BEST PRACTICES

PROBLEM BASED LEARNING AS TEACHING LEARNING METHODOLOGY

- **Title of the Practice**

  Problem Based Learning as teaching learning methodology.

- **Objective of the Practice**
- To enhance the knowledge of learners.
- To improve the quality of teaching and learning.
- To develop a whole range of skills to enable the students to learn effectively, including information skills, team work skills, communication and, most importantly higher cognitive skills for professional development.

- **The context**

  Problem Based Learning (PBL) serves to teach content by presenting the students with a real-world challenge similar to one they might encounter, while they are practicing in their discipline. Teaching content through skills is one of the primary distinguishing features of PBL. More commonly, instructors introduce students to teacher determined content via lecture and texts. After a specific amount of content is presented, students are tested on their understanding in a variety of ways. PBL, in contrast, is more inductive; students learn the content as they try to address a problem.

  The concept is to encourage learners to participate actively in seeking the whole picture. The students should engage in reflective practice and evaluate among themselves and use exploratory ways to make sense of new ideas and experiences within the learning process so extensive learning takes place. In PBL, teacher acts as facilitator and mentor, rather than a source of solutions.

  Problem based learning will provide opportunities to
- Examine and try out what learners know
- Discover what learners need to learn
- Develop people skills for achieving higher performance in teams
- Improve communications skills
- State and defend positions with evidence and sound argument.

- The practice

  The PBL promotes teamwork and cognitive skills which are unique from the other teaching practice. It is practiced through the following steps which are repeated and recycled.

  i. **Explore the issues**

  Teacher introduces an 'ill-structured' problem to Learners, discusses the problem statement and list its significant parts. Learners will gather information and learn new concepts, principles, or skills as they engage in the problem-solving process.

  ii. **List "What do the learners know?"**

  This includes both what learners actually know and what strengths and capabilities each team member has.

  iii. **Develop and write out, the problem statement in own words**

  A problem statement should come from the group's analysis of what learners know, and what they will need to know to solve it. Learners will need a written statement, the agreement and feedback of the group on the statement.

  iv. **List out possible solutions**

  Learners should list the all possible solutions in an order from strongest to weakest and then they choose the best one, or most likely to succeed.

  v. **List actions to be taken with a timeline**

  Learners should need to identify what they know and how to solve the problem and also whether they agree upon the solution.

  vi. **List "What do learners need to know?"**

  Learners should identify the knowledge and data that will support group's solution. Facilitator will need to provide information to fill in missing gaps. If research supports their solution, and if there is general agreement, they go to step 7 if not, go to step 4.

  vii. **Write up solution with its supporting documentation, and submit it.**

  Learners may need to present their findings and/or recommendations to a group or classmates. This should include the problem statement, questions, data gathered, analysis of data, and support for solutions or recommendations based on the data analysis: in short, the process and outcome.

  viii. **Review the performance**

This debriefing exercise applies both to individuals and the group. Take pride in what learners have done well; learn from what they have not done well.

ix. **Celebrate the work!**

Assign and schedule research tasks, especially deadlines

- Evidence of Success

The approach calls for trying it out as a discrete part of a course module. It is with the hope that students are able to apply theory to practice, and will value the opportunity to share experiential learning and common goals, and thus contribute to improving the appreciation of multidisciplinary and collaborative working. Learners become more flexible in processing information and meeting obligations and they acquire required skills of the profession.

- Problems Encountered and resources required

Problems encountered are:

- Lack of confidence in learners in solving the problem.
- Consideration of everybody's input since it is a team work, no matter how important it is.
- As the new information is emerges, the problem statement is redesigned.

Resources required: class rooms with ICT facilities, supportive related literatures, qualified and well trained faculty.

- Notes

It can be considered as one of the best practices in imparting knowledge and developing skills.

CLINICAL SIMULATION IN NURSING

- Title of the Practice

  Clinical Simulation in Nursing

- Objective of the Practice

  Objectives are:

- Identify potential advantages/disadvantages of simulation as a teaching strategy over actual clinical experience.

- Discuss the use of simulation as an evaluation tool.

- **Principles of Clinical Simulation are:**

- Provides a mirror real situation which has control over extraneous variables or constraints that might interfere with learning.

- Provides safe environment in which learning has priority over patient care.

- Provide immediate feedback on performance.

- The context

  Simulation is a technique, not a technology, to replace or amplify real experiences with guided experiences, often immersive in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion. Simulator replicates a task environment with sufficient realism to serve a desired purpose. Some of the challenging issues that needed to be addressed are:

- Initial capital expenditures are required for establishment of virtual lab.

- Finance for periodical maintenance of simulators and faculty development.

- Ongoing faculty/administrative/technical support is required for the smooth running of practice.

- The practice

  There is usually some pre-work, or preparation learning, by the participant before the simulation. This is followed by the implementation of the simulation, which is subsequently followed by a debriefing session. Debriefings are generally conducted as a reflective learning experience in which participants review their performance in the simulation and the facilitator provides additional feedback.

  Uniqueness of simulation practice are:

- It offers opportunity to practice rare and critical events.

- It offers opportunities to learn by trial and error method.

- It is safe and respectful for patients.

Some of the limitations of Clinical Simulation Compared to Actual Clinical Experience are as follows:

- Not real
- Limited realistic human interaction
- No/incomplete physiological symptoms
- Limited access
- Dependent on availability of trained faculty.

● Evidence of Success

In this method teachers were able to identify the problems encountered by the students at the earliest. This was quiet evident from their performance and also from their feedback. The students excel in their performance and time management. This method also helped the teacher to thoroughly understand the student, his strengths, weaknesses and the ability of the student in meeting the patient care.

● Problems Encountered and resources required

Problems encountered are:

- Setting standards and guidelines to practice on simulator.
- The students need more confidence in assessing, intervening and evaluating clinical conditions.
- Students may not take it seriously as simulation attempts in portraying real situation in a simple way.
- Setting a limit on the number of sessions per teaching module or course that could be delivered through simulation.

Initial capital expenditures**,** faculty and content experts, space and equipments, participant handouts, administrative and technical support are the resources required to implement the Clinical Simulation in learning.

● Notes

It is one of the best practices adopted in our institution. Our students are able to improve their skills in the teacher student ratio of 1:1 and the same can be replicated in the patient care.