Title

Practical Approaches of persuasion to open and distance learning for children and young people in the technology   enriched era.

Authors

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Abstract

The main objective of the study is to highlight the significance of open and distance learning in teacher education. Many young graduates working as teachers pursue teacher education through open and distance learning mode extending for a period of two years. An effective demonstration technique practiced   in the learning process of the students enrolled under Open and Distance learning is project based learning followed by assessment based on its effective implementation during their practice teaching session. The strategy of assessment was explained by the demonstrator. A group of students opted for science optional were given demonstration about the methodology of project based learning during their contact seminar session integrating technology .At the end of the session each one of them were given assignment on a particular topic adopting project based learning. Instructions were given to carry out research on project-based learning, its advantages, practical implementation, and to send report on or before an agreed deadline through online in order to assess the quality of report. It was found that when learning was carried in an online environment by students enrolled in Open and distance learning provided more time to think and learn the concept at their pace, engaging them in deep learning about the topic concerned. The reports are assessed through online mentioning the criteria of assessment .The students review their assessment judge their own capabilities and work on the remarks. Thus open and distance learning enables the student to process the instruction whether it is paper based or computer based, providing flexible sequences of study,   with negotiated content , learning methods , negotiated assessment methods . It is concluded that open and distance learning increases enrollment ratio of learners at all levels who are deprived of formal education due to various reasons.

Introduction

Defining Open and Distance Learning
Open learning is an approach that provides learning in a flexible manner, organized around the geographical, social, and time constraints of the learner rather than an institution (Bates 1995:27).*Distance education* is a means to that end. It is "an educational process in which a significant proportion of the teaching is conducted by someone removed in space or time from the learner" (Perraton 1993: 63).
The combination of the approach, open learning, with the method, distance teaching, is called *open and distance learning*. This term will be used throughout the toolkit. When combined with ICT in a well-designed, local school-based support system, open and distance learning can meet the challenges that education systems in developing countries are facing today.

The term Education is a complex word which includes teaching , learning, schooling , Tutoring, instruction, edification and culture. Therefore, imparting education is equally a complex phenomenon. However, early man educated himself from his best teacher "The mother nature, ever since the journey of education had begun. In the 21st century, with all the advancements science and technology UNESCO is striving to achieve education for all by 2015. Education through open and distance learning incorporating a variety of strategies involving teaching learning is one of the objectives to attain the goal. The paper discusses the effectiveness of project based learning as one of the recommended methodology of teaching learning in teacher education curriculum through ODL.
In India teacher education programmes are conducted by adopting formal as well as informal mode. Informal mode includes ODL .The minimum requirement for enrolling in a BEd programme requires a basic degree from a recognized university and working as a teacher in a secondary school. The duration of the course extends for a period of two years. The students attend contact classes during weekends to gain knowledge about the topics specified in their curriculum. It is recommended that teacher educators adopt PBL as a strategy to impart knowledge .

Project based learning in ODL

 The project based learning improves the students learning Biggs(1994) under four key areas a) Positive motivational context, b) High degree of learning activity, c) interaction with others, d)a well structured knowledge base. PBL incorporates the above mentioned amenities of teaching learning thus it generates a great feeling of' ownership" of teaching and learning. In open and distance learning the learners need to pay attention to the types of activity which will encourage reflection in learning and help learners to construct their own meanings. This leads directly encouraging interaction with others Lockwood(1992).

If PBL is practiced among student teachers, they become pioneers in implementing the same in their regular classroom teaching as many teachers and researchers believe A PBL approach is designed to encourage students to become independent workers, critical thinkers, and lifelong learners. Advantages of project-based learning include encouragement of student initiative, self-directive ness, inventiveness, and independence. In contrast, the early teaching methodology. The saying ' quality matters as well as quantity " is achieved by adopting PBL methodology in ODL. To do job well teachers' need to possess mastery of the subject matter they are to teach and to be skilled in the process of teaching.

In some countries teacher's quality is judged by the qualification which might not be true always. The subject knowledge is essential and influences the teaching – learning Process of an individual. Therefore teacher trainees when trained in the PBL experience the task of class room management is quite different from that faced by the teachers employing the traditional instructional method of lecture discussion and seat work. The skills acquired by the teacher trainees could be problem solving or critical thinking or "thinking on your feet". In the McMaster Medical School, one of five criteria for admission is a test of the candidates' problem solving skills. It enables student teachers to develop cooperative learning environment among their students. Cooperative learning is a learning environment where students work together to learn, as opposed to competing with each other for marks. This kind of cooperative learning being an effective factor of PBL (Peterson, 1997) remarked the ability of working together to pool talents, resources enables the students to resolve conflicts and gain a spirit of togetherness.

Roots of PBL

The birth of PBL though started 100 years ago as rightly suggested by educationist like John Dewey that on the benefits of experiential, hands-on, student-directed learning.However the actual emergence of PBL is the result of two important developments over the last 25 years. First, there has been a revolution in learning theory. Research in neuroscience and psychology has extended cognitive and behavioral models of learning–which support traditional direct instruction–to show that knowledge, thinking, doing, and the contexts for learning are inextricably tied. Research shows that learners not only respond by feeding back information, but they also actively use what they know to explore, negotiate, interpret, and create. They *construct* solutions, thus shifting the emphasis toward the process of learning. In addition, cognitive research has revealed much more about the nature of problem solving. The methodology of PBLprovides children with both knowledge *and* skills to succeed. This need is driven not only by workforce demands for high-performance employees who can plan, collaborate, and communicate, but also by the need to help all young people learn civic responsibility and master their new roles as global citizens. PBL instructions when carefully planned
Provides the following learning outcomes.

- **As the students are the center of the learning process it improves their inherent drive to learn.**
- **It engages the students to develop the central concepts and principles of a discipline.**
- **It highlights provocative issues or questions that lead students to *in-depth exploration of authentic and important topics.***
- ***It enhances* the use of essential *tools and skills*, including technology, for learning, self-management, and project management.**
- **It inculcates the ability to solve problems, explain dilemmas, or present information generated through investigation, research, or reasoning.**
- **It provides frequent feedback and consistent opportunities for students to learn from experience.**
- **It provides ground for *performance-based assessments* that communicate high expectations, present rigorous challenges, and require a range of skills and knowledge.**
- **It Encourages *collaboration* in some form, either through small groups, student-led presentations, or whole-class evaluations of project results.**
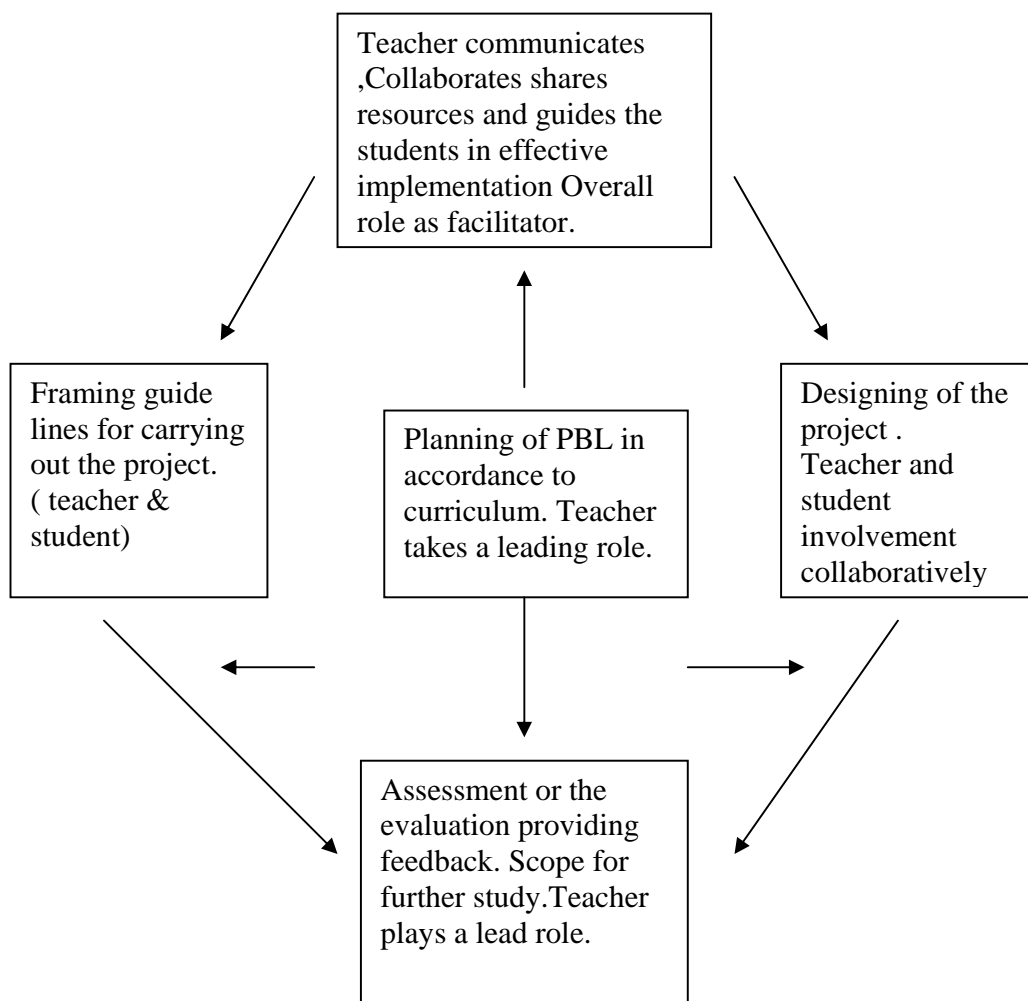
PBL can help the teacher create a high-performing classroom in which the teacher and the students form a powerful learning community focused on achievement, self-mastery, and contribution to the community.

Demonstrating the Role of teacher educators in open and distance learning:

Teacher educators handling the curriculum of teacher education in open and distance learning should provide convenient learning environment to develop professional opportunities for teachers who might not otherwise be able to participate because of time and/or geographic location factors. (Oubenaissa, 2002) suggested Virtual professional development activities may also present opportunities for teachers located in remote areas to strengthen communication and collaboration activities within their profession by encouraging support from other teachers and the sharing of resources and materials. In this context it is equated that the project based learning pedagogy effectively integrates modern technology to be used by both teacher educators and teacher trainees utilizing resources available in the web. There fore web based learning resources as suggested by (Schlager & Fusco, 2003; Rogers, 2000) generates diverse competencies, new ideas, motivation, self-directedness, and a greater awareness of computer technologies. Using the web as knowledge resource allows teachers and designers the opportunity to explore more varied methods of presentation than in traditional text based curriculum materials. Incorporation of text, graphics, audio, animation, and video provide unprecedented

opportunities and challenges in developing effective curricula, but instructional design efforts in any curriculum must possess appropriate elements to optimize student learning (Dick, Carey & Carey, 2000). The aim of PBL in ODL is to provide explicit guidance and support for teachers interested in implementing PBL, and provide freely accessible training materials for those interested in teacher preparation and professional

Development for PBL either in online, face-to-face, or blended environments. To meet these objective ,a four major pathways model demonstrates how teacher educators effectively use PBL pedagogy in ODL

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                    ┌─────────────────────────┐
                    │ Teacher communicates    │
                    │ ,Collaborates shares    │
                    │ resources and guides the│
                    │ students in effective   │
                    │ implementation Overall  │
                    │ role as facilitator.    │
                    └─────────────────────────┘

  ┌──────────────────┐  ┌──────────────────┐  ┌──────────────────┐
  │ Framing guide    │  │ Planning of PBL  │  │ Designing of the │
  │ lines for carrying│ │ in accordance to │  │ project .        │
  │ out the project. │  │ curriculum. Teacher│ │ Teacher and      │
  │ ( teacher &      │  │ takes a leading role.│ │ student          │
  │ student)         │  │                  │  │ involvement      │
  │                  │  │                  │  │ collaboratively  │
  └──────────────────┘  └──────────────────┘  └──────────────────┘

              ┌─────────────────────────┐
              │ Assessment or the       │
              │ evaluation providing    │
              │ feedback. Scope for     │
              │ further study.Teacher   │
              │ plays a lead role.      │
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The model demonstrates role of teacher and the student involvement throughout the learning process in spite of his enrollment in ODL The student could communicate throughout the learning process making use of the online resources.

Effectiveness of PBL pedagogy for teacher training curriculum in ODL.

- This paper answers how PBL is used for teacher trainees enrolled in ODL. The teacher training curriculum involves seven theory papers in which 5 papers are core and remaining two are optional .These papers are covered during contact seminar classes, as the time duration is short and to cover the entire curriculum effectively it is necessary to adopt innovative methods integrating technology. Therefore, through PBL methodology science optional students learn the experience of planning, undertaking, and completing a project which is intended to help them gain confidence in organizing and scheduling their work and to develop the skills needed to study independently. Teacher trainees have the choice of choosing the topics in the curriculum under the guidance of teacher educators The time limit to complete the project is normally 4 weeks duration. Teacher trainees work in a group of 10 reporting to a teacher educator periodically through email or during the contact programme. Teacher trainees submit the out line about the planning of the project work in the topic concerned to the guide teacher. Planning includes topic summary consisting of main concepts learned and a brief explanation of the activities enabling the learner to frame research questions as well as unit questions based on the concepts, procedure consisting of description of scope and sequence of activities and an explanation how these activities help students to learn, time requirement for the completion of the project, prerequisite skills such as conceptual knowledge and technological skills needed to begin the project. The second step is to incorporate higher level thinking skills suggested by Benjamin Bloom (1956) Knowledge, Comprehension, Application, Analysis, Synthesis and evaluation. Teacher trainees design their project to achieve the six higher level thinking skills. The third step includes identifying the important learning process with respect to the given unit. The fourth step includes the development of assessment . The project is assessed based on backward design process (*Wiggins and McTighe, 2000)which involves threeplanning stages each with a focussing question. Stage 1-*What is worthy and requiring of understanding? .Posing this question the teacher educators identify whether the students acquire the knowledge of concepts , processes and skills . Stage-2 Teachers then decide how their students will demonstrate their understanding. (Wiggins and McTighe)describe 'six facets of understanding'. If the students truly understand they could easily do the following tasks.
- can explain
- can interpret
- can apply
- have perspective
- can empathise
- have self-knowledge

In stage – 3 the teachers design the sequence of learning experiences that students will undertake to develop understanding. Learning experiences include in depth knowledge of the concept, analysing ,questioning, proving,generalising etc.In ODL the assessment of the project could be done periodically by the teacher educators integrating technology. The reports sent by the students through email could be assessed by the teacher educators by adopting backward design process.

Effectiveness is guaranteed if the teacher fullfills the the triple role of the facilitator, manager and that of an orchestrator Dillenbourg, Schneider and Synteta (2002) suggests that the student and tutor have to play just in the same way as actors play a movie script. Such pedagogical scripts can become very sophisticated : for each phase, the script specifies the tasks that students have to perform, the composition of the group, the way that the task is distributed within and among the groups, the mode of interaction and the timing of phase. Phases are ordered and connected, i.e. outputs of one phase become inputs of the next phase.Teacher's manager role is to make the learning outcome productive e.g. that the students produce something, that it is task related, that they engage themselves in meta-reflection that is tolook critically at their own work, and that they discuss and share with others. The teacher's facilitator role is to help students with their tasks, e.g. help them to select resources and tools, explain difficult concepts and procedures, "debug" when they are stuck etc. The teacher's orchestrator role is to implement the scenarios or scripts as they are called. This means basically to define a scenario as a sequence of clearly identifiable phases in a way that learners focus on a smaller amount of tasks at the same time and that these tasks are not too difficult to be solved at some point. PBL pedagogical activity scenario should include the following sequence.

1. The teacher introduces the theme, gives clues and asks students to consider the different aspects of the subject .
2. Students search the web with various search engines and bookmark the links they find interesting .
3. Students then try to work out a certain amount of categories and sub-categories for this theme .
4. The results are put in common and a hierarchy is worked out .
5. The approved categories are entered in a common space (e.g. the classroom wall, a sheet of paper or an electronic links management system) .
6. Students classify, enter and describe their links .
7. Teacher provides an evaluation .

Though there are several pedagogical pproaches to teaching and learning process in ODL, in the present technology enriched era a collaborative approach provides the understanding of the opportunities and challenges of the present century.Despite the fact that PBL is an effective methodology ,whenused in ODL often the students felt that the workload on the course was too high for the given

time allocation and wanted more explicit information and clearer guidance. Time management is the major challenging factor as the students use tools such as word processors, spreadsheets, and databases to perform tasks like outlining, drafting essays, analyzing numerical data, and keeping track of collected information. E-mail, electronic mailing lists, forums, and other online applications facilitate communication and collaboration with the world outside the classroom. The students often end up working more number of hours with the multiple demands of curriculum. Creating electronic compositions of art, music, or text collaboratively; participating in a simulation or virtual world; and working together to accomplish a real task or to improve global understanding could easily resolve these challenges.

Conclusions

The paper focuses mainly on demonstrating project-based learning as pedagogical approach in ODL as it improves the quality of teaching learning process. This method should be mainly emphasized in teacher education curriculum as many untrained teachers enroll for getting B.Ed degree through open and distance learning. PBL pedagogy enables them to learn to solve challenging problems that are authentic, curriculum-based, and often interdisciplinary. Learners decide how to approach a problem and what activities to pursue. They gather information from a variety of sources and synthesize, analyze, and derive knowledge from it. Their learning is inherently valuable because it's connected to something real and involves adult skills such as collaboration and reflection. As future teachers they learn to guide, advise, direct and manage student's work. The role of electronic support for this type of distance course has also been considered as valuable support to implement PBL. It is an excellent vehicle for helping students learn to carry out authentic, multidisciplinary tasks in which they budget their time, make effective use of limited resources, and work with other people. There is a rising tide of computer facilities and connectivity in schools. In addition, many schools and school districts are placing considerable emphasis on technology-oriented professional development. This combination of improving facilities and increasing teacher knowledge supports the increasing use of information technologies in project-based learning.

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