

Potentialities and Challenges of Project-Based Method in Pedagogy

Shyam Kumar Rai
Assistant Lecturer, Diktel Multiple Campus
shyamrai054@gmail.com

Abstract

Project based method is one of the most effective processes in pedagogy. Learning by doing theory is implemented by this method. The prime objectives of this study are to investigate the benefits and challenges of project-based methods and contribute to pedagogical process through new findings. Its findings will help teachers to develop their professional skills and accordingly it helps to develop the learners' intellectual as well as social skills. The target populations were selected from school students and campus lecturers for its findings. Purposeful sampling method was administered to select the sample population. Semi structured questionnaire, focused group discussion and observation were administered to collect the data from the respondents. A mixed approach is applied in this study. Previous literatures and present application condition of project method were methodologically analyzed. After its analysis, previous literature and current application conditions of the project-based method were traced similar.

Key Words

Project based method and challenges, investigate

Introduction

The right to education to humans is universally accepted as human right in the world. The member countries of the UNO have ratified to the provision of right to education .So, being the member countries of the UNO, Nepal has provisioned right to education as fundamental right. Each Nepalese citizen has the right to education as provisioned in the constitution. Education for all (EFA) is a global effort for providing education to the people of the world. Inclusive education and special education are the effective thoughts and are being implemented in Nepal through school education system. School is the prime agent of educating the students. This article issues the project-based method used in pedagogical viewpoints.

There are different learning theories, methods, approaches and techniques in pedagogy which are propounded by psychologists in pedagogy. Teachers are using different kinds of learning theories, methods, approaches, and techniques in pedagogical processes. One of them is project-based method and is methodologically studied and has been presented its findings. It is investigated that project-based method is holistic, problem solving, autonomy, experiential, recreational, and realistic learning process. It is based on learning by doing theories. Anthony (1963,63:64 cited in Phyak &Sharma,2006) defines 'an approach is axiomatic,a method is procedural... within one approach, there can be many methods.' During teaching and learning activities, different processes of project method have been applied. After its implementation, what benefits and challenges can be found? And finding challenges is the prime focus of this study. What sorts of benefits and challenges were in the past and what sorts of benefits and challenges are found at the existing period? These were the prime questions of this study. The findings of this study are traced to previous literatures and found similar. Research work proved

that project-based method is an effective way in pedagogy because it causes changes in all-round development of learners positively. It fosters intellectual knowledge, social skills, soft skills, transversal skills or 21st century skills to the learners.

However, teachers are lacking techniques and skills to implement the project-based method. In this study, it is found that most of the teachers are not well equipped with skills and teaching aids. The respondents of focused group argued that eighty percent teachers are not relating the technology with pedagogy. Dhakal, (2023) argues 'it is important for teacher to learn professional skill like digital tools, pedagogical use of assessment and evaluation; and skill related to selecting, designing, and applying quality learning materials.

This study has attempted to investigate the benefits and challenges of project-based methods and is expected to have remarkable contributions to promote project-based methods in teaching learning fields.

Literature Review

Project based method is an important value in teaching learning process. There are many methods of teaching which are being used in the classroom by teachers. Lecture method, note dictation, discussion, the assignment, question answer, problem solving, project-based method, etc. are some of the methods of teaching. These methods are used as the need of the lesson, level of students, available of means and resources. All methods have equal value in their own field. Learner engaged method, cooperative learning, group engaged learning and project-based methods are more effective and productive teaching than non-project based or theoretical based method of teaching and learning. Project based method is primarily discussed in this article. According to Kochhar (1985), "project method is the most concrete of all types of activity method. It provides learning experiences suited to individual differences" (p.109). There is no doubt that project-based teaching provides concrete ideas with real experiences to the learners in teaching learning process but it is not easier to create such an environment where the learners get the real experiences.

The characteristics of project-based teaching are productive and real life related which takes place in a natural setting. According to Kilpatrick (1992) says, "A project is a wholehearted purposeful activity preceding in a social environment"(as cited in Mongal and Mongal (2010, p.253). Project based methods are spontaneous, interesting, purposeful, problem oriented which should be conducted in a social setting environment. There might be challenges to the teacher and students to set and manage the social environment. Students must acquire knowledge and skills with the help of teachers in a social environment which is not a very easy task. Mangal and Mongal (2010), points the following merits of the project strategies (a) psychological sound (b) Practical and applied approach (c) Provides integration of physical and mental activities (d) democratic ways of teaching (e) development of social virtues (f) positive attitude towards manual work (g) provides teaching through correction. Similarly, Sharma (2012) argues that the principal features of project are (a) group centered experience (b) students' responsibility for planning and carrying out and presenting task (c) sequential activities (d) use of range of skill (e) activities outside the classroom and (f) the study and use of authentic materials. So, the characteristics and principal features of the project method reveal that it is such method which enables the personality development of learners. It builds up intellectual and social skills of learners.

According to Agrawal J.C. (1983:139-140), provides ten merits of project methods. The merits are: (a) Based on the law of learning: It is in accordance with the psychological law of learning. It is based on the law of readiness, law of exercise and law of effects. (b) Related with life: Project method provides the opportunities to acquaint yourself with the real world of life. They learn life situated skills, knowing and experiences. (c) Correlates all the subjects: The project method helps to unite the different knowledge from the different subjects. It assists to learn integrated skills, experiences, knowledge from different contexts. (d) Trains for democratic ways of life, (e) Gives training in citizenship (f) Upholds of the dignity of labor, (g) stresses problem solving (h) Provides a source of happiness for the backward (i) Provide freedom.

The above-mentioned merits of the project method are expected to be effective till to these days. However, the project method might have been assisted in other ways which have not been identified yet. The study made on this project method claimed that it has more benefits than challenges. Many researchers viewed that project method provides more benefits. But what are the ways of motivating and engaging them when they are distant from the teachers. Kuppuswamy, B. views that: "Motivation in education means inculcating and stimulating interest in studies and other such activities in pupils. It involves the understanding and use natural urges of the child and assisting him in acquiring new desirable motives" (p.129).Laury(1987) ,presents the following types of project methods: (a) practical task such as the construction of a useful article, (b) appreciation of an aesthetic experience - to enjoy some experiences, (c) problem solving, (d) mastery of skill or knowledge. It can be claimed that how can the above project method be applied and do these enhanced the adequate skills to the learner. To apply such a project method what are the prerequisites and what are the outcomes after its applications.

Pedagogy should assist in the personality development of a child. In the absence of personality development, a child cannot face all the challenges in their lifetime. For this purpose, they need adequate skills. Problem solving, information and technology, interpersonal, emotional management, leadership, communicative, cooperative, creative, stress management, and decision- making skills. Now, the question might be raised that does project- based method enable these skills to the learners? This is the prime challenging issue. Sharma and Phyak (2006), views "Project work integrates language skills through various activities.It helps to develop communication skill, research skills and social skills" (p.132).

Agrawal, J.C. (1983:140), mention the demerits of the project based methods: (a) neglecting intellectual work, (b) Haphazard and unconnected teaching, (c) Upsetting of the time table, (d) Neglect of drill work, (e) difficulty in getting suitable text book, (f) artificial Correction, (g) unsuitable for the shirkers and shy, (h) too much reliance on young children, (i) Lack of competent teacher and (j) unsuitable for transfer.

To solve these challenges enough means and resources are required. It is claimed that all the above- mentioned demerits may not be true because project methods teach all the skills integrated ways if the social setting environment is ensured to the learners. Mongol and Mongol (2010, pp. 256-257), mention the demerits of project-based method: (a) Financial constraints, (b) Too much time consuming, (c) Too much expectation from the teacher, (d) Not helpful in providing systematic and adequate learning, (e) Practical difficulties. Certainly, there have emerged the benefits and challenges of project- based methods in pedagogical process. Kochhar,

S.K. (1985, pp. 283-284), views the following essential of a good project. (a) The project should have evident worth for the individual or the group that undertakes them, (b) The project must have a bearing on a great number of subjects and knowledge acquired through it may be applicable in a variety of ways, (c) The project should be timely, (d) The project should be challenging, (e) The project should be feasible. The project method has many merits as well as demerits too. Its benefits and challenges found from the literature review are still existing in these days too. The respondents i.e. 160 students and focused group five lecturers' responses and the views from the literature are traced similar.

Research Method

The study is based on mixed methods. The questionnaire was well designed, both open-ended and close-ended were structured and administered to the respondent. Focused group discussion with lectures was conducted. Regular observation to the focused students' group was adopted. Likewise, journals, research, books, internet were consulted as the research method. So, both primary and secondary methods have been applied in this study.

The purposive sampling procedures were applied in this study. The target population for this study were selected from the Diktel English Secondary Boarding School, Khotang District for the students and Diktel Multiple Campus, Diktel Khotang as the lecturers. All the students from class none to twelve were the sample population. There were 160 students in the study group. Five experienced lecturers were selected from Diktel Multiple Campus. The objectives of the study had clearly told them so that they were motivated to respond to the question. The respondents from the campus were post graduated and experienced above 20 years. Gender and age categories were neglected.

To collect the data from the respondents the following tools were used. Questionnaire: Both close and open-ended questionnaires were structured and administered to the respondent. Interview Guidelines: To ask the question to the respondents' questions, list related to subject matter were structured in need base. Observation Guidelines: Observation forum was prepared and used for four years. The important data were noted in the personal diary as journal entry.

Interviews, focused group, discussion and observation were used as primary method. The researcher structured both a close and open-ended questionnaire for the interview. Five experienced lecturers were interviewed as selected by sampling procedures. The same interviewees were asked to participate in focused group discussion. "Group discussion is used to refer to a situation in which a small number of persons meet face to face and through free oral interaction among themselves, exchange information or attempt to reach a decision on shared problems." Mohan and Baneri (2019:p.102). Researchers used to assign the project work to the students from class 9 to 12 and recorded the response of the students. 160 students' outcomes were observed for four years. The students were from different caste, religion, speech community and educationally different families but economically almost similar i.e., medium class. Contents were searched, gathered and analyzed. Library visits, book study, journal article and online sources were used as secondary method of data collection. The primary method of data collection is highly focused. Data and information collected from primary and secondary methods were explained, discussed analyzed and interpreted to draw out the insight. Questionnaire, interview guideline and observation guidelines were structured and administered to the respondents to investigate the benefits and challenges of project-based method in pedagogy. This data collection process assisted to investigate the merits, demerits, problem and

issues of project-based method in the field of teaching learning process. The questionnaire and guideline were structured covering the area from the benefits and challenge of project-based method in teaching learning field. There was no provision of providing any incentive to the respondents for their valuable support.

Result and Discussion

This study intends to investigate the benefits and challenges of project-based method in pedagogical process. It is related to learners and their learning style. The ways of learning vary in numbers but how does project based method assist in their learning and is it still deserve the value in pedagogical process, are also the case of findings. "Learning is the process by which an activity originates or is changed through reacting to an encountered situation" (Hilgard 2007: p.3). Project based method certainly acts activities which is defined by Hilgard, but it is not enough all. So, researchers need to find other variables which play the role of bringing benefits and challenges.

According to researcher's observation for four years in Diktel English Secondary Boarding School there were various benefits and challenges. Students were given assignments to accomplish the project work. Most of the students were interested in getting involve in project works. They were given to find actual usages of language in a community, to explore new knowledge related to historical, religious places, political views, identify the social problems and solutions, developmental activities being run in the society, environment and its impact, developmental planning and its implementation, discrimination in the society, status of woman, etc. were the subject matters for project works. Eighty percent students were engaged in project and they learnt by doing work and experiencing the realistic situation. Twenty percent students did not like to engaged in this method and like to copy from others. It is an interesting matter that 80% students were engaged in project method but when the final written report is asked to submit to the subject teacher only 15% students used to submit. Mongol and Mongol (2010:p.252). Views that the step for conducting project method are: (a) Providing a situation (b) Choosing a purposing of the project (c) Planning of the project (d) Execution of the project (e) evaluation of the project (f) recording of the project. In this six steps, step six is found incomplete by the students. This is the challenging task to the teacher. Students claim that this process for learning is recreational as well as freedom too. they prefer project work than the homework. 80 students prefer project work than homework and responded that project method makes clear understanding and long lasting to remember. In orther hand, focused group lecturer claim that the project method is one of the real based teaching process. They recommended to increase the project method and decrease homework in pedagogical process.

According to respondents' view and content analysis, the following benefits of the project are stil valuable.

1. **Holistic Learning:** Project based method provide the opportunities to learn in hollistic approches. Integrated learning process os applied in this method. A students learn intellectual knowledge, social knowledge and skills. They learn emothional manging skills communication skills, leadership skills, etc. These skills make theirs live easier.
2. **Problem Solving:** Project based methos provides ample opportunities to encountered the problem. Students they should solve the problems themselves finfing the good ways. Teachers just guide them but do not solve the problems. So, it develops the skills of

problem solving to the students. It builds the skills of creation, skills of making right decision, skills of identifying problems and its solution. If they are able to solve the problem, they become the ideal person in the society.

3. **Autonomy:** it is against of spoon feeding and jug and mug system. Project method ensures the learners autonomy. Making note by teacher and parroting by students do not promote any creation. This is not called learning. In this method students learn independently as their own speed, desire and need. They create different styles of completing project. They become independent not dependent in learning process. They are free to decide themselves. They do the tasks on their own judgements and control. External controls are avoided. It also fosters the critical thinking.
4. **Experiential Learning:** All five sense organs involve in project method. These sense organs are the gateway of knowledge, learning by doing is the prime way of learning in this method. The more they do the activities, actions, experiments, observation, etc. the more they experience the more they learn. Project method provides this opportunities. Active involvement on any participation is made in this method.
5. **Recreational Learning:** Project method recreational environment for learning. It reduces the stress, boredom and create the recreational environment. It focuses in joyful learning. Student become independent, self-governed. So they learn in their joyful environment in comparison to other method.
6. **Realistic Learning:** Project method is based on natural setting. Students mostly learn through first hand data. Factual and truthful learning take place in this method. Students should reach in real field to study the subject matter in depth. They will not be the space for imagination and guesses for finding the knowledge. They need to learn through reliable proofs and evidence. Contextual and pragmatics learning takes place in this method.
7. **Ownership:** The learner takes ownership in any activities which are performed and produced the outcomes. They feel responsibility and accountability of their performance. They become able to response any questions raised by concerned people. The feeling of 'my work and my outcomes' get increased in students. Students own their works and its outcomes or report as intellectual property. They have right to use, transfer, manage and take benefits from it.
8. **Active Learning:** Students participate actively in their project. The theory of self motivation is applied in this method. Active participation enable them deeper understanding and quick learning and responding. Students continuously engage in their work and become busy in learning new ideas and skills. This new ideas and skills contribute to the society for its progress. It coordinates the speech and action jointly which is related to stimulus-response of psychology.
9. **Collaborative Learning:** Students in team work to solve the problem. They involve together in discussion to achieve the objectives. They interact and share the knowledge. It involves the discussion, peer work, group work and joint problem solving activities. They use maximum cooperative activities in difficulties. It becomes more interactive voluntary cooperative and establish primary relationship.

10. Application of Knowledge: Having only theoretical knowledge is insufficient to the learner. So that practical knowledge is most required to the learner. Project method provides the opportunities to apply the theoretical knowledge in practical life. It helps to develop the practical skills throughout the student's life.
11. Discovery: In project method, learners learn doing the tasks. They involve in the authentic situation, observe, experience and feel the real context as a result they can discover new thoughts.

The following challenges can be drawn from the study.

- i. Time management: The project method is time consuming. The researcher found it from the long observation and experience. Students have to study seven to eight subjects. There is a challenge to conduct project for each topic of subject to manage the time. It takes long time to complete. The result or output can not be achieved in short period of time. So, management of time is challenging. It is more procedural so it requires more time.
- ii. Risks Management. In the query of risks management with five lecturer group, they claimed that it has many risks and teacher feel difficult to manage them. Specially, when the learners are sent for out to complete their assignment as a project. They might incur the risks. Like conflict, accident, sickness, unsocial behaviour, of the students are risks managing factors to the teachers.
- iii. Creating the context. The researcher's observation shows that there are challenges of creating the real situation in typical cases. For example, teacher wants to get experience of going for funeral process going the marriage ceremony being a member, as like typical ritual performed by community. It is hard to find such environment to realize the reality.
- iv. Diversity Management: Students are individually different. They are different from each other. Focused group of this study views that managing different students is challenging. Their interests, needs, skills are different from each other. They might be the barrier of culture, religion in their learning. Likewise physically able and disabled can not perform the tasks parallelly.
- v. Source management: Teachers are the source of knowledge, skill and experience and they are well equipped with these. But managing other sources like economics, technologies and the data collecting tools. It is a challenge to increase the access of source to the students.

Except these, there are various challenges of project based method in pedagogical process.

- a. Project based method integrates different skills. It is difficult to prepare the tools to evaluate those skills.
- b. They need to complete the assignment in team or group. If misunderstanding takes place, the immediate settlement of conflict by teacher is not seen possible.
- c. Well preparation is needed to run project. Unpreparedness will not bring the factual result.
- d. Immediate feedback and correction are must required aspect in learning. But it is not possible except some cases.
- e. Regular guidance and instruction are also an important variable to cause learning. It is also hard to manage. Occasional guidance and instruction might not achieve the objectives.

Project based method is one of the most effective learner engaged method. Students learn by doing the tasks. This method assists to contrast the new knowledge, and skills. It develops not only intellectual knowledge but also develops soft skills of the students. Learners. Learning through project based method will feel, realise, experience, understand the real world. Realization and actualization based learning are the good aspect of this method. Both theoretically and practically this method is found better but managerial aspects found challenging.

References

- Agrawal, J.C. (1983). *Teaching of social studies*. New Delhi: Biksh Publishing House Pvt.
- Kuppuswamy, B. (1991). *Advanced education of psychology*. New Delhi: Sterling Publisher
- Jha, A. K. (1995). *Method of teaching health education*. Kathmandu: United Graphic Printer Pvt.
- Hilgard, E. R. (2007). *The theories of learning*. Kolhapur India: Surjeet Publication.
- Kochar, S.K. (1984). *The teaching of social studies*. New Delhi: Sterling Publisher Private Limited
- Kochar, S.K. (1985). *Method and techniques of teaching*. New Delhi: Sterling Publisher
- Mangal, S.K. & Mangal, U. (2010). *Essentials of education technology*. New Delhi: PHI Learning Pvt.
- Mohan, K. & Banerji, M. (2019). *Developing communication skills*. India Trinity
- Sharma, B. K. & Phyak, P. (2007). *Teaching English language*. Kirtipur Kathmandu: Sunlight Publication.
- Sharma, B. (2012). *Advanced English language teaching methodology*. Kirtipur Kathmandu: Sunlight Publication.