The great thinkers and philosophers of our country like Swami Dayananda, Swami Vivekananda, Aurobindo and Gandhi have described education as a man-making process. Bringing out the latent sublime qualities within the individual and providing for the all-round development of the personality including the physical, mental, intellectual and spiritual aspects should form the goal of education. Education has been considered as one of the very important dominion in our national life as the system of education constitutes as the foundation of the legal, civic and administrative also developmental domains of future unfolding India. The purpose of this paper is not to provide any detailed plan of educational reform, but it suggests that there is no dearth of educational innovative ideas, but we are lacking in putting them into reality. It recommends that the main purpose of education should not become to create just human robots or making a skilled manpower, but an immediate action is needed to provide the necessary roadmap for future policy and concrete action. Project-Based Learning (PBL) is an individual or group activity that goes on over a period of time, resulting in a product, presentation, or performance. It is now used at many professional institutes to promote lifelong learning, open inquiry, teamwork, and critical thinking. Traditional learning is being replaced by PBL which is new and innovative educational technique. The Present study aims at finding the effectiveness of PBL in professional education especially in MBA Program. Following an overview of the characteristics of the project-based learning method, a comparison of PBL has been made with traditional learning with faculty and MBA students' perceptions. The comparative value of scores supported by data on outcomes that have been studied, reveal that t-values are significant at 0.01 levels. It is concluded that the project-based learning method can yield a surplus value compared to more traditional types of education and training.

Keywords: PBL, professional, education reforms, skills.
INTRODUCTION

We live in the era where educational systems at all levels are increasingly having a reach to global level. Many watchwords such as change, innovation, and adaptation are repeated again and again in the educational professional arena. With the emergence of technology and the availability of huge amounts of resources at one’s fingertips, the change in the education practice, particularly at the MBA level, is more eminent than any other time before. Professional education has been criticized for emphasizing too much theory and esoteric research which has little to do with the real business world. Literature in this area has been focusing on the methods of designing and implementing MBA programs and enabling tools, such as the PROJECT-BASED LEARNING which is a promising and unique technique. PBL provides a better means to learn for working professionals. Students learn by solving problems rather than by taking traditional courses commonly conducted in traditional classroom-based education and are encouraged to take ownership of problems and processes. In PBL environment, learning is organized around projects that involve students in design, problem solving, decision making, or investigative activities; it gives students the opportunity to work in groups on projects related to the their working environment relatively independently over extended periods of time, and ends in realistic products or presentations by each group. The role of faculty member is to be a facilitator and to design appropriate and realistic cases, which not only will allow students to discover relevant issues for research and investigation but also challenge both the level of understanding and the relevance and completeness of the issues studied. Gradually, the students take over the role of a facilitator themselves as they become effective self-directed learners.

OBJECTIVES OF THE STUDY

- To explain the concept and importance of Project Based Learning (PBL).
- To investigate the effectiveness of PBL in professional education especially in MBA Program.

RESEARCH METHODOLOGY

It contains following procedures:
- **Research Design:** Being the study exploratory in nature, it has gone through collection of data from past participants (Control group) and current participants (Experimental group) of MBA without Boundaries (MAWB) program and analyzing the same using the mean, standard deviation and t-test etc.
- **Data Collection:** Both types of data i.e. primary as well secondary have been used. Qualitative data was collected through interviews, both face-to- face and in the form of electronic mail.
- **Sampling Unit:** The participants are students who are enrolled in the MBA program. Two samples have been taken, one of the past participants (control group) who passed MBA not being the part of projects and other one of current participants (experimental group) who are associated with projects of companies.
- **Research Method:** Research is based on sampling not census method.
- **Sample Size:** Following two samples were taken:
  1. Control group: 100
2. Experimental group: 100
   - **Sampling Type:** Sampling is deliberated/ purposive in nature.
   - **Analyzing Tools:** T-test has been used to know the significance of difference between scores of control group and experimental group on which basis level of effectiveness of PBL has been measured.

**PROJECT BASED LEARNING (PBL) CONCEPT**

Project-based learning, or PBL, is the use of in-depth and rigorous classroom projects to facilitate learning and assess student competence. Students use technology and inquiry to respond to a complex issue, problem or challenge. PBL focuses on student-centered inquiry and group learning with the teacher acting as a facilitator.

The core idea of project-based learning is that real-world problems capture students' interest and provoke serious thinking as the students acquire and apply new knowledge in a problem-solving context. The teacher plays the role of facilitator, working with students to frame worthwhile questions, structuring meaningful tasks, coaching both knowledge development and social skills, and carefully assessing what students have learned from the experience. Advocates assert that project-based learning helps prepare students for the thinking and collaboration skills required in the workplace.

Rigorous and in-depth Project Based Learning:
- **Is organized around an open-ended Driving Question or Challenge.** These focus students' work and deepen their learning by centering on significant issues, debates, questions and/or problems.
- **Creates a need to know essential content and skills.** Typical projects (and most instruction) begin by presenting students with knowledge and concepts and then, once learned, give them the opportunity to apply them. PBL begins with the vision of an end product or presentation which requires learning specific knowledge and concepts, thus creating a context and reason to learn and understand the information and concepts.
- **Requires inquiry to learn and/or create something new.** Not all learning has to be based on inquiry, but some should. And this inquiry should lead students to construct something new – an idea, an interpretation, a new way of displaying what they have learned.
- **Requires critical thinking, problem solving, collaboration, and various forms of communication.** Students need to do much more than remember information—they need to use higher-order thinking skills. They also have to learn to work as a team and contribute to a group effort. They must listen to others and make their own ideas clear when speaking, be able to read a variety of material, write or otherwise express themselves in various modes, and make effective presentations. These skills, competencies and habits of mind are often known as "21st Century Skills".
- **Allows some degree of student voice and choice.** Students learn to work independently and take responsibility when they are asked to make choices. The opportunity to make choices, and to express their learning in their own voice, also helps to increase students’ educational engagement.
Incorporates feedback and revision. Students use peer critique to improve their work to create higher quality products.

Results in a publicly presented product or performance. What you know is demonstrated by what you do, and what you do must be open to public scrutiny and critique.

Project-based learning creates opportunities for groups of students to investigate meaningful questions that require them to gather information and think critically. Typical projects present a problem to solve (What is the best way to reduce the pollution in the schoolyard pond?); a phenomenon to investigate (Why is best way to stay on a skateboard?).

DATA ANALYSIS

Being the qualitative investigation, scores were gathered through the interviews to capture students’ perceptions and views regarding the effectiveness and usefulness of project based action learning approach. Additional discussions with faculty members were combined, and then compared with the participants' feedback in order to understand the extent of the outcomes.

Data in the form of narrative and participant interview transcripts in term of scores at quality rating scale were analyzed and reported using differential analysis. The interviews focused on the skills gained by the student in certain business areas given in Table 1.

Table 1: Effect of PBL on Professional Education

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Parameters of Skills</th>
<th>Control Group Average Scores</th>
<th>Experimental Group Average Score</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>1.</td>
<td>Collaborative Skills</td>
<td>19.16</td>
<td>3.64</td>
<td>25.84</td>
</tr>
<tr>
<td>2.</td>
<td>Technical Skills</td>
<td>6.19</td>
<td>1.61</td>
<td>9.84</td>
</tr>
<tr>
<td>3.</td>
<td>Strategic Thinking</td>
<td>96.89</td>
<td>2.85</td>
<td>99.35</td>
</tr>
<tr>
<td>4.</td>
<td>Problem solving Ability</td>
<td>12.98</td>
<td>2.12</td>
<td>13.89</td>
</tr>
<tr>
<td>5.</td>
<td>Leadership Skills</td>
<td>7.32</td>
<td>1.93</td>
<td>7.98</td>
</tr>
<tr>
<td>6.</td>
<td>Research Attitude</td>
<td>55.67</td>
<td>11.76</td>
<td>64.93</td>
</tr>
<tr>
<td>7.</td>
<td>Self Learning</td>
<td>10.45</td>
<td>1.95</td>
<td>13.65</td>
</tr>
</tbody>
</table>

Note: All t-values are significant at 0.01 levels.

Results reveal that average scores (that are the parameters of skills) of experimental group are higher than control group which indicates the positive change in skill development because of PBL applied in MBA Program. Difference in average scores of both groups is also significant which has been measured in terms of t-values.

Although skills development is subjective in nature, participants generally indicated that the program has greatly improved their leadership, research, analytical/strategic thinking, creative, and technical skills, particularly computers and other technology-based, e.g.
computerized spreadsheets and Internet search. Some participants who came to the program without any significant knowledge or skills in information technology felt that mastering information technology prior to joining the program could save them from spending the extra time learning the skill during the project. All participants agreed that their ability to integrate information from a wide variety of sources and skills in financial analysis, business modeling, collaboration & working in teams, working with ambiguity, and selling ideas & marketing have significantly improved.

CONCLUSION

The present study reveals that project-based learning (PBL) in professional education especially in MBA Program generally enhances student analytical, inter-personal, leadership, technical and collaborative skills. In general, participants agreed that PBL greatly contributed to the students’ business knowledge and research aptitude. However, it is not clear if some professional skills that the students have are indeed due to MBAWB, considering that many of the participants are highly experienced and/or have been working for several years. Concerns raised include the thrust for more instruction in the area of financial management and accounting, extra instruction time and workshops that are driven towards certain projects during residency weeks, and supporting material such as online tutorials and links to useful resources on the subject. In terms of online collaboration and communication, there is a need for more faculty member’s feedback and direction during a project. One specific suggestion was to hold a class wide NetMeeting session during the first few projects to ensure everyone is comfortable with the learning mechanisms and goals. As a final point, MBAWB program needs to be marketed more actively and nationally to enhance its reputation in particular and the reputation of the university in general. This research has been conducted for MBA program; therefore, caution is warranted in generalizing its results to other professions. Project-based learning is a proven educational technique, but working environments exercised in MBA may not necessarily be applicable to other professions elsewhere. Nevertheless, the result of this study suggests the potential of PBAL, when used in MBA professional education, to enhance student’s technical and analytical abilities. The use of modern communication tools gives PBL greater potential and the advantage to work even more successfully.
REFERENCES


