their theme. Each group facilitator recorded the main view points of the theme paper to draw out summary of their group work.
- Fourth process-Feedback: Perceptions towards group work
Each facilitator presented report on their group work. The report was based on how they contributed towards solving main learning issues. They narrated on the nature of sharing and collaborative work in completing their tasks. They shared about the context in which the group doubt was clarified through active communication.

Minutes/Notes taker -

The “minutes of ideas” plays an important part in the dialogue seminar method. They are a permanent record of the group’s collective reflections. This means that, as far as possible, these minutes should be notes of conversations that reflect the development of the topic. Each group has a minute of ideas. The minutes/note taker in the group listens to the individual and understands the speaker’s sensibilities about the topic. The minutes are circulated in advance to each group before the meeting. The last session begins with comments on them. The note takers contribute to a continuous evaluation of the seminar, and make a permanent record of what was expressed in the conversations (that might otherwise easily be lost) and they help the seminar leader deal with relevant themes, issues and perspectives in greater depth.

Practice Context & the Need Addressed

This mode of instruction has a format similar to the lecture mode in that the instructor and the students engage in the direct exchange of information. However, the typical seminar/discussion course is less formal in structure, and may require the student-teachers themselves to present, orally and/or in written form, new information to one another and to the teacher.

Sources & Resources Required

The Dialogue Seminar method requires its facilitators to be familiar with the literature that has been developed in the Dialogue Seminar programme, books that offer perspective literature.

Practice Outcome

The dialogue seminar method is based on the participants conducting a dialogue of this kind, a dialogue that, over time, creates insights, with the conversation being broken down into parts, being reinforced and emphasised by means of an exaggerated staging of the process of listening. A listening mode of reading stimulates (written) responses, reading clearly what has been written down, while the person reading who hears how the different parts of the text are received by the group. Each participant is then expected to make a comment on what has been put forward. Speaking becomes a process that involves risk.

Voices of Student-Teachers

- Active learning environment was created.
- Communication skills of the student-teachers improved.
- Positive Social behaviour developed and knowledge building enhanced.
- Good practice of seminar instruction was developed

The group dialogue was based on four processes in which the student-teachers

- Shared to find learning issues
- Developed interpersonal interactions
- Contributed their understanding on the problem through insights and solutions
- Empowered others to speak and contribute.

Innovativeness of the practice

This mode of instruction involves more interaction between the teacher and students compared to the lecture mode. Another highlighting characteristics of this practice is that it involves the analysis and synthesis of information gathered through different modes of instruction.

Requirements for Adoption and Adaptation

Today, the perspective on the teaching and the development of ideas seen from an epistemological viewpoint lies at the core of this subject. As a method, the dialogue seminar explores the concept of knowledge by encompassing the nature of practical knowledge along with the theoretical knowledge. Concept formation in understanding is central to the dialogue seminar method. In Plato's writings on Socrates' dialogue, he describes dialogue as an instrument for understanding. But the understanding is of a special type, and is never a synthesis. It is based on a concept of truth that can never be captured or made permanent. What is available to us is a variety of perspectives, and the ability to allow them to influence us through dialogue. In that sense, dialogue that creates insight and understanding may also be said to be a concentration of the process of concept formation in general: it takes place between people, it continues over time, and it makes complexity and multiplicity visible.

Innovative Practice_17: Career Centered Activities

Preliminary

The practice is aimed to provide a setting to demonstrate the student-teachers thinking strategies and show the various techniques like preparing curriculum vitae, maintaining portfolio, organization of mock interviews and by organizing career talk for professional growth in diverse educational situations as well as their professional and personal attitudes towards teaching and learning.

Objectives of the practice

- To create awareness among student-teachers regarding available career options and help them in identifying their objectives.
- To find out the needs of the schools.
- To help the student-teachers to achieve their goals.
- To guide the student-teachers in developing professional skills and job-search strategies required to achieve their objectives.
- To organize activities concerning career planning.
- To provide training for personal marketing tool to the student-teachers after B.Ed. training.

Description of the Practice

One of the surveyed Teacher Education institutions was found practicing and organizing career centered activities for the future teachers.

Table_13: Objective wise Career Centered Activities

Sr. No	Objective	Activity
1	Develop awareness among student-teachers regarding available career options and help them in identifying their career objectives	Organize expert lecture for creating awareness
2	Organize activities concerning career planning of Student-Teacher	Skill development Programs i. How to face the interview?

3	Guide the student - teachers in developing skills for their professional development.	ii. Workshop on how to prepare resume iii. Organize a mock interview iv. lecturer on how to prepare and maintain portfolio
4	Guide the student - teachers in job search strategies required to achieve their career objectives.	i. Orientation programmes on job search strategies ii. Orientation for the student-teachers on recruitment procedure of the government institutions through TET/TAT

The following were the activities which the surveyed institute was practicing.

➤ **Conducting TAT/TET Sessions**

Cost effective classes for providing training for TAT/TET (Teacher Aptitude Test/ Teacher Eligibility Test) classes are being conducted for the training purpose. This task will make student-teachers aware of the type of questions that are being asked in the TAT/TET exams so that they can prepare themselves to appear for the exams. The previous year exam question papers were also administered on them for giving them practice. Some time was allotted for orientation on the questions based on logical thinking and English grammar.

➤ **Organizing Career Workshops**

These workshops provide a shaping approach for strengthening skills, developing strategies of an individual which would be needed for the professional teachers and searching for job opportunities within the educational setting.

➤ **Providing preparation of Portfolio Training**

The professional Portfolio provides an evidence of teaching skills, growth achievements, and abilities for the teachers. It is more reflective of personal strengths and is more revealing about the pre-service teacher than a transcript or test score.

It would allow them to document and display the beliefs and practices which they would develop and implement in future, as well as offer a reflective view about their role as a teacher.

➤ **Organizing Mock Interview**

A mock interview is an emulation of an interview used for the training purposes. The interview tries to resemble a real interview as closely as possible, and provides experience for the candidate. It helps the student-teachers to learn what is expected in teaching profession and improves the individual's self-presentation. Mock interviews are often videotaped, and the candidate is shown the tape after the session, along with feedback from the interviewer. The mock interview trainer will provide constructive feedback on all the aspects of the interview process.

During mock interviews pre-service teachers were asked questions to one another typical of those asked in an actual professional teaching job interview.

Practice Context & the Need Addressed

Practicing all these activities would make pre-service teachers more active in enhancing their own learning in documentation of growth.

Sources & Resources Required

- Experts for training and organizing workshop
- Financial resources to invite experts for providing training to the student-teachers
- Time management
- Willingness of administrator

Voices of Student-Teachers

- Feedback from student-teachers was favourable. The practice contributed to build the strength of student-teachers within their training.
- The student-teachers expressed that this practice will be helpful to them for a job as well as to conduct the oral test of the school students.
- Facing the mock interview not only helped the student-teachers to build their confidence, but also allowed them to get valuable feedback and coaching on their performance. Further they responded that training of portfolio will be

useful for documenting to give evidences of the many skills and abilities which they have learned.

Practice Outcome

Career Centered activities provided an opportunity to the student-teachers to have an access to a variety of career options. It enabled the student-teachers to exercise their choice for compatible career options.

Innovativeness of the Practice

This practice prepares the student-teacher to direct their own learning, developing awareness of their strengths and weaknesses, and the opportunity to make choices about how they wish to present themselves as professionals.

Requirements for Adoption and Adaptation

To adopt such a practice the Teacher Educator has to provide,

- Motivation and supportive atmosphere
- Knowledge about the demands of professional teaching field
- Focus on skill building

Guidance of the team of experts from the professional field is required for orientation on the career opportunities.

Innovative Practice_18: Creative Hands

Preliminary

The practice is aimed to organise exhibition by preparing creative materials in Teacher Education institution.

Objectives of the Practice

- To develop various creative skills among student-teachers
- To develop the social values such as co-operation and collective responsibility
- To inculcate the value of dignity of labour and social service amongst student-teachers
- To foster aesthetic sense among student-teachers
- To enable the student-teachers earn their livelihood Through Socially Useful Productive Work

Description of the Practice

- Orientation is given to the students regarding this work shop.
- The student-teachers are divided into 5 groups carrying equal number of students.
- For each group two group leaders are appointed who also participate in making creative articles and one Teacher Educator is made in-charge of the group.
- All the group leaders collect some fixed amount from the members of each group and buy raw material to prepare the group item which is refunded on the sale of the item.
- Each group is directed to a particular venue where the work shop is carried out.
- In the workshop the student-teachers prepare the creative articles in a group with the direction of Teacher Educators or skilled persons and then they put them in the stalls arranged by the college. (schools students are invited to see the exhibition)

Need Address and the context

It is now universally accepted that education must lead to productivity rather than being purely theoretical and bookish. Education must equip the students with productive skills which will help them earn their livelihood in future.

Taking into consideration this objective, education for creativity and productivity has focussed by the institute conducting this practice. In addition to developing individual skills, such as development of habit to work in a community, encourage community thinking and foster aesthetic values the scientific temperament is also aroused in the student-teachers.

Sources & Resources Required

- Willingness of Teacher Educators and Student-Teachers
- Raw material as per the requirement to make the items and its Expenses
- Support from the Institution and Local Bodies for successful implementation
- Infrastructure Facility
- Time Management

Voice of Student-Teachers

- The student-teachers were motivated and encouraged when they got appreciation for their creativity.
- Many of the student-teachers were of the view that this practice made them improve their managerial skills since their Principal had asked them to invite different schools for the exhibition with an invitation letter. The student-teachers found this activity beneficial.

Practice Outcome

- Each group prepares one group item collectively and three individual items.
- These items are exhibited in an indoor exhibition.
- The principals and the school teachers of the surrounding schools are invited to the exhibition.
- Making adjustments in the B.Ed. time-table for this three day activity was a challenge.
- Some student-teachers did not show interest in the activity.
- Student-teachers insisted on being in groups of their own choice.

- Preparing individual items was found difficult by some student-teachers.

Plate_11: Exhibition of Handmade Articles prepared by Student-Teachers



Innovativeness of the Practice

The creative thinking of the student-teachers was aroused by this practice which otherwise is limited to some activities to deliver the content effectively. As a teacher one needs to have aesthetic sense and creative abilities to guide students for annual function preparation, organization of CCA activities and work experience activities. This practice helps them in such practices.

Requirements for Adoption and Adaptation

To adopt such a practice the Teacher Educator should provide

- Motivation and supportive environment.
- Ideas and guidance to prepare materials.

Innovative Practice_19: Inculcation of Seven Habits of Life Skills (Stephen Covey)

Preliminary

During the whole academic year, Principles of Personal Vision, Principles of Personal Leadership, Principles of Personal Management, Principles of Interpersonal Leadership, Principles of Empathic Communication, Principles of Creative Cooperation, Principles of Balanced Self-Renewal, Part One: Find Your Voice & Part Two: Inspire Others to Find Their Voice, by Stephen Covey are developed among student teachers by different teacher educators. Special lectures are being conducted to impart such habits in the classroom. The purpose of this practice is to develop Life skill values among the future teachers.

In The 7 Habits of Highly Effective People, the student teachers learn how to: take initiative, balance key priorities, improve interpersonal communication, leverage creative collaboration, and apply principles for achieving a balanced life. The student teachers not only learn, but also use processes and techniques to live by and apply the 7 Habits.

- Habit One - Be Proactive – The Habit of Responsibility
- Habit Two - Begin With the End in Mind – The Habit of Leadership
- Habit Three - Put First Things First – The Habit of Management
- Habit Four - Think Win-Win – The Habit of Mutual Benefit
- Habit Five - Seek First To Understand, Then To Be Understood – The Habit of Communication
- Habit Six - Synergize – The Habit of Interdependence
- Habit Seven - Sharpen the Saw – The Habit of Continuous Improvement

Objective of the Practice

To inculcate the seven habits of life skills in student-teachers the followings are the objectives.

Habits	The Student-Teachers Will Be Able To:
Paradigms and Principals of Effectiveness	<ul style="list-style-type: none">➤ Identify the key principles of effectiveness the 7 Habits are rooted in.➤ Assess paradigms and adopt paradigms of effectiveness.

	<ul style="list-style-type: none"> ➤ Identify areas of their work and person lives to which they would like to apply the 7 Habits.
Habit 1 Be Proactive	<ul style="list-style-type: none"> ➤ Take initiative. ➤ Respond proactively. ➤ Be responsible and accountable. ➤ Identify what can be controlled and influenced. ➤ Have a positive influence on results, their environment and others.
Habit 2 Begin With the End in Mind	<ul style="list-style-type: none"> ➤ Define vision and values. ➤ Create a mission statement. ➤ Set measurable team and personal goals. ➤ Start projects successfully. ➤ Align goals to priorities. ➤ Focus on desired outcomes.
Habit 3 Put First Things First	<ul style="list-style-type: none"> ➤ Balance key priorities. ➤ Eliminate low priorities and time-wasters. ➤ Execute strategy. ➤ Use planning tools effectively. ➤ Apply effective delegation skills. ➤ Use effective time-management skills.
Private Victory to Public Victory	<ul style="list-style-type: none"> ➤ Build trust in key relationships. ➤ Build an Emotional Bank Account with others.
Habit 4 Think Win-Win	<ul style="list-style-type: none"> ➤ Build high-trust relationships. ➤ Build effective teams. ➤ Identify wins for all parties and create effective collaboration. ➤ Use effective collaboration. ➤ Strategize to the long-term.
Habit 5 Seek First to Understand Then to Be Understood	<ul style="list-style-type: none"> ➤ Apply effective listening skills. ➤ Deeply and accurately understand others. ➤ Apply effective interpersonal communication skills. ➤ Overcome communication pitfalls. ➤ Give and receive input and feedback productively. ➤ Apply effective communication skills to the digital world.
Habit 6 Synergize	<ul style="list-style-type: none"> ➤ Leverage and build on diverse strengths. ➤ Apply effective problem solving. ➤ Apply collaborative decision making. ➤ Collaborate creatively to identify innovative and effective solutions. Embrace and leverage innovation.
Habit 7 Sharpen the Saw	<ul style="list-style-type: none"> ➤ Achieve life balance. ➤ Integrate continuous improvement and learning into their lives. ➤ Build capacity to practice the 7 Habits.

Living the 7 Habits	<ul style="list-style-type: none"> ➤ Identify the principles, skills and tools of effectiveness. ➤ Apply the work session skills and tools to their lives after the work session.
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Description of the Practice

Paradigms and Principles - Here, Covey introduces the basic foundation for the creation of the habits.

- **Private Victory** - Here, Covey introduces the *first three habits* intended to take a person from dependence to independence, or one's ability to be self-reliant. You must be able to win your private victories before you can start on your public victories. If you start to win your public victories first, how can you feel good about yourself and still work on habits...
- **Public Victory** - Here, Covey introduces *habits four through six* which are intended to lead to interdependence, the ability to align one's needs and desires with those of other people and create effective relationships.
- **Renewal** - Here, Covey introduces the *final habit* which directs the reader to begin a process of self-improvement.

Habit-1: Be Proactive (Principles of Personal Vision)

The word proactive means that an individual is responsible for his/her own lives. His/her behavior is a function of his decisions, not conditions. We can subordinate feelings to values. We have the initiative and the responsibility to make things happen. Highly proactive people recognize that responsibility. They do not blame on circumstances, conditions, or social conditioning for their behavior. Their behavior is a product of their own conscious choice, based on values, rather than a product of their conditions, based on feeling. Proactive people are still influenced by external stimuli but their response, conscious or unconscious, is a value based choice or response.

Habit-2: Begin with the End in Mind (Principles of Personal Leadership)

Begin today with the image, picture, or paradigm of the end of your life as your frame of reference of the criterion by which everything else is examined. Each part of your life-today's behavior, tomorrow's behavior, next week's behavior, and next month's behavior can be examined in the context of the whole, of what really matters most to you. By keeping that end clearly in mind, you can make certain that whatever you do

on any particular day does not violate the criteria you have defined as supremely important, and that each day of your life contributes in a meaningful way to the vision you have of your life as a whole. To begin with the end in mind means to start with a clear understanding of your destination. It means to know where you're going so that you better understand where you are now and so that the steps you take are always in the right direction.

Habit-3: Put First Things First (Principles of Personal Management)

Habit 1 says that you are the programmer. Habit 2 says to write the program. Habit 3 says to run the program. Living it is primarily a function of our independent will, our self-discipline, our integrity, and commitment not to short-term goals and schedules or to the impulse of the moment, but to the correct principles and our own deepest values, which give meaning and context to our goals, our schedules, and our lives. Organize and execute around priorities.

Habit-4: Think Win-Win (Principles of Interpersonal Leadership)

Win/Win is a frame of mind and heart that constantly seeks mutual benefit in all human interactions. Win/Win means that agreements or solutions are mutually beneficial, mutually satisfying. With a Win/Win solution all parties feel good about the decision and feel committed to the action plan. Win/Win is a belief in a Third Alternative. It's not your way or my way; it's a better way. And if a solution can't be found to benefit both parties they agree to disagree agreeably - No Deal. Anything less than Win/Win in an interdependent reality is a poor second best that will have impact in the long-term relationship. The cost of that impact needs to be carefully considered. If you can't reach a true Win/Win, you're very often better off to go for No Deal.

Habit-5: Seek First to Understand Then to Be Understood (Principles of Empathic Communication)

Listening with the intent to understand is called empathic listening. Empathic listening gets inside another person's frame of reference. You look out through it, you see the world the way they see the world, you understand their paradigm, and you understand how they feel. Empathy is not sympathy. Empathic listening involves much more than registering, reflecting, or even understanding the words that are said. You aren't just listening with your ears, but also with your eyes and your heart.

Empathic listening is so powerful because it gives you accurate data to work with. When you present your own ideas be clear, specific, visual, and most important, contextual in the context of a deep understanding of the other person's paradigms and concerns. You will significantly increase the credibility of your ideas. What you're presenting may even be different from what you had originally thought because in your effort to understand, you learned.

Habit-6: Synergize (Principles of Creative Cooperation)

Synergy is the essence of principle-centered leadership. It catalyzes, unifies, and unleashes the greatest power within people. Simply defined, it meant that the whole is greater than the sum of its parts. Without doubt, you have to leave the comfort zone of base camp and confront an entirely new and unknown wilderness. You become a trailblazer, a pathfinder. You open new possibilities, new territories, new continents, so that others can follow. The essence of synergy is to value differences to respect them, to build on strengths, to compensate for weaknesses.

Habit-7: Sharpen the Saw (Principles of Balanced Self-Renewal)

Habit 7 is preserving and enhancing the greatest asset you have. It's renewing the four dimensions of your nature i.e. physical, spiritual, mental, and social/emotional. Express all 4 motivations. Exercise all four dimensions of our nature regularly and consistently in wise and balanced ways. This is the single most powerful investment we can ever make in life the investment in ourselves. We are the instruments of our own performance and we need to recognize the importance of taking time to regularly sharpen the saw in all four ways.

The surveyed teacher Education Institution was following the under mentioned process for inculcating and developing values amongst the student-teachers,

- Thinking by our own self
- Where you can improve and feel the change through 7 habits of life skills
- How can we change?
- What were you able to do? Why?
- Progress
- Work
- How did you change?

To effect change one must assess personal principles and paradigms that run deeply within a person. Principles and paradigms govern a person so an honest and careful assessment is called for.

Practice Context & the Need Addressed

The effort was to create learners who are equipped with accurate, objective and scientific knowledge, attitudes, value and Life Skills. These will help young learners to make informed decisions, solve problems, think creatively and critically, communicate effectively, build healthy relationships, empathise with others, cope with challenges and manage their lives in a healthy and productive manner. It includes enhancement of psychosocial competencies and interpersonal skills that help an individual to make decisions, solve his/her problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others, and manage their lives in a healthy and productive manner.

Sources & Resources Required

- Willingness of Teacher Educators
- A good Time Management

Voices of Student-Teachers

It was found that the seven habits that helped the student teachers as well as organizers to achieve continuous better results by focusing on making individuals and leaders more effective. The student-teachers gained hands-on experience by applying timeless principles that gave greater productivity, improved communication, strengthened relationships, increased influence, and focused on critical priorities.

The Teacher Educators opined that half the student teachers showed their interest by taking initiative, many of them felt that it was tough issues to think.

Moreover, for student teachers it was an opportunity to know themselves and based on that to gather feedback and report from their peers, Educators, who worked closely enough with them to accurately assess their individual effectiveness.

Practice Outcome

Habit 1, 2 and 3 helps a person to move from a state of dependence to independence because it involves knowing of the self. The first three habits pertain to personal

success that nurtures character growth. An individual first feel worthy and capable of becoming independent before he/she can become truly independent. This reinforces the inside and outside approach to effectiveness.

As a person becomes more independent, he/she can move to 4, 5, and 6 which are more concerned with personal success and more personality oriented aspects of interpersonal communication. Understanding first six habits is important in order for a person to manage his/her growth towards effectiveness.

Habit 7 is an all - encompassing habit. It pertains to all the first six habits in an attempt for a continuous personal improvement that will enable a person to become better. It pushes an individual to new levels of understanding and thinking.

The seven habits of life skills by Stephen Covey groomed the student-teachers on life skills to lead happy, healthy, full, and meaningful life.

Innovativeness of the Practice

Through execution of all these skills, the institution provides various healthy experiences to all the student-teachers to participate actively within themselves for the growth and development which enables them to cater today's diverse needs.

Requirements for Adoption and Adaptation

- The continuation of the seven week planning for this practice needs to be focused on daily activities instead of weekly activities.
- The surveyed teacher education institution divided the task of different seven skills to seven teacher educator.
- Reference, Practice & Skills Cards that focus on practicing the values and applies materials on it.
- The seven habits Guidebook that (182 - pages manual) is beautifully designed with examples and exercises that continue to enhance the learning process after the workshop is over. In this book, Stephen Covey talks about powerful lessons in personal change and argues that the personal premise towards the path to effectiveness starts from within.

Innovative Practice_20: Community Work Participation: Reaching to Community through different Mode

Preliminary

Community work is an important practice in Teacher Education programmes. The purpose is to train the teacher trainees, in various aspects of community activities. They are to be acquainted with the problems faced by community and trained to tackle such problems. This includes community education, health awareness, awareness about sanitation, cleanliness, awareness about agriculture & horticulture, folk lores & mores. The student-teachers are expected to undertake programmes for educating community members in the area such as population education, national integration and peace & harmony. This type of practice requires flexibility in the Teacher Education programmes. This can be undertaken both in urban and in rural situations.

Objective of the Practice

- To train the student-teachers in various aspects of community development.
- To bring awareness about social values and evils.
- To reach to the community for the better development of the society.
- To develop a positive image and a greater sense of identity within the community.
- To encourage student-teachers to develop awareness and understanding of civic responsibility.

Description of the Practice

One of the surveyed Teacher Education institutions has adopted different kinds of activities to reach the community

- Sarvadharm Mela

Various religious and national festivals are celebrated at the Teacher Education institute to spread the message of patriotism and sacrifice, peace and progress.

On 5th September that is on the eve of Teacher's Sarvadharm Mela is celebrated. In Sarvadharm Mela stalls and models representing in different regions and religions are made at the institute to spread the message of

humanity & brotherhood. The Mela is constituted of the student-teachers from the Teacher Education Institutions & Schools students of surroundings places. This practice aims at bringing a feeling of communal harmony among student-teachers which they may spread among students.

➤ Work Experience / SUPW

Student-teachers prepare teaching aids in the institution. After preparing teaching aids the student-teacher use these during practice teaching phase, and at the end of practice teaching the aids are submitted in the school so that school teacher can use.

➤ Adoption of Sapling

The institute grows saplings and adopts these for the whole year. They take care of it till it grows. Under the Government Scheme institution is getting 100 saplings free every year. Tree plantation programme is held during both the block teaching phases in the respective schools.

➤ Puppet Show

The surveyed Teacher Education institute taught the student-teachers to use toys and puppets to put up a show to interact with the rural kids. After learning this in the institute the student-teacher exhibit a new puppet show in the village either to teach rhymes, songs to rural kids or to bring about awareness about some good habits.

➤ Street Plays

To bring value awareness as well as to eradicate social evils, like, Andhshraddha Nivaran, Street Plays are performed at the villages and rural areas.

➤ Distribution of Clothes

One of the service institutes collects 500 pair of clothes every year and distributes them to the downtrodden people of the surrounding villages and other parts of the district.

➤ Shaksharta Abhiyan

The institute asked the student-teachers to make posters and banners on importance of literacy and carry those posters in a rally. Apart from this one student-teacher had to teach an illiterate person to read & write under the mission, each one teach one. The practice was to make the student-teachers

aware about the illiterate people & to sensitise them about their role in spreading literacy.

Practice Context & the Need Addressed

Community participation not only increases ownership but also empowers communities to take important decisions concerning the future of their children.

The curricular, co-curricular and extra-curricular activities provide varied learning experiences which develop student-teachers' communicative skills and social skills.

The different activities to reach the community are not limited to institution but the institution can collaborate with various Government, Non-Government and Spiritual Organization for effective community programs.

By participating in such activities student-teacher build bonds with each other, as well as, with community members. These bonds can enhance their interpersonal skills and increase their social network. Such practices may increase the desire of the student-teachers to become part of some social organizations working for community. Another major benefit of volunteering is the feeling of social connectedness which is disappearing from our increasingly segmented society, i.e., trust, cooperation, and citizenship. It also enhances their political and civic awareness. These practices provide exposure to diversity, multiculturalism, opportunities for critical thinking and problem solving.

After two days of Sarvadharm Mela the institute celebrates a whole week, named, SPANDAN where various co-curricular activities, like, distribution of clothes to the downtrodden, lectures and community work and Yoga demonstration were held.

Sources & Resources Required

- A well experienced person to guide & direct the student-teacher for the activities.
- Time and material resources.
- Financial assistance for study tour and in house training of student- teachers.
- Other resources are essentially in the form of organizational support to provide the flexibility to carry out the daily academic as well as the extra-curricular activities.

Voices of Student-Teachers

Both faculty and student-teachers have reported that the learning experience through community participation strengthened their sense of personal effectiveness, which is often translated into an increased sense of civic responsibility.

For example, many student-teachers described that community participation activities impacted the ways they viewed the community and the world. They often re-evaluated some previously held beliefs and attitudes. As one student-teacher stated, one of the student-teacher had a belief that there were no homeless people, but during community participation realised that the belief was wrong. Another student-teacher was of the view that people did not want to bring change but during community participation it was realised that people want to change but lack of awareness and their life condition hinder the change. The faculty also highlighted that the student-teachers felt a sense of empowerment through their involvement in the community.

Moreover, it was voiced that through participating in community work the student-teachers could increase the sense of social responsibility, and a subsequent desire to give back to the communities.

Practice Outcome

Here two factors have increased the practice effectiveness i.e. the networking among institutions and individuals in various aspects of the activities and the team approach of the student-teachers.

From the interviews of Teacher Educators, it was obvious that the community participation work experience often exposed student-teachers to “things that they might never have experienced before.”

Further they expressed that the student-teachers’ awareness of the world around them and the community outside of the college campus enhanced.

Plate_12: Participation of Student-Teachers in Community Work

	
<p>Saksharta Abhiyan Rally</p>	<p>Blood Donation Camp</p>
	
<p>Distibuting Clothes</p>	<p>Collection of Clothes</p>
	
<p>Tree Plantation in School during Practice Teaching</p>	<p>Rural Community Immersed in Puppet Show</p>

	
<p>Programme for Visually Impaired Children</p>	<p>Visits to a Rural Areas</p>
	
<p>Children Learning Ryms by Acting</p>	<p>Puppet Show</p>
	
<p>Disply of one of the Dharma</p>	<p>Community During Mela</p>

Innovativeness of the Practice

Through execution of all these activities, the institution provides various field experiences to all the student-teachers to participate for the growth and development of community which enables them to cater today's diverse needs.

Requirements for Adoption and Adaptation

The student-teachers are expected to

- be punctual
- dress up well as per the nature of duties.
- act professionally.
- respect the views of community members.
- listen the instructions carefully.
- do the jobs to the best of their ability.
- observe confidentiality whenever required.

The Teacher Educators are expected to support, guide and facilitate the organization of various activities and participate & act as a source of learning experiences. Further, they ought to be active humanistic participants in the entire process without dominating and hurting any individual.

Innovative Practice_21: Gramjeevan Padyatra

Preliminary

It is important to promote harmonious development of Hand, Heart and Head, which enriches the personality of student-teachers. Our nation is in dire need of disciplined citizens having integrity. The deterioration and degradation in the society can be set right only by students who are physically, emotionally and intellectually well trained. The practice oriented curriculum introduced by one of the surveyed institutions therefore consists of: subject oriented, Skill based academic components and value inculcating. This fulfils the expectation of creating socially aware individuals. The institute uplifts in the nearby villages culturally, spiritually and academically.

Objective of the Practice

- To create awareness about the rich heritage of villages amongst the student-teachers.
- To inculcate the right values among the student-teachers.
- To develop a feel of the real life experiences of the villages.

Description of the Practice

As part of the four - days Padyatra held during October 28 to 2 October, all the student-teachers and students of other courses and educators of the institution visited four villages to get familiar with village life. The student-teachers observed each village, and experienced people of different castes, like, Bharwads, Darbars, Koli Patels, Kumbhars, Bhils and analysed the prevailing socio-economic conditions of the villagers. They analysed the reason for Gen-Y preference to stay in towns and cities rather than villages. These points were discussed after the village visit.

For student-teachers, Gandhi Jayanti is a time to act. Far from tweeting or taking the day off, the student-teachers walked into interior villages and talked to people and spread the messages of Gandhiji and tried to understand rural India.

In this padyatra, teams of 10 student-teachers are formed and each team visited four villages. The padyatra programme is being conducted since last three years.

The four basic issues being taken up in villages during the padyatra were literacy, cleanliness, panchayat rights and addiction.

The student-teachers along with the other courses college students began their padyatra from Thursday and continued till Sunday.

Across the globe, people celebrate October 2 differently. But the student-teachers in this institute organised Padyatra and social awareness programme. As part of the celebrations, they wanted to sensitize people about rural life. People from all walks of life - students, academicians and NGO volunteers took part in the padyatra from September 28 to October 2 organised to spread Gandhi's messages at grassroots level.

Student-teachers also performed street plays and prabhat pheri in villages during the padyatra. The student-teachers also met the Sarpanch, other local leaders, Gram Mitra, Talati and talk about the village upliftment programme.

Practice Context & the Need Addressed

In today's scenario people from villages come to cities looking for education and settlements, forgetting their roots. During this padyatra, student-teachers realised their traditional wisdom.

Here in this padyatra it is necessary for each participant to stay in village and have meals at villagers' homes. This gave them a chance to interact with villagers and understand rural life. They developed a perspective on how to integrate these experiences with academics.

Sources & Resources Required

- Provision of rural school teaching for student-teachers will require certain funds to meet journey expenses, material resources for poster presentations, time for planning & execution of the plan.
- Administrative Support and Time Management
- Willingness of Teacher Educators and Student-Teachers










Voices of Student-Teachers

Most of the student-teachers voiced that this helped them to develop greater awareness about the rural community. Further, training in rural schools also made them realise problems of rural schools.

Practice Outcome

The impact of this practice was expressed by one of the student-teachers. He said that it was an encouraging experience. So the student got motivated to extend this initiative on a large scale with the help of Gandhian institutes & NGOs.

Plate_13: Student-Teachers in Gramjeevan Padyatra

		
On Way to Villages	Students with Luggage	PrabhatFeri in Morning times
		
Meeting Aged Women	Discussion on Major Issues	Poster Presentation for Villagers
		
Organizing Games	Taking Notes	Poster Presentation for School students

Innovativeness of the Practice

This practice provides such an environment and revival towards village life to the student-teachers modern education System.

Requirements for Adoption and Adaptation

Life Training and Character Building Education are offered through several activities throughout the day inculcating several values. Right from the time the student-teachers enter the institution, discipline has been part of the institutional culture. Even before the Institute was conferred autonomy, value-based education formed an essential part of the curriculum. The same character building and physical education orientation and value inculcation assumed authentic academic dimensions along with the autonomy state & status. Academic freedom with autonomy allowed their curriculum to become three dimensional: conventional, job-oriented and value-based, enabling the student-teachers to face problems and solve problems not only for the benefit of themselves but for prosperity of fellow-beings. It is a culture cultivating curriculum of discipline that permeates the activities of the student-teachers round the clock. This intertwines and remains as a binding force between the conventional and job-oriented aspects of curriculum. The focus on these three curricular aspects culminates into the holistic advancement in the academic career of student-teachers.

Report of Gramjeevan Padyatra

ગામ: મીઠી વીરડી

ગુજરાત વિદ્યાપીઠમાં ૨ ઓક્ટોબરે ગાંધી જયંતિ નિમિત્તે દર વર્ષે ચાર દિવસીય પદયાત્રા યોજવામાં આવે છે. ચાર દિવસની પદયાત્રામાં વિદ્યાર્થીઓ ગ્રામીણ જીવનથી પરિચિત થાય એ મુખ્ય ઉદ્દેશ્ય હોય છે. પત્રકારત્વ અને સમૂહ પ્રત્યાયન વિભાગમાંથી અમારી ટુકડી નં.૨ માર્ગદર્શક ડૉ. પુનિતાબેન હર્ષે સાથે ૧૦ સભ્યોના સમૂહ સાથે ભાવનગર જિલ્લાના તળાજા તાલુકાનું મીઠી વીરડી, ઘોઘા તાલુકાના લાખણકા, ખડસલિયા અને કોળીયાક આ ચાર ગામોમાં અમે પદયાત્રા કરી હતી.

સૌ પ્રથમ પદયાત્રાનું પહેલું ગામ અને મુકામ એટલે રણમાં મૃગજળ સમું મીઠી વીરડી ગામ. આ મીઠી વીરડી ગામનું નામ સાંભળતાં જ આપ સૌના કાન ચમક્યા હશે. ઘણા લોકોએ આ ગામ વિશે થોડું ઘણું સાંભળ્યું હશે. પરંતુ આ ગામ અત્યારે એટલા માટે સમાચારમાં છે કે ત્યાં અણુ વિદ્યુત મથક નાંખવાની તૈયારી ચાલી રહી છે અને તેના માટે ગામના અને આજુબાજુના ગામના લોકો પણ તેનો વિરોધ કરી રહ્યા છે. દરિયા કિનારે આવેલું આ ગામ ખરેખર ખુબ જ રમણીય અને મનમોહક છે. આ ગામમાં સરપંચ શંભુભાઈ અને તલાટી અશોકભાઈ જેઠવા છે. આ ગામ ૩૦૦૦ થી વધારે માનવ વસ્તી ધરાવે છે. ગામમાં એક પ્રાથમિક, બે માધ્યમિક અને ઉચ્ચતર માધ્યમિક શાળાની સુવિધા ઉપલબ્ધ છે. છેલ્લા છ વર્ષથી ગામમાં શિક્ષણનું પ્રમાણ પણ ૮૦ % જેટલું છે. ઔદ્યોગિક ક્ષેત્રે જોઈએ તો ગામમાં હીરાના ૧૦ જેટલા કારખાના અને ૩ પાટીના કારખાના છે. ૧૦ % લોકો અલંગમાંથી રોજગારી મેળવે છે. તેઓ મુખ્યત્વે શીપ બ્રેકિંગ ચાર્ડમાં કામ કરે છે. ત્યાં થતા પાકમાં સફરજન અને સ્ટ્રોબેરીને બાદ કરતા બધા જ પાક લઈ શકાય તેવી ફળદ્રુપ જમીન છે. તો પણ મુખ્ય પાકોમાં બાજરી, મગફળી, કપાસ, ડુંગળી, ચીકુના અને આંબાના બગીચાઓ આવેલા છે.

મીઠી વીરડીની પૂર્વે નાના વીરડા આવેલા છે તેમાં દરિયાના પાણીને મીઠું બનાવવામાં આવે છે. ગામની જમીન રેતાળ અને લાલાશ પડતી છે. અહીં ફૂવાના પાણીના સ્તર ઊંચા હોવાને કારણે અહીં બોરના પાણીનો ઉપયોગ કરવામાં આવતો નથી. આ સિવાય અહીં શેત્રુંજય નહેરને કારણે ખેતરમાં સિંચાઈ કરવામાં આવે છે. આ ગામમાં એક દંતકથા પ્રમાણે અહીં પાંડવો વસવાટ કરી ચુક્યા છે. જેમાં ભીમ જે ખાટલામાં સુતો હતો તેના ચાર પાયાં મળી આવ્યા છે. તો બીજી બાજુ એમ પણ કહેવાય છે કે પહેલા દરિયો ગામ સુધી વિસ્તરેલો હતો. ત્યારે આ ગામ અસ્તિત્વમાં નહોતું. તે સમયે અહીં જહાજ લાંગરવા માટે આ વિશાળકાય અને અસ્સલ ખાટલાના પાયાં જેવા ચાર મજબૂત પથ્થરોનો ઉપયોગ કરતા હતા.

અમારી રહેવાની વ્યવસ્થા સરસ્વતી માધ્યમિક શાળામાં કરવામાં આવી હતી. ગ્રામીણ દ્રષ્ટીએ આ ગામ ભલે ભાવનગરમાં છેલ્લે આવેલ હોય પરંતુ ત્યાં હજુ પણ ભીમજીભાઈ જેવા શિક્ષક હયાત છે જે બાળકોને રમતા રમતા અને અનુકુળ સમયે શિક્ષણ આપે છે. આ શાળાની રચના જોઈ આપણને પૌરાણિક સમયનો આશ્રમ યાદ આવી જાય. અહીં ચોતરફ બસ હરિયાળી જ હરિયાળી. અહીં શાળામાં કોઈ નિયમ ફરજિયાત હોતા નથી. વિદ્યાર્થીઓ પોતાને જ્યારે ઈચ્છા હોય ત્યારે ઉઠે, લખે અને પોતાની દિનચર્યાની શરૂઆત કરી શકે. અહીં બાળકો સવારમાં ૫ વાગે ઉઠી જાય છે. અને સવારમાં હળવી કસરત અને ત્યાર બાદ કુદરતી વાતાવરણમાં વાંચન કરે છે. અહીં શાળામાં સવારે ૧૦:૩૦ કલાકે સુમધુર પ્રાર્થના કરવામાં આવે છે અને ત્યાર બાદ શૈક્ષણિક

કાર્યની શરૂઆત થાય છે. સવારના સમયે વિદ્યાર્થીઓ વાંચતા હોય, સૂર્યના સોનેરી કિરણો તેમને આખા દિવસની ઉર્જા પૂરી પડતા હોય, અને સાથે જ સમુદ્રના અફળાતા જળમાંથી જાણે સુમધુર સ્વર સંભળતો હોય તેવું પણ લાગે ત્યારે અહીં એવો અહેસાસ થાય કે કુદરતની બધી જ કૃપા અહીં જ વરસી હોય. અમે આ વિદ્યાર્થીઓ સાથે શિક્ષણને લગતી વાતચીત કરી. અને અવનવી રમતો પણ રમ્યા હતા. સાંજના સમયે ગામમાં જ્યાં ગરબાનું આયોજન થાય છે ત્યાં પોસ્ટર પ્રદર્શન રાખવામાં આવ્યું હતું. આ જોઈને ગામના ઘણા બધા લોકોએ પોતાનો વિચાર અમારી સમક્ષ મુક્યો અને જણાવ્યું કે આ આંદોલન ત્યાં સુધી ચાલશે જ્યાં સુધી અમે જીવતા છીએ.

આજે શહેર બધી જ રીતે આગળ વધી ચુક્યું હોય પણ ગામ જેટલું નિસ્વાર્થ તો નથી જ. અહીં એક એવી વ્યક્તિની વાત કરવા જઈ રહ્યો છું જેમનું નામ અરવિંદ ભાઈ છે. જે પોતે ખેડૂત છે. અમારી મુલાકાત તેમની મોટરસાઇકલ પર થઈ હતી. તો પણ આ વ્યક્તિએ અમારી બધી જ વ્યવસ્થા કરી આપી હતી. ટ્રેનમાં હતા ત્યારથી લઈને તેમના ગામ પહોંચ્યા ત્યાં સુધી તેમના ઘણી બધી વખત ફોન આવી ચુક્યા હતા. આને શું કહેવાય ? તેમને મારી પાસેથી કઈ જ લેવાનું નહોતું. છતાં પણ તેમણે અમારી બધી જ જાતની દેખભાળ રાખી. આના પરિણામે જ્યારે એ ગામ છોડી બીજા ગામ જવાનું થયું ત્યારે આંખ જરા ભીની બની હતી. આથી એક વાક્ય હમેશા યાદ આવી જાય છે માણસ પોતાની માણસાઈ હજી ભૂલ્યો નથી.

મીઠી વીરડી ગામ ખરેખર આ ચાર ગામ પૈકીનું સૌથી મીઠું ગામ બની રહ્યું. આ ગામ છોડ્યા પછી પણ તેના જ વિચારો ધૂમતા હતા. પરંતુ અમારે બીજા ગામ તરફ પ્રયાણ કરવાનું હોવાથી અમે તે ગામની વિદાય લીધી.

ગામ: લાખણકા

લાખણકા ગામ મીઠી વીરડીથી ૫ કિમીના અંતરે આવેલ છે. જે ભાવનગર જિલ્લાના ઘોઘા તાલુકામાં આવેલ છે. આ ગામની માનવવસ્તી ૫૫૦૦ થી ૬૦૦૦ ની આસપાસ છે. આ ગામથી દરિયો ૧ થી ૨ કિમીના અંતરે આવેલ છે. આ ગામમાં બે પ્રાથમિક શાળા આવેલ છે. દેવજી ભાઈ બારૈયા ત્યાંના સરપંચ છે અને છગનભાઈ ઉપસરપંચ છે. અહીં પણ દરિયો નજીક હોવા છતાં પીવાનું પાણી મીઠું છે. અહીં પણ કુવામાં પાણીનું સ્તર ઊંચું રહેવાને કારણે બોરનો ઉપયોગ કરવામાં આવતો નથી. અહીં પણ શેત્રુંજય નહેરનું પાણી આવે છે. આના કારણે અહીં પણ બધા જ પાક લઈ શકાય છે. અહીં થતા પાકમાં મુખ્યત્વે કપાસ, બાજરી, જુવાર, ડુંગળી, મગફળી અને આંબા અને ચીકુના બગીચા આવેલા છે. અહીં પણ જમીન રેતાળ અને લાલાશ પડતી છે. આ ગામમાં ૭૫૦ હેક્ટર જમીન આવેલી છે. અહીં થતી ઉપજ અને પ્રાકૃતિક સંપદાને કારણે જમીનના ભાવ પણ સારા મળે છે. જમીનના એક વીધાના ૫ થી ૭ લાખ રૂપિયા છે. આનું કારણ એ છે કે આ એક વીધામાંથી ખેડૂત દર સિઝને લગભગ ૨ લાખ રૂપિયા મેળવી શકે છે. અહીં બેટોનાઇટ અને લિઝાઇટ મળી આવે છે. આ ગામમાં પણ હીરાના ૧૫ થી ૨૦ કારખાના આવેલા છે. જેમાં સ્થાનિક લોકોની સાથે આજુબાજુના લોકો પણ સંકળાયેલા છે. ગામના સ્થાનિક માણસો કોઈ મત્સ્યઉદ્યોગ સાથે સંકળાયેલ નથી પરંતુ બીજા ગામના લોકો તેમાં જોડાયેલ છે. અહીં કુદરતે બધીજ કૃપા વરસાવી છે પરંતુ માનવ દ્વારા અહીં કેટલીક પાયાની જરૂરિયાતોનો હજી પણ ત્યાં અભાવ જોવા મળે છે. જેમાં દવાખાનાની વ્યવસ્થા, પોલીસ સ્ટેશન, માધ્યમિક

શાળાની અછત, ઉચ્ચ શિક્ષણનો અભાવ, વાહનવ્યવહારની અસુવિધા, રોડ-રસ્તા, વીજળીની સમસ્યા, સ્ત્રીઓ પ્રત્યે જોવા મળતી ઉદાસીનતા વગેરેને ગણાવી શકાય.

લાખણકા ગામ પ્રાકૃતિક સંપદાઓથી ભરપૂર છે. અહીં લોકો નવરાત્રી, જન્માષ્ટમી, માતાજીના તહેવારો અને માતાજીમાં વધુ માનનારા લોકો ત્યાં વધુ રહે છે. આ ગામમાં પણ સરપંચ સાથે માત્ર ફોન પર જ વાત થઈ હતી. પ્રત્યક્ષ સંપર્ક થયો ના હોવા છતાં પણ ગામમાં બધી જ વ્યવસ્થા કરવામાં આવી હતી. એક વાત તો હમેશા યાદ રહી જશે કે આ ગામમાં જે આદર સત્કાર અને પ્રેમ મળ્યો છે તે કદાચ ક્યારેય બીજા ગામમાં જોવા મળ્યો નથી. ભગવાને અમને તક આપી કે આ પૃથ્વી પરના નાના ટાપુ જેવા ગામમાં જવાની રજા આપી. બાકી દરિયો દુરથી તો ઘણી વખત નિહાળ્યો હશે પરંતુ આટલી નજીકથી નીરખવાની તક પ્રથમ વાર પ્રાપ્ત થઈ. ગામના લોકો પણ મદદરૂપ અને માહિતી આપનાર બન્યા. તેઓનો વિરોધ હતો કે અમારા ગામની બાજુમાં પ્લાન્ટ તો જીવતે જીવ ક્યારેય નહિ સ્થપાવા દે. તેના કારણે તેમણે જે કિંમત ચુકવવાની થશે તે ચુકવવા તેઓ તૈયાર છે. અહીં પણ રાત્રીના સમયે ગરબાના સ્થળે પોસ્ટર પ્રદર્શન કરવામાં આવ્યું અને તેમાંથી અનેક પ્રશ્નો ઉભા થયા અને અમને પણ ખ્યાલ આવ્યો કે આ ગામ અને બીજા ગામની શું સમસ્યા છે.

ગામ: ખડસલિયા

ખડસલિયા ગામનું નામ પહેલા ટીંબા હતું. પરંતુ થોડેક દુરના સ્થળે મરકી નામનો રોગ લાગુ પડ્યો હતો. તેના કારણે અનેક લોકો મોતને ભેટ્યા હતા. આથી આ ગામના લોકોએ સ્થળાંતર કરવાની ફરજ પડી. તેમાંથી તે લોકો ખસેડાયા તેથી ગામનું નામ પણ ખડસલિયા રાખવામાં આવ્યું. ગામની વસ્તી ૭૫૦૦ જેટલી છે. આ ગામમાં પણ દરિયા કિનારો ખુબ જ નજીક છે. છતાં પણ પીવાનું પાણી એકદમ મીઠું છે. પરંતુ થોડાક સમયથી તે પાણીમાં કોલસાનું પ્રમાણ વધવા લાગ્યું છે. આના કારણે ભવિષ્યમાં ઘણી બધી તકલીફોનો સામનો કરવો પડશે. અહીં જમીન રેતાળ અને લાલાશ પડતી છે. અહીં મત્સ્ય ઉદ્યોગ ચાલે છે પરંતુ તેમાં કોઈ સ્થાનિક લોકો તેની સાથે સંકળાયેલ નથી. જીવણભાઈ ડાભી ગામના સરપંચ અને દેસાઈ ગનુબેન આપાભાઈ ઉપસરપંચ છે. આ ગામની જમીનમાંથી બેંટોનાઈટ અને લિઝનાઈટ સારા પ્રમાણમાં મળી આવે છે. અત્યારે અહીં લિઝનાઈટનું કામકાજ ચાલુ છે. તેના કારણે ગામના પીવાના પાણીમાં કોલસો જોવા મળે છે. રાત્રે જ્યારે પાણી કે બીજી વસ્તુ બહાર મૂકી હોય તો તેના પર કોલસાની યાદર ફરી વળે છે. આના પરિણામે એવી આશંકા સેવાઈ રહી છે કે નજીકના સમયમાં આ ગામમાં પીવાલાયક પાણી ખરું બની જશે. અહીં રવિ પાકમાં ઘઉં, બાજરી, જુવાર અને ખરીફ પાકમાં મગફળી, કપાસ, ડુંગળી, એરંડાનું વાવેતર કરવામાં આવે છે. અહીં ગામમાં ૩ શાળાઓ આવેલી છે. જેમાં પોસ્ટર પ્રદર્શન કરવામાં આવ્યું હતું. જેમાં બાળકો અને વિદ્યાર્થીઓ સાથે અનેક રમતો રમ્યા અને બીજી ઘણી બધી પ્રવૃત્તિઓ કરવામાં આવી હતી. બાળગીતો, અભિનય ગીતો, ગાંધીજી વિશેની વાતો, સ્વચ્છતા, વ્યસનમુક્તિ, સફાઈ જેવા વિષયો સાથે ચર્ચા કરવામાં આવી હતી.

ગામ: કોળીયાક

આખરે પદયાત્રાના અંતિમ દિવસે અને છેલ્લા મુકામે અમે પહોંચી ગયા હતા. કોળીયાક ગામ ભાવનગરથી ૨૦ કિમીના અંતરે આવેલ છે. ત્યાંથી દરિયા કિનારો ૨ કિમી જેટલો દુર છે. કોળીયાકમાં સરપંચ ખેતાભાઈ ભરવાડ છે. અને તલાટી અમિતભાઈ છે. અમારી રહેવાની વ્યવસ્થા શ્રી લલીતાબાઈ કન્યાશાળામાં કરવામાં આવી હતી. તેના આચાર્ય રમીલાબેન હતા. આ શાળામાં પણ ખુબ જ મજા આવે તેવું વાતાવરણ હતું. અહીં તે સમયે વિદ્યાર્થીઓ સમક્ષ પોતાના વિચારો શિક્ષક દ્વારા રજુ કરવામાં આવતા હતા. ત્યાર બાદ અમે બાળકોને ગુજરાત વિદ્યાપીઠ શું છે , અમે કોણ છીએ તેની માહિતી આપી. અહીં બીજી ત્રણ શાળા પણ છે. આ શાળાઓમાં લગભગ ૪૫-૫૦ શિક્ષકોનો સમાવેશ થાય છે.અહીં ખેતી લાયક જમીન પણ આવેલી છે. જેમાં કપાસ, મગફળી, જુવાર અને બાજરી થાય છે. અહીં જમીન કાળી અને રેતાળ છે. અહીં પણ કુવામાંના પાણી અને શેત્રુંજય નહેર દ્વારા સિંચાઈ કરવામાં આવે છે. અત્યારે ઘણા સમયથી અહીંનું પાણી પીવાલાયક રહ્યું નથી. પાણીમાં ખારાશની માત્ર ખુબ જ વધી જવા પામી છે. તેના કારણે નર્મદાના પાણીનો પીવાના પાણીમાં ઉપયોગ કરવામાં આવે છે.

ગામની માનવવસ્તી ૮૦૦૦ જેટલી છે. જેમાં મુખ્યત્વે કોળી, કુંભાર મુખ્ય છે. ત્યાર બાદ ભરવાડ, બ્રાહ્મણ અને બીજા લોકો રહે છે. આ ગામનું નામ કોળીયાક એટલા માટે રાખવામાં આવ્યું હશે કારણકે અહીં કોળીની વસ્તી વધારે છે. પહેલા ગામનું નામ ગુંદી કોટા હતું. આ ગામમાં જોવાલાયક સ્થળોમાં નિષ્કલંક મહાદેવ, દરિયાકિનારો અને રજવાડાની પંચાયત આવેલી છે. નિષ્કલંક મહાદેવ મંદિર એટલે દરિયા વચ્ચેનું સ્થાપત્ય. અહીં એક દંતકથા સંકળાયેલી છે. તે આ મુજબ છે : કુરુક્ષેત્રના મેદાનમાં કૌરવો અને પાંડવો વચ્ચે યુદ્ધ થયું હતું. જેમાં પાંડવોના હાથે બધા જ કૌરવોનો નાશ થયો હતો. આના કારણે તેમના પર કલંક લાગ્યું હતું. આથી શ્રી કૃષ્ણ ભગવાને પાંડવોને એક કાળી ધજા આપીને જણાવ્યું કે આ ધજા જે સ્થળે સફેદ થઈ જાય ત્યાં થોડોક સમય રોકી ભગવાન મહાદેવની સ્થાપના કરવી.

આમ આપેલ આજ્ઞાનું પાલન કરવા અને કલંક દુર કરવા પાંડવો અહીં પહોંચ્યા અને શરત પ્રમાણે તેમણે ભગવાન મહાદેવની સ્થાપના કરી તેમની પૂજા અર્ચના કરી. આ કથા ઘણા સમયથી ચાલી આવે છે. આ મંદિર દરિયાની વચ્ચે આવેલ છે. ૨૪ કલાકમાં બે વખત દરિયાના પાણી પાછા ચાલ્યા જાય છે અને તે સ્થળે પૂજા કરવામાં આવે છે. ત્યાર બાદ આ મંદિર દરિયાના પાણીથી ઘેરાઈ જાય છે. ત્યારે એવું લાગે કે જાણે દરિયાદેવ ભગવાનના ચરણને પોતાના જળ વડે પખાળતા હોય.

આ સ્થળેથી લિઝનાઈટ અને બેંટોનાઈટ મળી આવે છે. તેમાં લિઝનાઈટની રોજ ૧૦૦ જેટલી ટ્રકો ભરાય છે. કોળીયાકથી ૫ કિમી દુર પાવરહાઉસ સ્થાપવામાં આવ્યું છે. ૨૫ ગામોની વચ્ચે એક સી.આર.સી. હોસ્પિટલ આવેલ છે. જેમાં પણ ૨ એમ.બી.બી.એસ. અને ૧૪ નર્સ સાથેનો કાફલો છે. આ ઉપરાંત ૧૦ ગામો વચ્ચે એક માત્ર પોલીસ સ્ટેશન આવેલ છે. જેમાં પણ માત્ર સામાન્ય હવાલદાર છે. એસ.પી. અને પોલીસ ઇન્સ્પેક્ટરની જગ્યા ખાલી છે.

ભાદરવી અમાસનો શંભુ મેળો અહીં ભરાય છે. ૫ લાખથી વધારે લોકો આમાં ઉમટે છે. માત્ર ગુજરાત જ નહિ પરંતુ તમિલનાડુ અને મહારાષ્ટ્ર વગેરે જેવા લગભગ ૧૦ રાજ્યોમાંથી આ મેળામાં લોકો આવે છે. આ ઉપરાંત શ્રાવણ માસમાં પણ અહીં નાહવા માટે લાખો લોકો આવે છે. ઋષિ પંચમીનું પણ અહીં ખુબ જ મહત્વ છે.

આમ, આ ચારેય ગામોની મુલાકાત લઈને ત્યાંના સ્થાનિક લોકોને મળીને સંપર્ક કરીને, ત્યાંના વાતાવરણને અનુકુળ થઈને, દરિયાના મિજાજને પામીને અને તેના અફળાતા નાદ સાથે કંઈક શીખવાની મહેચ્છાથી જે નીકળ્યા હોય એને પદયાત્રા કહેવાય. આ પદયાત્રા દરમિયાન ગામડાનું જીવન. તેની રહેણી કરણી, સંસ્કૃતિથી જાણકાર બન્યા. જેમ અમુક દિવસ માટે કોઈ વસ્તુ સારી લાગે તેમ આ દરિયા કિનારો ચાર- પાંચ દિવસ માટે સારો લાગે પણ કાયમ રહેવાનું થાય ત્યારે જ ખ્યાલ આવે કે સાચી પરિસ્થિતિ શું છે. આપણા માટે સારા દિવસો ત્યાંના લોકો માટે અગવડરૂપ અથવા મુશ્કેલ બની શકે.

Innovative Practice_22: ESPD – English Spoken & Personality Development (All Round Development and Communication Skills)

Preliminary

The practice is aimed to raise the knowledge of English & confidence level of the student-teachers. Under this practice the surveyed institute provides special programs that emphasize on English and Personality Development Program.

The overall aim of this compulsory course is to fully prepare student-teachers for their future career, since after the graduation and post graduation they are likely to seek employment in their professional fields. The institute ensures that their student-teachers are provided the right platforms for nurturing the all round development through integrating various activities.

Objectives of the Practice

The student-teacher will be able to develop

- Communication skill which can be used in various situations.
- Framing of sentences to present well.
- The ability to speak and use words/phrases/idioms/proverbs appropriately
- The correct use of grammar in writing and speaking
- The ability to comprehend the language correctly

Description of the Practice

Since ESPD has been started as a paper for the student-teachers by the institute the description of the practice may be obvious from its syllabus.

Unit 1 Functional Grammar

Understanding various grammatical terms used in language: nouns, pronouns, tenses, adjectives, subject and predicate, preposition and articles

Language functions; introducing oneself in English, making an enquiry, showing direction, describing people, places and one's routine, storytelling, proposing vote of thanks, compering, instructing

Unit 2 Developing Listening and Speaking

Task to develop listening in English; conversation, differentiating sounds, speech, commentary and storytelling

Providing feedback

Developing Speaking -

Tasks for developing speaking; brainstorming, generating and organizing ideas, selecting appropriate media, such as, language, visuals and other sensory mode, role play, debate, oral presentations – extempore, information transfer (story, movies, narrating incidences) tongue twisters, teaching content, drill

Unit 3 Developing Reading

Reading through phonetics, three letter words, silent letter word, five letter word, reading words with specific suffices and prefixes

Reading short stories with proper intonation

Reading different types of materials in English (Newspaper, Advertisement, Notices, Requests, Instructions, Passage, Asking Questions)

Unit 4 Developing Writing

Different strokes for writing effectively, appropriate letter formation, cursive writing, writing text; writing simple sentences, writing short stories, writing short notes, notes, incidences, expressing own ideas and diary writing

Unit 5 Personality Development

- 1.1. Physical appearance; head, face, clothes (manner, colour and style) and footwear
- 1.2. Attitudinal change; positive thinking, self-confidence, body language, time and stress management
- 1.3. Behavioural change; eating habits, greeting people, cleanliness, maintaining hygiene, facing interview, introducing oneself

Practice Context & the Need Addressed

English language has grown extremely in last three decade in terms of accommodating several other non English people. It has let students feel more convenient and expressive. It has also supported the development of science and technology to grow and reach to the many people. So, it is evident that English is not

only a language of science and technology but also reflection of culture, art and social development.

The school management communication is one of the basic competencies which every teacher should have, asserting that the ability to communicate is most important instrument for employment and maintaining successful job performance. The communication skills essential at the workplace, include basic oral skills, writing skills and the ability to communicate in groups with persons of various backgrounds.

Thus, it is essential that the upcoming teachers need to be updated and empowered with the ability to communicate effectively and to develop their personality to grow well with the new development. With this view the English Spoken and Personality Development Program was being included in the B.Ed. programme.

Sources & Resources Required

- Since it is rarely feasible for educators to use a particular textbook. So published material should be made available for the Teacher Educators which would address the needs of student-teachers.
- ESPD Teacher Educators often provide the material for the course. This involves selection of published material, adapting material if it is not suitable, or writing it. So, ESPD teachers also need to assess the usability of the teaching material.
- Continuous Comprehensive Evaluation using appropriate tools & techniques should be done during the whole year for this subject also.

Practice Outcome

The practice created awareness in student-teachers about the various personality aspects like behaving in front of people, way of eating, greeting people etc. Along with that the course also helped in developing the communicative abilities of the student-teachers in English. Since it is a compulsory course, it ensures that all the student-teachers get equal instructions and practice the basics about the personality development and communication.

Voices of Student-Teachers

A large majority of the student-teachers expressed their preference for the use of the multimedia and the audio-visual material in the preparation of the courses by their

English teachers. The use of the audio-visual material shown on LCD, OHP sheets, cassettes and videos used during the English courses has made the teaching advantageous for student-teachers.

They expressed that the group activities and group presentations initiated them into speaking English. The practice started by speaking a few statements in English and later the number of sentences.

Innovativeness of the Course

This practice seems to be innovative since it provides a scope to all the student-teachers. To come at par in communicative ability and personality development, unlike in other institutes, where the communicative abilities and personality attributes are just modelled as exhibited by the Teacher Educators.

Requirements for Adoption and Adaptation

Beyond the boundaries of school, oral communication competence can contribute to individuals' social adjustment and participation in satisfying interpersonal relationships. Indeed, teachers deliver most instructions for classroom procedures orally to students.

Student-teachers need to have considerable flexibility, i.e., willing to listen to learners, take interest in the disciplines and professional activities the students are involved in.

Innovative Practice_23: English for Specific Purposes

Preliminary

The rationale for this practice (English for Specific Purposes) was to help student-teachers familiarize with their goals of learning so that their learning strategies can be effectively directed to the English method.

The overall aim of the course was to fully prepare student-teachers for their future career because after the graduation and post graduation they are likely to seek employment in their professional fields.

By the end of the course, learners should be able to familiarize themselves with professional terms and write competently in English. For example, they should be capable of writing proper letters, e-mails. Moreover, they must have the ability of understanding the research articles and newspapers, carry out basic conversation to maintain relationships with the students.

Objectives of the Course Practice

- To enable the student-teachers to communicate in real life situations
- To enable the student-teachers to use language for different functions
- To enable the student-teachers to read and understand given articles and passages
- To enable the student-teachers to write correctly
- To enable the student-teachers to use appropriate language in the classroom
- To enable the student-teachers to prepare materials for teaching functional English
- To develop competence in using English as a tool for learning in professional contexts
- To develop student-teachers ability to monitor the effectiveness of their use of English in professional contexts.

Description of the Practice

This course provides opportunities to the student-teachers to develop their competence in language learning skills as a basis for optional studies in the Teacher Education programme by enabling them to reflect on the use of English in their current and future learning and identify appropriate strategies for its enhancement.

The aim of the course was to enable student-teachers to develop competence in using English for future purposes and to raise their awareness of the role of English in their current and future learning.

The syllabus of the course provides a deeper understanding about the practice.

Syllabus:

Unit-1 Approaches to Teach English

- a) Teacher centric approaches: Grammar translation and structural approach
- b) Learner centric approaches: Communicative approaches-Notional, situational and Functional Approach
- c) Genesis and principles of Functional Approach

Unit-2 Important Language Functions

- a) Important language functions for daily life: Making requests and inquiries, asking for permission, giving directions, asking for opinions and suggestions, talking about routine, agreeing and disagreeing
- b) Higher level language functions: Narrating stories and events, describing people, places and things, seeking specific information
- c) Teaching Functional English: Role Plays and Skits

Unit-3 Gaining Academic Language Proficiency

- a) Classroom Language
- b) Planning and Conducting School Programmes
- c) Writing Notices and Reports

Unit-4 Preparing Materials for language functions: Practice and Review

- a) Materials to develop speaking and listening skills - Cue Cards, Scrap Books Charts and Models and CDs
- b) Materials to develop reading and writing skills-Zig-Saw-Reading, dictation with a difference, strip story, reading comprehension
- c) Review and Practice

Practice Context & the Need Addressed

If the student-teachers are clear that English is an effective aspect which leads to wider career prospect, they would accept to learn improve their English. However, there were English learners who saw English as relatively less important in their past and many of them took English courses merely for the sake of fulfilling the graduation criteria set by the respective institutes. Through implementing essential

English speaking-learning competency-based approach the surveyed institute intended to improve student-teachers' basic skills towards English teaching & learning.

Sources & Resources Required

It should involve the language teacher specifically preparing learners for the language of subject lectures presentations. Another possibility is that a specialist ensures and comments on the content of teaching materials that the ESP Teacher Educator has prepared. The fullest collaboration is where a subject expert and a language teacher do team teaching in the class.

Resources could be reference books, e-resources, experts in English as human resources.

Voices of Student-Teachers

Student-teachers held strong preference for learning English in their day to day life, as well as, for their professional development. However, they said that they have improved their English during their practice.

It was noted that the majority of the student-teachers were conscious of the importance of this language in their future professional life as well as for the success in their higher education.

During the group activity high achievers helped the weaker ones in terms of framing sentences, improving conversation by giving them practice and thus their bonds became stronger resulting in a positive way of working autonomously even in the absence of their tutor. Further they suggested that everyone in the group should have the opportunity and the encouragement to participate in completing the given.

Practice Outcome

In their future professional career, the student-teachers may find themselves working in a school where English is the medium of communication. So, keeping in mind all these aspects would be beneficial for the student-teachers to enhance their ability in English.

Innovativeness of the Course practice

This practice aims at developing the communication ability of the student-teachers, through various reading materials and daily practice. Here, the focus is to develop the

communication ability of student-teachers in English irrespective of their methods of teaching. Unlike English method classes where the pedagogy of teaching English as a subject is taught, here the speaking ability of the individual student-teachers is focussed which indirectly helps them in their content transaction.

Requirement for Adoption and Adaptation

To enhance the effectiveness of the course language teaching, the language programme must be locally developed so that the curriculum, instruction and assessment can be correlated with each other. It should also have an instructional importance.

During teaching learning process Teacher Educators should think carefully about all the right domains being assessed.

Within this framework, the Teacher Educator can act as motivating factor for learning the academic activities. He/she can convince his student-teachers to develop an interest towards foreign languages and create a mobilizing context for them. His/her cognitive engagement in mastering the language and perseverance will enable him/her thereafter to carry out good performance.

Evaluation of the course design and teaching materials should be done while the course is being taught. Moreover, at the end of the course assessment of learning outcomes should be done to see whether the English learnt was of any utility to the student-teachers or not. Evaluation through discussion and on-going assessment techniques can be done initially to adopt the course.

The role of the teacher will increase from teacher to a designer of the course, resource person, researcher and evaluator. The teacher will have to aim at providing a platform for language improvement that can be learnt for immediate use. He/she should aim at developing programmes that would help the student-teachers to improve the ability of the learners which would be needed for the professional growth. While drafting the projects or assignments for the learners the teacher should plan at making them work separately in small groups. The project/task should involve different types of exercises such as interviewing, talking to the people as if they are in the field, collecting information from the internet, such as, audio-videos, through books and Journals. In present context teacher's role as a researcher becomes most important. He/she has to make teaching material for separate fields as per the levels of the learners.

Innovative Practice_24: Life Skills Education

Preliminary

Life Skills such as, Self-Awareness, Empathy, Inter-Personal Communication, Coping-up with Stress, Coping-up with Emotions, Creative Thinking, Critical Thinking, Decision Making and Problem Solving have been introduced in the School Curricula in India under co-Scholastic areas. So, with the aim to fulfil the demands of School Education one of the surveyed Teacher Education institutions has introduced a separate paper titled “Life Skills Education” Teacher Education curriculum.

Objective of the Course practice

- To understand and implement life skills
- To understand the importance of life skills and quality life
- To develop life skills to prepare oneself for better life
- To prepare tasks for teaching life skills

Description of the Practice

The practice obvious from design of the syllabus:

Syllabus: Semester - 1

Unit 1: Introduction to Life Skills

- a) Life skills
 - Concept
 - Need
- b) Overview of soft skills for quality life
 - Importance
 - Types of life skills
- c) UNESCO Dellor’s Report
 - Focus of Life skills

Unit 2: The concept of life skills

- a) Human values and life skills
- b) Life skills as proposed and defined by WHO (1990)
- c) Indian view of life skills

Unit 3: Core life skills

- a) Communication skills and empathy
- b) Decision making skills
- c) Problem solving skills and thinking skills

Syllabus: Semester – 2 (Life Skills Education for Quality of Life)

The student-teacher will be able to

- prepare tasks to teach life skills
- understand the human values at global level and utilize locally
- understand ancient and classical life skills with reference to education

Unit - 1: The Concept of Quality of Life

- a) The ancient and classical view of Quality of Life
- b) The contemporary view of Quality of life (by Amartya Sen)
- c) Analysis of selected aims and definitions of education with reference to Quality of Life

Unit - 2: Understanding life skills for Adolescent students

- a) Life skills for adolescent students: concept, need and importance
- b) Teaching life skills to adolescent students: techniques and activities
- c) Planning activities to teach life skills: practical work

Unit - 3: Learning and Practicing Core Life Skill

- a) Teacher as a role model of life skills
- b) Preparing classroom tasks for teaching life skills
- c) Identifying and analyzing core skills from textbooks of Secondary and Higher Secondary Schools

Practice Context & the Need Addressed

As per the present reforms in school curriculum “Life Skills” have been introduced as a Co-Scholastic area, but the Teacher Education institutions have largely not integrated these skills. So, there is a need to bridge the gap between the requirements of School Education and Teacher Education.

This will help young learners to make informed decisions, solve problems, think creatively and critically, communicate effectively, build healthy relationships,

empathise with others, cope with challenges and manage their lives in a healthy and productive manner. It includes enhancement of psycho-social competencies and interpersonal skills that help an individual to make decisions, solve his/her problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others, and manage their lives in a healthy and productive manner.

The psychological pull and push factors such as the inability to attempt emotional pain, conflicts, frustrations, alcoholism, drug abuse, relationships, rebellion, peer pressure, curiosity and anxieties about the future are often the driving force for high risk behaviour. Life skills training is a valuable tool for empowering the youth to act responsibly, take initiative and take control. It is based on the assumption that when young people are able to rise above emotions arising from daily conflicts and peer pressure, they are less likely to resort to anti social behaviours.

Thus, the entire course is targeted to develop skills and sub skills for the enhancement of skills among student-teachers. The entire paper includes what, why and how of different skills, techniques and approaches which can be utilized in future.

Sources & Resources Required

Suggesting videos, power point presentations, ready to use activities, worksheets and other useful online forums should be prepared for making the student-teachers developed insight and practice in teaching.

Each session can be designed to impart a particular skill, some of the following techniques can be used viz., Group discussions, Brainstorming, Demonstration and guided practice, Role plays, Audio and visual activities e.g., arts - music - theatre - dance, Small groups educational games and simulations, Case studies, Storytelling and organizing Debates. The infrastructural resources and human resources for the above mentioned activities.

Voices of Student-Teachers

The student-teachers expressed that it was a joyfully challenging experience to learn life skills.

Practice Outcome

It developed the confidence of student-teachers in employing life skills in day to day life, instantaneously, easily & precisely.

Innovativeness of the Course practice

Here, the purpose behind introducing this course was to nurture essential skills in the future teachers, so that they can in turn nurture these skills in the school students. The innovativeness of this practice is that life skills which is so essential in present times, is taught as a separate paper for developing awareness about the need and significance of life skills. Unlike the normal B.Ed. curriculum where life skills are indirectly taught in the form of great philosophers' thoughts, this practice directly addresses it.

Requirement for Adoption and Adaptation

Beyond the boundaries of school, oral communication, creative thinking, critical thinking, competencies can contribute to any individuals' social adjustment and participation in satisfying interpersonal relationships.

Thus, teachers need to have considerable flexibility i.e. willingness to listen to learners, take interest in their own disciplines and professional activities, in contrast to the traditional method of teaching where the teacher is only the speaker.

The teaching of life skills requires a learning atmosphere in which an educator can organize active and experiential learning activities.

- It is important that the educator gets training for conducting experiential teaching learning integrated with life skills. He/she should be equipped with a teaching manual that describes life skills lessons.
- The life skills activities require an educator to work with a group over a period of a year to plan such lessons.
- The life skills teaching should have continuity and sequence over time, i.e. life skills lessons should, relate to and build upon the subject specific topics.

Other Healthy Miscellaneous Innovative Practices

From the surveyed Teacher Education Institutions, the researcher came across various healthy miscellaneous practices which were very useful to make Teacher Education programme better.

Table_14: Other Healthy Miscellaneous Innovative Practices

Sr. no	<i>Practice</i>	<i>Practicing institution</i>
1	Dream School Work	School of Science and Education, Navrachna University, Vadodara
2	Demonstration Lessons	Anand College of Education, Anand
3	Using Concept Mapping to Measure Learning Quality	School of Science and Education, Navrachna University, Vadodara
4	Rubric Making	School of Science and Education, Navrachna University, Vadodara
5	Open Educational Resources (OER)	The M. S. University of Baroda, Vadodara & L.N.K College of Education, Patan
6	Compulsory Integration of Smart Board in Practice Teaching Phase	M. N. Shukla College of Education, Ahmedabad
7	Aptitude Testing For Grouping B.Ed. Classroom	Dr H. R. Gajwani College of Education, Bhuj, Kachch
8	Learning by Accessing Answer Sheets in B.Ed. Classroom	Anand College of Education, Anand
9	Training the Student-Teachers to Conduct Online Examination	The New Progressive College of Teachers, Mahesana
10	Giving Opportunities in a Variety of Situations/Schools for Practice Teaching	M. B. Patel College of Education, VV Nagar
11	Visit Method	J. G. College of Education, Ahmedabad
12	Educational Panorama	J. G. College of Education, Ahmedabad

13	Annual Test lessons Excluding Text Book Content	Anand College of Education, Anand
14	Educational Forum	R. H. Patel English Medium B.Ed. College, Gandhinagar
15	Value Week Celebration	Way Made College of Education, VV Nagar
16	Long Distance Off Campus	M. B. Patel College of Education, VV Nagar
17	Code of Conduct: Grooming Sessions	- M. N. Shukla College of Education, Ahmedabad - Navrachna College of Education, Vadodara
18	TAT/TET Sessions	Many Institutions
19	Saasu-Vahu Sammelan	I. J. Patel College of Education, Mogri
20	Self-Regulation	Waymade College of Education, VV Nagar

1. Dream School Work

This practice aimed at exploring the vision of student-teachers about a school. For this, initially they were asked to imagine that if they are given an opportunity to create their own dream school of their own dream, how it would be. The student-teachers were asked to imagine about physical structure of school and the teachers teaching method at the school. The student-teachers were also asked to visualise the mission of their school. How would the classes be taught and who would teach them? Who would go to this school and what would be the schools mission? These were the questions which were asked to the student-teachers in order to trigger their own vision.

Thus Dream School work helped student-teachers to envision all the aspects of a school like physical, emotional, socio-cultural, cultural, interactions amongst teachers - pupils & principal. They were also asked to draw layouts and present it in the class. The layouts included the name of the school, its mission, vision & policies along with

the aspects mentioned above. This practice was bound to develop critical and analytic thinking in student-teachers about various aspects of school.

One of the Dream School Work carried out by one of the student-teachers is given below.

"My ideal school would have interesting and engaging topics. The student would be allowed to eat and move around to keep everyone awake and focused. On nice days they would go outside and learn. There would be testing but when the majority of students fail, we shall go back and take a day to refresh the concept. By the end everyone would have a full understanding of it. We would always have fun!"

The observations revealed that the student-teachers vision of a Dream School incorporated many recurring themes, like student engagement in teaching learning process, better infrastructural & manpower facilities, taking care of students' biological, cognitive and emotional needs. They expressed the need for developing system software where students can voice their own learning. Exploring students' interests, providing clean, safe and organized environment was also the need described by the student-teachers. They also mentioned the need of small class size composed of a diverse student population. Their vision of a school also included creative teachers who care their students and motivate them towards success.

Further, the student-teachers shared that they themselves have learnt by traditional as well as by a less hands-on approach of learning. As a student-teacher they have learnt that one style of learning doesn't work for every student. Being a student-teacher, they desired to work in a school that resembles their dream school. The basic purpose of this activity was to make the student-teachers realise the school imagining an institution of their own creative choice would lead to exploration of new ideas, evoke the passions of the students, and push them towards their true human potential.

2. Demonstration lessons

Demonstration lessons were conducted by calling school students in the Teacher Education College. The school students and the student-teachers both sit in the same classroom. The Teacher Educators teaches subject contents from school text book, employing various skills of teaching. The Teacher Educators exhibit the teacher student interaction while delivering the content to sensitise the student-teachers of the real classroom environment. After the demonstration lesson, the student-teachers and

Teacher Educators assemble in a classroom, where the positive and negative criticism of the demonstration lesson is done by the student-teachers. The practice aimed at making the student-teachers aware of the various behaviours and skills used by the Teacher-Educators in the classroom.

Plate_14: Demonstration Lesson class

	
<p>B.Ed. Classroom waiting for the School Students for Demonstration lessons</p>	<p>B.Ed. Classroom with School Students</p>

Interacting with some of the student-teachers about demonstration lessons, the investigator could gather that this practice could help the student-teachers to learn many skills of teaching and classroom management.

3. Concept Map Making - Using Concept Mapping to measure Learning Quality

This Concept Map making method shows that how concept mapping can be used to measure prior knowledge and how simple mapping exercises can promote the integration of teachers' and students' understandings in ways that are meaningful.

Concept mapping makes learning visible so that the actual quality of the learning that has occurred can be seen and explored. Using concept mapping in the course of teaching means that learning is no longer a complex process, measurable only by proxy, but an observable phenomenon. This practice was conducted in the constructivist classroom. In the constructivist classroom before the actual learning strats, the student-teacher used Concept map to measure the prior knowledge of students on the topic.

Plate_15: Student-Teacher Creating Concept Map



The student-teachers opined that the concept mapping facilitated quick and easy measures of student knowledge so that they could identify the parts of the curriculum that were being conceptualised or not conceptualised.

During the process, some of the student-teachers indicated difficulty in constructing the concept maps. These student-teachers commented that it would have been easier for them to directly design the lesson plans rather than trying to construct a concept map first.

These findings implied that the construction of a concept map during the lesson planning process would help pre-service teachers to be more connected & reflective in their instructional decision making. This is possible even among very large groups at various levels.

4. Rubric Making

Rubric is a scoring tool that describes characteristics of a practice at different levels of performance. Rubrics are designed to help educators and evaluators to develop a consistent, shared understanding of a particular performance being in practice, and to make professional judgments about formative and summative performance ratings on each Standard and overall.

In the surveyed institute, the Rubrics were designed by the student-teachers, while making Digital Lesson Plans. Following is the example one such Rubric designed by one of the student-teachers.

Table_15: Evaluation Rubric Prepared by Student-Teachers

TIME: 1 WEEK

STD: VIII

TOTAL MARKS: 50

SUBJECT: ENGLISH

Sr. No	CRITERIA	5	4	3	2	1	Self Asmnt	Peer Asmnt	Teacher Asmnt	Total
1.	Organization of Content									
2.	Content Relevance (History and Background)									
3.	Content Details									
4.	Analysis of the poem (Critical Appreciation)									
5.	Personal Opinion									
6.	Creative Title									
7.	Theme Appropriateness									
8.	Use of Pictures and Visuals									
9.	Overall Effect of the newsletter									
10.	Individual Contribution /Submission on Time									
	TOTAL									

(Notes: 5 denotes highest marks and 1 denotes lowest marks that can be obtained)

In the same institute, the Teacher Educators also used self-developed Rubric, to evaluate the lessons delivered by student-teachers during simulation and practice teaching phase. The example is given in Appendix_XI.

The Rubric used by the Teacher Educators evaluated student-teachers, while they were working in small groups and also when they were teaching individually. The rubric was designed, such that, it could be applicable to evaluate teachers teaching in pre-primary to higher secondary, as well as teachers in specialized classes. The rubric also had a wider application to evaluate language teachers and educators at DIET or such other institutes.

The rubric helped the evaluators to evaluate themselves and others based on certain indicators depending on their role, responsibilities, professional practices & students' learning needs. When the educators evaluate others they are considered evaluators. For example, high priority Indicators and/or elements can be analyzed in greater depth during self-assessment, targeted during goal setting. However, the expectation is that by the end of the evaluation cycle, educators and evaluators gather and share a reasonable amount of evidence on every Indicator to support the rating on each indicator.

5. Open Educational Resources

Open Educational Resources (OER) are learning and teaching materials, available online for free use. The resources include course modules, lectures, games, teaching materials and assignments. It is available in the form of text, images, audio, video and interactive media.

Teachers, learners and the general public can access and make use of Open Educational Resources, irrespective of their location or affiliation with any particular institution. Open Educational Resources are shared via the Websites of Education Providers and through Public Services like Blog, Slide Share, YouTube and other media.

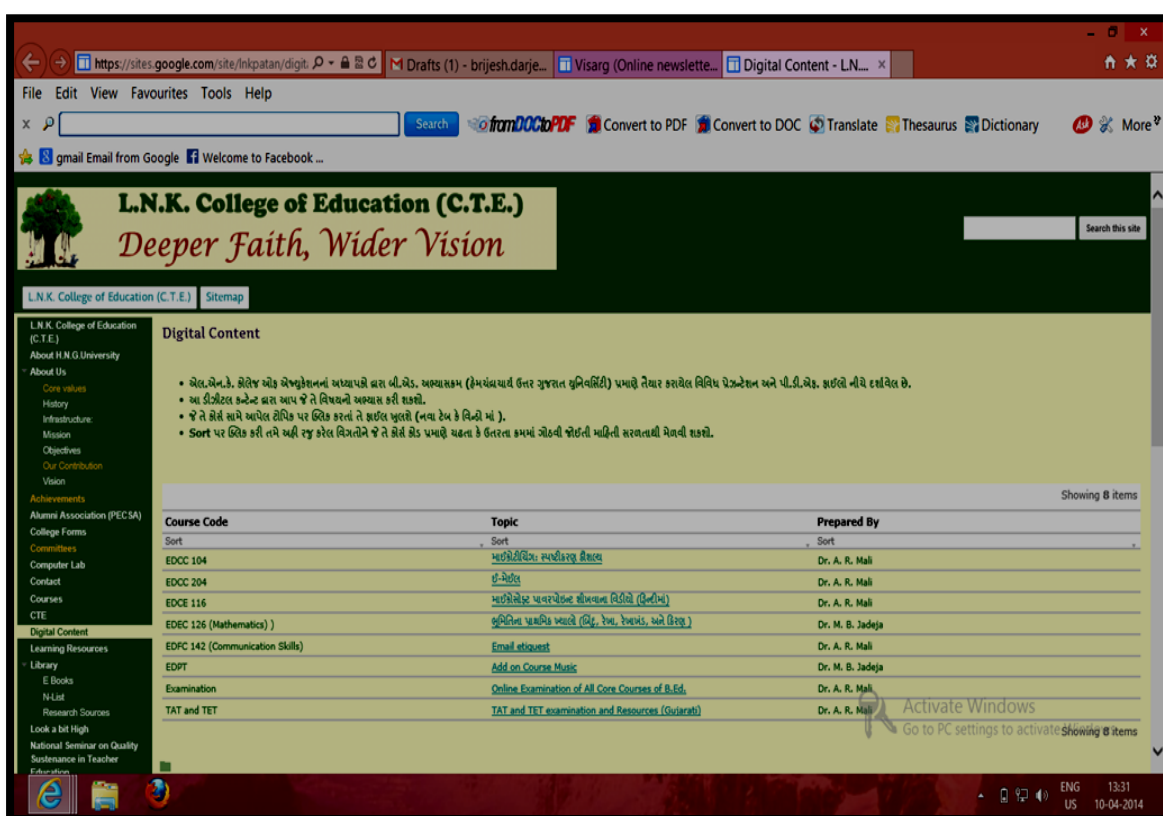
Any Institution/Individuals/Faculty and organisations can create and share their own Open Educational Resources on this media. Once it is released, the resources can be used by the learner, reused by a teacher, remixed with other resources or to create new educational materials. While it is not essential to embrace all aspects - release, use, reuse, involvement with one aspect tends to lead naturally to another.

Indira Gandhi National Open University (IGNOU) is the largest institution for open and distance learning in India. Recently, it has integrated the concept of open access into its teaching-learning system by providing free courses to learners through its Flexi Learn Service. It aims to provide free learning resources integrated with learning management system to enhance personal learning free of cost.

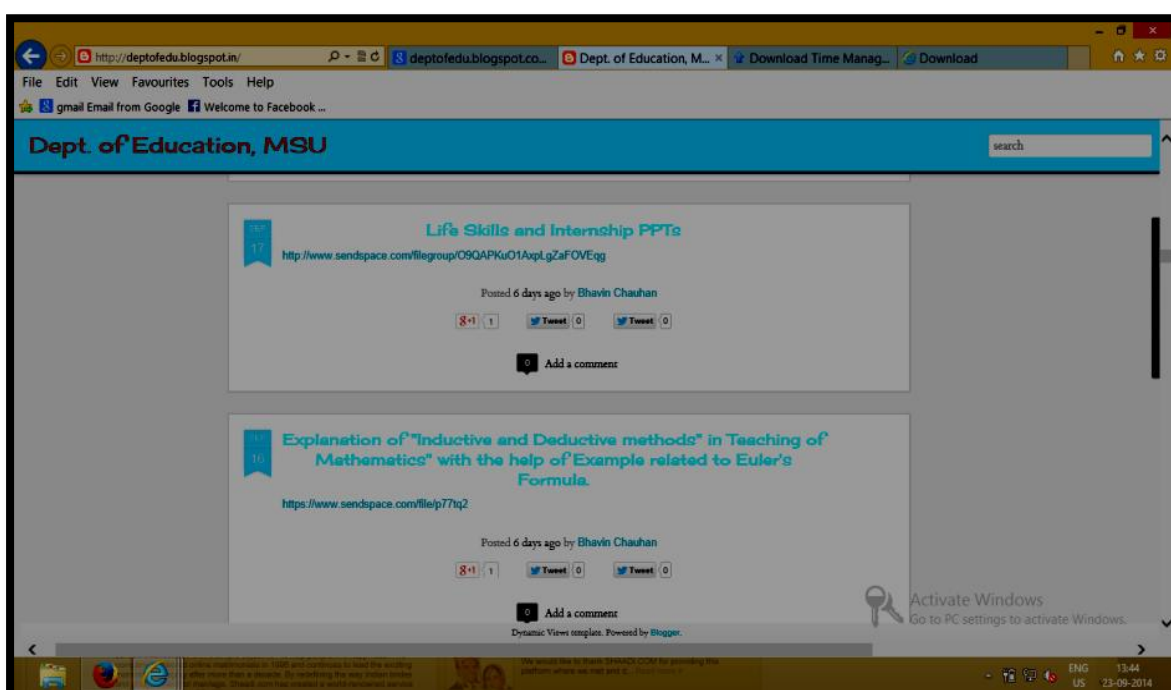
In recent scenario many institutions are practicing the same.

The investigator could find the use of OER in some of the B.Ed. colleges.

Plate_16 (i): Display of Open Educational Resources on Institutional Website



Plate_16 (ii)



Releasing Open Educational Resources is not simply about putting learning and teaching material online; it involves making the material available in a genuinely open

way. Creative Commons or similar licenses are used, so that, the creator of the resources can retain copyright, while others can copy, distribute, and make some uses of their work.

OER can be looked upon as a process, as well as, a set of products. This is because educators need to rethink the way in which they create, use and distribute learning and teaching materials.

Opening up learning and teaching materials does not equate to providing a free education. Open Educational Resources are components of a rich educational package which includes staff expertise, institutional facilities, tuition and feedback.

Though this practice is so much rich for student-teachers, the investigator could find across only two Teacher Education institutions out of 149 institutions where this is being practiced. Most of the student-teachers expressed that use of OER made learning easy due to easy accessibility and reduced efforts of printing. Further they also voiced that if they missed any class they could do self learning by downloading the materials.

6. Compulsory Integration of Smart Board/ Interactive White Boards in Practice Teaching Phase

The purpose of using Smart boards was to give hands on experience to teach through Smart Boards /Interactive White Boards (IWB) produced by Smart Technologies. The Smart board system is composed of three parts, a computer with Notebook Software, a Projector, and Interactive Whiteboard. Computer images are displayed on a touch sensitive whiteboard where they can be easily manipulated, providing opportunities for student engagement. Smart Boards come with collaborative learning software known as Smart Notebook, but are also compatible with other softwares such as, Microsoft Power Point, Microsoft Word. In addition, the user can integrate numerous software programs from Internet with the Computer Programs on the Whiteboard.

Student-teachers reflected that use of smart board/interactive whiteboard made students more focused towards learning. Moreover, the additional advantage for student-teachers is that on smart board/interactive whiteboard notes can be added, highlighted and saved for future use. All the student-teachers agreed that knowledge

about the use of smart board/interactive whiteboard would be beneficial for their teaching profession.

Teacher Educators opined that student-teachers performed well on the Smart board technology assignment, indicating that they were competent to use technology and create interactive lesson activities.

It was also expressed by Teacher Educators that during practice teaching phase most of the student-teachers utilised Smart board technology in their lessons. This indicates that student-teachers were able to use interactive tools and were interested in integrating technology into their teaching practice. On the other hand student-teachers opined that use of Smart Board helped them to attain good practice for the technologically advanced schools. Some of the student-teachers said that, they feared using board, but after using it during their lesson they could overcome the fear. They also expressed the increase in their confidence due to use of Smart Board.

7. Aptitude Testing for Grouping B.Ed. Classroom

In one of the surveyed Teacher Education Institutions the student-teachers appeared for Aptitude Test before the commencement of B.Ed. programme. The Aptitude Test was developed collaboratively by the Teacher Educators of the institution. It was administered to know their general arithmetic ability, language proficiency, general psychology, value of profession, sense of teaching before starting of instructional process.

The result of the aptitude test was used to group the student-teachers. Each group had student-teachers who scored high, medium and low on the aptitude test. The grouping aimed at helping the slow learners & low achievers to get peer support for learning various subjects.

Student-teachers expressed that working in groups helped them to learn well different subjects' especially Educational Evaluation. Further, they voiced that whenever they were in need of help, group members were there to solve their queries.

8. Learning by Accessing Answer-Sheets in B.Ed. classroom

In this practice the student-teachers were asked to evaluate the actual answer sheet of the school student. The time given was 30 minutes. If the answer sheets are of midterm and final term exams, it may take longer.

The student-teachers were provided zerox copies of answer sheets consisting of different kinds of items, to be evaluated by Teacher Educators. This practice aimed at developing the evaluative skills in student-teachers with respect to the evaluation of essay type of answer, multiple choices, true-false, differentiation, short answer, long answer, and match the followings. The answer key and the question paper were also provided.

The main objective of this practice was to provide hands on experience to the student-teachers to evaluate the students' answer sheet.

The student-teachers opined that evaluating the answer-sheets helped them to familiarize with the grading pattern, criteria of evaluation, types of questions to be framed and time taken to evaluate a paper. They expressed that they were enthusiastic to do such a practice.

After the evaluation of the answer sheets by the student-teachers, the Teacher Educators provides an atmosphere for the discussion about the grades assigned by them. They discuss the basis for providing different grades to a student. Teacher Educators then guide them on all points to be kept in mind while correcting the papers.

9. Training the Student-Teachers to Conduct Online Examinations

Due to the inclusion of ICTs in Education in Current Scenario, it is required to reconsider and rethink, modify or change the traditional examination methods. Electronic assessment tools could reduce the burden of teachers and facilitate to conduct examinations purposefully. This initiative has been started by one of the surveyed Teacher Education Institute.

The surveyed institute conducted a Unit Test for student-teachers, to give them the experience of the online exams. The institute had installed software which would help them to design the online examination. The conduction of such an exam familiarised the student-teachers about the various aspects that have to be taken care of while conducting an online exam. For example student-teachers learnt that the usage of internet sites other drives of the computer should be blocked while an online exam is conducted.

Thus, the practice helped the student-teachers to know about the precautions to be taken while conducting the online examination.

10. Giving Opportunities in Variety of Situations/Schools for Practice Teaching

Student teaching, traditionally, is done in the laboratory school of the training college or in a few nearby schools. Often many colleges are situated in urban areas; hence the student-teachers get trained only in urban situations. Again these schools are generally superior in quality available resources, and intake of students.

Training in a variety of situations, like, urban schools, rural and non-tribal schools, and tribal schools provides a comprehensive idea about the roles of teachers at different types of schools. In this practice, practice teaching lessons were delivered in various types of schools. During the survey the investigator came across an institute wherein such an exposure to a variety of schools was being given to the student-teachers.

During the first phase of practice teaching the student-teachers were sent to urban school, in the second phase of practice teaching they were assigned the rural schools and during the internship they were sent to tribal schools.

Student-teachers expressed that teaching in different types of schools helped to identify the different types of students, the infrastructural facilities available and the management of the schools. Moreover, they opined that they could understand that teaching in different types of schools requires modification of teaching strategies. Thus, student-teachers expressed that this practice was fruitful in giving the real practical experience of different schools.

Teacher Educators expressed that the students-teachers could develop different abilities & skills to adapt to different kinds of schools due to this practice. They also expressed a lot of change in the B.Ed. time table are to be done for executing this type of practice.

11. Visit Method

The student-teachers opting for Economics, Account and Social Science as the Methods of Teaching are asked to visit the Bank, Stock Exchange, and Corporate Offices with a questionnaire. The aim was to provide the student-teachers with an opportunity to gather the field information about the subjects that they taught.

The student-teachers were sent to different Institutes in small groups for visit. After coming back they discussed the information gathered with the other peers in their respective method classes. The aim here was to make the student-teachers aware of the various procedures in such institutes so that it could be shared when they were teaching in classrooms. This information gave a sense of confidence to the student-teachers when they went to teach the students during practice teaching sessions. The student-teachers with these 3 methods usually taught in XI & XII class, where the students were capable of self learning from texts, but required more practical inputs. So, these practical experiences added a good flavour to the bookish knowledge.

12. Educational Panorama

This practice enabled each student-teacher to find one new website related to their teaching method. After finding the website the student-teacher had to share the name and its usefulness with all the student-teachers. The surveyed institute believed that such a practice would create awareness about various useful websites among the student-teachers. This would enable the student-teachers to use those website for reference while preparing to teach in class.

The student-teachers opined that the practice consumed a lot of time, but it was very useful to them. They said that the students in the schools enjoy learning when some extra knowledge is given; using websites is easier to get extra information.

However, the Teacher Educators said that since the electronic media and digitization is giving importance, awareness about such educative websites would enrich the student-teachers & Teacher Educators.

13. Annual Test Lessons Excluding Textbook Content

One of the institutions was found practicing annual test lessons where textbook materials were not allowed to be taught. This criterion was to evaluate mastery in teaching skills of the student-teachers by observing the learning of content by school student during test lessons. While selecting the content the student-teachers were instructed to select content, as per the level of students in the class. Special care was taken that the content was not from textbook but from other reliable sources. If the student-teachers were not able to search the content, the Teacher Educator helped them to find the same.

The student-teachers opined that the task of finding content outside textbook content was very difficult. Along with the similarity of the content the level of the students was also to be kept in mind, which was another big challenge. However, they expressed that in the process they could get many resources related to their subject, which enriched them. Student-teachers expressed that convincing the students to learn the content outside the text and helping them understand its importance, was another big task, doing that helped them to sharpen their skills. Thus, all the student-teachers expressed that the practice helped them to learn new things, face challenges and to overcome them.

14. Educational Forum

Education Forum was a unique learning platform for student-teachers which aimed at developing confidence and presentation skills of the teacher trainees; to sensitize about current issues and trends related to education, society, to develop democratic attitude amongst the student-teachers; to enhance thinking and communication skills and to promote the organization skills. In this practice, student-teacher selected the topic of their choice, prepared presentation with the guidance of the in-charge faculty and presented it in class.

In the surveyed institute the Educational forum was conducted every Wednesday regularly for one hour. Presentation of 30 minutes followed by open discussion in the house for another 30 minutes was called the Educational Forum. Student-teachers were advised and encouraged to use latest technology for the presentation and to ask questions. During the discussion or question answer session Teacher Educators monitored and tried to make discussion process meaningful. It was ensured that student-teachers, who hesitated to share their ideas and participate in the discussion, also took active part. During the presentation all faculty members were involved in discussion and to share their views, ideas and observations. The topics presented in the forum were to achieve the objectives of the forum in its true sense. The student-teachers presented the topics viz., Right to Education, Corruption, Women empowerment, Acid Rain, Management Of Change, Sex Education, Need Of Guidance Services in School, Co-curricular Activities in School, Role of School Teacher for all round development of Child, Value Incuclation and Semester System. At the end of the presentation a presenter was felicitated with a certificate from the institution.

Student-teachers opined that they gained a lot of information about the various social & educational topics. Along with that they expressed the improvement in their communication ability and removal of stage fear.

15. Value Week Celebration

At the surveyed institution, values are held at a place of great significance and it is important to become aware of our values and to live there. Therefore, with the aim to create awareness and evoke the need to imbibe values among future teachers, Value Week is celebrated every year from 28th January to 5th February.

All the 16 groups of student-teachers, representing different values like unity, punctuality, honesty, simplicity, creativity, patriotism, optimism, co-operation, commitment under the guidance of their peer counsellors, presented beautifully, the need and importance of values in today's world, through thought provoking skits, role plays, power point presentations, talks, songs and prayer.

At the end of the value week celebration, the student-teachers were appreciated for their creative efforts in spreading awareness on the importance of the values.

One of the amazing lessons that the student teachers learned from this task was, to find ways to bring awareness about values. In value, education in values and education towards the inculcation of values were highlighted.

The student-teachers expressed that Value Week celebrations helped them to reflect on one's own values and principles of life. Everyone felt the need to make these values strong by living these and helping others to live these.

16. Long Distance Off Campus

The Off Campus practice is organized by the institution at a minimum distance of 500 Km. Usually the off campus is in the nearby villages of the College, but this Institute purposefully sends the student-teachers to a village beyond 500 km or more distance. The purpose of this practice was to make the student-teacher capable enough to work with the rural school environment & community where the student-teachers took part in each and every activity under the guidance of the Supervisor.

Student-teachers were of the view that visiting such rural schools helped them to learn the rural dialects and participate in rural school activities. They opined that they could

learn to adjust with the rural environment and adapt to food and other lacking facilities, which otherwise they had never experienced before.

17. Code of Conduct: Grooming Sessions

As good teachers are social engineers, social agents of change, the institute aimed at grooming the future teachers.

Special lectures on Code of Conduct were conducted for the student-teachers. This practice aimed at teaching the code of conduct to the student-teachers and the manners to talk with elders and colleagues. The student-teachers were taught how to talk respectfully. They were taught the phrases and sentences to be used to respect. They were also taught the ways to dress up. The student-teachers were also taught the ways to draft an official letter.

The Teacher Educators expressed that these sessions would help in grooming the student-teachers in accordance with the social requirement. On the other hand student-teachers expressed that the practice was very helpful in teaching them ways to talk, dress up and communicate formally.

18. TAT/TET Classes

Cost effective classes for providing training for TAT/TET (Teacher Aptitude Test/ Teacher Eligibility Test) classes were conducted in vacation period for the old students-teachers at one of the surveyed Teacher Education institutions.

For current batch of student-teachers, in the morning assembly they have quiz sessions for 10 minutes. This task will make student-teachers aware of the type of questions that are asked in the TAT/TET exams so that they can prepare themselves to appear for the exams. The previous year exam question papers were also administered on them for practice. Some time was allotted for orientation to questions based on logical thinking and English grammar.

19. Saasu-Vahu Sammelan

This practice aims at developing awareness about the importance of B.Ed. course and its duration to the Sasu (mother-in-laws) of student-teachers who are married. Many of the female student-teachers were already married when they joined B.Ed.; hence they have to play the role of a (Vahu) daughter-in-law at home and a student-teacher

at the college. Balancing between the two duties totally different in nature requires a lot of support from the in-laws. The support of mother-in-law plays a significant role in sustaining the student-teacher interest in B.Ed.

In this practice the Principal of the B.Ed. College arranged a common meeting of all the mother-in-laws who tried to hinder their daughter-in-laws B.Ed. studies. Mother-in-laws expressed problems about the duration of course and home assignments to be done by their daughter-in-laws. So the principal welcomed all such mother-in-laws, appreciated them for allowing their daughter-in-laws to study & tried to make them aware about the importance of B.Ed. In some cases the principal also told the mother-in-laws that the daughter-in-laws would earn after getting the degree.

Thus, the principal tried to calm the mother-in-laws, which would indirectly help and provided healthy supportive environment to the daughter-in-laws to complete B.Ed. course smoothly.

20. Self-Regulation

Freedom is in thinking, not in laws. With a view to shaping the mind-set of the student-teachers at one of the surveyed Teacher Education institutions, much of the work was undertaken with individual choice. To give one example, there was no bell to announce the beginning or end of a session. Individuals could be autonomous without damaging the overall systemic structure. The goal was to develop healthy work culture, commitment, conviction and compassion.

4.2.1. Comprehensive View of the Innovative Practices in the Institutes of Education of Gujarat State

The comprehensive view of the innovative practices in the institutes of Education of Gujarat State is presented as follows Institute-wise.

Table_16: Innovative Practices Institute-wise in the Institutes of Education of Gujarat State

Sr. No	Institute	Frequency	Percentage
1	School of Science and Education, Navrachna University, Vadodara	8	16.32
2	Anand College of Education	6	12.24
3	Way Made College of Education	5	10.20
4	H. R. Gajwani College of Education	5	10.20
5	R. H. Patel English Medium B.Ed. College	4	8.16
6	Department of Education, The M. S. University of Baroda	3	6.12
7	J. G. College of Education	3	6.12
8	M. B. Patel College of Education	3	6.12
9	M. N. Shukla College of Education	3	6.12
10	I. J. Patel College of Education	3	6.12
11	New Progressive College of Education	2	4.08
12	Gujarat Vidyapeeth	1	2.04
13	H. D. Sethiya College of Education	1	2.04
14	Sri Rang Shikshan Mahavidhyalaya	1	2.04
15	L. N. K. College of Education	1	2.04
Total Innovative Practices as Reported by the Institutes of Education of Gujarat State		49	99.96

It is evident from the table No_16 that 57.12 % of the Innovative practices are offered by five of the Institutes of Education, namely, School of Science and Education – Navrachna University (16.32 %), Anand College of Education (12.24 %), Way Made College of Education (10.20 %), H. R. Gajwani College of Education (10.20 %), and

R. H. Patel English Medium B.Ed. College (8.16 %). 6.12 % of the Innovative Practices are offered by each one of the five institutions, namely, Department of Education, MSU Baroda, J. G. College of Education, M. B. Patel College of Education, M. N. Shukla College of Education and I. J. Patel College of Education. New Progressive College of Education has been found to practice 4.08 % of the Innovations. 2.04 % of the Innovations have been found to be practiced by each one of the four Institutions of Education, namely, Gujarat Vidyapeeth, Sri Rang Shikshan Mahavidyalaya, S. D. Sethiya College of Education and L. N. K. College of Education.

4.3. Analysis Objective 3

Objective: To study the factors facilitating and impeding the implementation of innovations

A. Facilitating factors Adoption of Innovation

Teacher Educators explained their adoption decisions, i.e. what motivated their adoption of a particular innovation.

1. First, the adopters were motivated by their beliefs about the underlying philosophies of the innovative practices, such as the role of context in motivating student teachers and promoting learning.

One of the adopters was of the view that a big barrier was lack of the required language to teach in classroom. The person had to teach educational evaluation and none of the approaches worked with it. Then, it is decided to adopt cooperative learning approach into current educational evaluation courses, because the person was convinced that teaching educational evaluation in cooperative learning context would help students to grasp its concepts better and the adopted approach would help to motivate the students. Quoting from teachers' own response, "I feel that it's very important to facilitate students with new adopted approaches to make them learn and satisfy that concern."

Teacher Educators who were worried about their teaching learning contexts were more likely to adopt trying new approaches. It was found that those Teacher Educators who were paying more attention to research results thereby became more prepared for adoption of innovation.

2. Secondly, Teacher Educators prior experiences also played a vital role in facilitating adoption of innovative practices. Many of them found the ideas presented in the seminars and workshops were connected to their prior teaching experiences, which convinced them to adopt.

One of the Teacher Educators said: “I have always struggled with how best to convey the things to the student teachers, so that they can learn in a better way. For the past year, I have experimented with teaching psychology with video clips especially the learning theories, first with a heavy emphasis on showing a video - theory - video - evaluation. I had some success with this approach.”

B. Factors Impeding Adoption of Innovations

Teacher Educators’ explanations for their non-adoption of innovations were as follows. (Personal Concerns for avoiding Adoption)

1. Some Teacher Educators did not adopt innovations due to their personal concerns about the course content and optimum utilization of time.
2. Non-adopters also described a lack of confidence in utilizing new course materials.
3. However, the main barriers as reported by more than half of the non-adopters to adopt innovations came from organizational issues, like, inability to convince their colleagues to use a new approach or to integrate it into current courses, department curriculum restrictions hindering the adoption of innovation.
4. Teacher Educator opined that a general agreement from the college staff members about existing problems in functioning and adopting innovation could be better in bringing positive result would help in conducive adaptation of innovations in institutions.
5. The investigator found that, Teacher Educators’ attitudes and beliefs about curriculum, students - teachers influence their decision making on adoption of innovative practices. Most of Teacher Educators concerns were related to adopting innovative curriculum in general, such as the issues of teachers’ preparation time, and availability of course materials.

A few other issues were specific to the contextualizing the courses. For example, Teacher Educators were concerned about student teachers and their own background knowledge related to the course context. Moreover, both Teacher Educators and student teachers interest in the course context influenced teachers' adoption.

6. As for Teacher Educators themselves, the most common concern reported was about confidence to change. When adopting a new course, Teacher Educators need to spend time, learning the materials, prepare for innovative classes and think on practical aspects. It might require extra effort when they need to adapt those tools or course materials to fit their own needs. Moreover, it was also a challenge to become proficient in delivering the content especially when they have limited background knowledge of a context.

C. General factors for Not adopting the Innovation

➤ Dissatisfaction with the Status

Teacher Educators also said that adaptation of innovations was more intense when satisfaction is there related to payment, staff group cohesiveness, administrative environment.

➤ Knowledge and Skills in use of ICT

It was noticed that Teacher Educators must possess a basic competency level of the technologies to use in classroom situations. Without this competency, the implementation of an educational innovation might not take place. Teacher Educators must possess the technical skills to bring about the change. They need training and support to implement the change with trustworthiness.

➤ Resources

Many of the Teacher Educators had opined that they were willing to do something for change but they need access to resources. Support materials and access to the technology were critical for the success of an educational change. Resources could be either hardware or software, but all relevant tools must be made available.

➤ **Time**

The Teacher Educators were of the view that time is not given to reflect on the need to adopt innovation in the traditional teacher training system. They said that time is vital to bring in about an educational change. Time is essential to experiment, learn, adapt, and reflect on the innovation. This can be facilitated through pre-service trainings and group support sessions within the working schedule of the institution.

➤ **Rewards and Incentives**

From the interview with the Teacher Educators it was revealed that educators would not change for the sake of change, rather, there must be a sufficient reason for change. Teacher Educators argued that some kind of incentive should be offered to motivate educators to implement the change. The incentive might be based on the climate and culture of the organization, but it could be as simple as new teaching materials or a trip to a training session in a relevant location. The incentive could be formal recognition for accomplishments during the implementation process also. Whatever the incentive, tangible or intangible, must be present.

➤ **Participation in Decision-Making Process**

The Teacher Educator opined that there has to be shared decision-making process among all stakeholders involved. And further it must give every group member a part in the implementation process. Change should not be simply top-down mandate, but rather participatory decision-making process. This could foster a sense of ownership and help to ensure implementation with trustworthiness.

➤ **Commitment/Support**

The Teacher Educators were of the view that the College Principal should make it a priority and must communicate a message of compulsory implementation; otherwise the new implementation might be a failure. ‘Why to take the time to change your ways if your own principal doesn't provide the support (time, readiness or training) or communicate the need to change?’

Further, they opined that support from all the authorities and the administration is important for implementation of any new process. This means not just commitment by Teacher Educators that the technology will be available in their classrooms, but firm commitment that they will use it in their teaching learning process. There must be hand-in-hand and visible support from administration in order to implement the innovation successfully.

➤ **Leadership**

It was observed that the educators who were the in-charge of the particular practice has to lead the group, provide support, troubleshoot, cheer or counsel, and to provide whatever is needed to make the implementation a success. Further, they were of the view that the drive to change can't fall to the Teacher Educator alone; there must be shoulders of authority to carry the innovation more successfully. So, leaders must be committed from the top to down, i.e., executive to the project leader / superintendent to the principal or department head.

➤ **Decision Making by External Agencies**

It was revealed that many Teacher Educators were simply following the decisions taken by their university and government authorities for the adoption of innovations in their teacher training institutions. So with that Teacher Educators lose to take the initiative and desire to make an effort for innovation even in their particular Subjects area such as methods of teaching, supervision and guidance to student teachers because they are not involved in decision making.

D. Factors for the Diffusion and Adoption of Innovations

There are also certain factors that were giving negative effect in diffusion of innovation and its adoption process.

The basic barriers to the diffusion process and succeeding adoption of innovations as explained by Teacher Educators were explained here.

a) Usage of the Practice

The Teacher Educator found the particular practice to be incompatible with their existing pattern. The barrier seems to be more psychological, based on deep rooted values, beliefs, attitudes and perception and as a result was giving such behaviour of non-acceptance and non-usage. For example, Teacher Educators are often unwilling to enter into open book examinations.

b) Product Value of the Practice

Teacher Educators could also resist acceptance of an innovation, as they were feeling low about the perceived product value of the practice. Adopter perceived the new practice offering to be the same as existing offerings, and nothing new. For example, while adopting new practice, Teacher Educator compares the practice in terms of workload and other related tasks.

The perceived lack of practice value were i) the practice does not provide much benefit over the existing alternatives ii) the practice is costly in terms of healthy adaptation, and iii) the practice doesn't seem to be worth the use in a time constrained traditional system.

c) Risk to adopt the Practice

Risk also acted as the main barrier to diffusion of innovation. Teacher Educators showed unwillingness to use an innovative practice offered out of fear of taking risks. It was found that there were five types of risk factors that adaptors faced

- i. Practical risk (would the practice perform as expected?),
- ii. Social risk (would it cause risk of social awkwardness?),
- iii. Financial risk (would the practice be worth the cost?),
- iv. Psychological risk (would the innovation satisfy the demands?), and
- v. Time risk (would it lead to wastage of time spent after implementation?)

These all perceived risk barriers act as a big barrier to the diffusion and adoption process. Teacher Educators were found fearful of usage of innovative offerings, and thereby try to avoid such circumstances. They continue to utilize the existing easy alternatives, rather than adopt the new ones with the fear of making a wrong decision.

d) Psychological Factors

Psychological factors also prevented adopters from adopting a new practice in offer. These factors related to a person's background, attitude and belief, perception, values and culture etc. They found the innovations to be psychologically threatening. The two common barriers identified were i) traditional barriers, and ii) institutional image barriers.

1. Tradition barrier was related to socio-culturally accepted norms of behaviour that were regarded as right and appropriate, by the adopter's section. Anything that is new and does not support traditional patterns is regarded as psychologically threatening; this included usage and adoption of innovative practices. For example use of ICT will reduce the value of teacher.
2. Institutional image barrier was found by the authorized adopter's attitude and feelings about the practice offering by the institute by relating with the status of an institution.

It was noticed that the decision on adoption of new practices in the Teacher Education institutions were not either based on majority opinion only or based on authority of the institution only. The decisions in most of the cases were a combination of democratic, participative consultative and the exercise of the genuine authority of the competent body by organizing academic group meetings. Thus, adopters tried to come up with various alternatives in offerings.