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SIGNIFICANCE OF PROBLEM-BASED LEARNING: AN EVALUATION (A STUDY OF WORKING MEDIA PROFESSIONALS IN OMAN)

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Abstract

Problem-based learning (PBL) is an approach that is an encouraging way to acquire information to support the learning process. The main goal of this learning approach is the development of leadership, analytical thinking and problem solving skills. This is basically a student-centered methodology which also focuses on life skills. This is really an innovative learning approach that emphasizes the importance of problem-solving skills and the ability to self-study. In the present time, such a learning approach is very much needed to prepare professionals for the current job market. This approach, in general, facilitates learning in a real-time situation, and the tutor acts as a supporter and facilitator only. The understanding of the significance of PBL in the present time is very crucial for any higher education institution as it gives students freedom to think and innovate as per knowledge requirements, which gives students a chance to develop an integrated approach to acquiring knowledge, skills, and attitude. The present study mainly focuses on the need for PBL and used focus group discussion on selected parameters related to PBL. The methodology used in the study was largely qualitative research based on primary data.

Keywords: Problem-Based Learning, Working Professional, Student Centered Leaning, Skill Development

1) INTRODUCTION

Problem-Based Learning (PBL) is a dynamic learning strategy that allows students to take the initiative and become responsible for their academic growth and development. It also offers students the opportunity to collaborate and develop learning abilities under their own guidance and cultivate innovative idea for professional growth. The core factor in PBL is basis of collaborative learning which is absolutely student centric. The goal of PBL is to encourage students to use their skills for idea generation in decision-making with an emphasis on problem solving which helps them be more attentive and responsible for their own learning. In the present era of the contemporary teaching and learning process, one of the main tasks of modern higher education is the development and implementation of pedagogical practices that tend to develop students' ability to effectively apply knowledge for effective learning (Dochy et al., 2003). Particularly, the main objective of learning in higher education is to prepare students for the dynamic job market. Many universities have developed skills-based curriculum programs to meet the needs of the modern job market and industry, as today's job market is entirely production-based, and employees are expected to have a skill-based approach to manage idea generation. We are living in an information society, which is critical to understand. Information is mainly based on the effective use of media, and this clearly indicates the flow of information. Innovation and idea generation are critical components of any societal development. As a result of globalization and changing job market patterns, more problem-solving approaches are required and must be addressed in the teaching and learning process; in this regard, problem-

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based learning must be aligned with teaching pedagogy and learning settings.

Higher education institutions require teaching faculties to develop teaching pedagogy and train students in order to overcome complex problems in the professional market and even at their workplace (Van Mohamed et al., 2010). One approach that improves these skills in students is Problem-based learning. The concept has been widely recognized and implemented in various educational fields and contexts to promote critical thinking, time management and problems solving approach (Dochy et al., 2003; If and Goh, 2016).

In the present study, the research mainly focused on the significance of problem-based learning as a need for an hour. This approach is truly innovative in terms of the student's overall development because it teaches teamwork, cooperative learning, and idea sharing. As a result, this pedagogical approach is required in today's higher education system as a part of curriculum because it is now necessary to prepare students not only with fundamental skills but also with modern problem-solving and critical thinking skills. In this context, the role of teachers in academic institutions is currently changing from one of simple knowledge transfer to one of creativity, intelligence, problem solving, and critical thinking skills-based educators. Future teachers need to acquire the skills, attitudes, and trends to facilitate students' complete skill-based development suitable for the complex conditions of the job market, as the needs of the present job market have totally changed, aided by the constant evolution of technologies.

2) NEED OF PBL APPROACH

Problem-based learning (PBL) is seen as a pedagogical approach to improving students' attitudes towards problems and real-life situations. The PBL approach has been used to motivate students to become independent workers, critical thinkers, and complete learners. Teachers are only there to provide support and resources. The main responsibility lies with the students to think and innovate for the right solution, along with time management, data management, and collaborative learning. This approach is unquestionably a very important step in demonstrating students' ability to work independently and conduct research-based analysis of problems and situations. Problem-based learning is a curriculum and education development system that simultaneously develops problem-solving strategies and interdisciplinary knowledge and skills, putting teachers in an active role of facilitator, not tutor,that reflects the core role of students and their approach to problems and strategy to reach a solution.

Problem-based learning contains problems that relate to both theory and practice, along with real-life situations. De Simone (2008) explained how situation-based problems can be understood and handled by students' creativity and independently; this shows that this learning approach is very effective in improving the ability of students to identify problems, create solutions, and apply practical and bibliographic resources to solve problems. The author's intention was to examine the problem-based learning pedagogical approach in higher education, with a focus on the media industry in the Oman job market. The purpose of this study is to understand and evaluate the importance of problem-based learning in developing problem-solving skills. The present study also intended to understand this approach from a student-oriented point of view, but this was not limited to this.

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3) REVIEW OF LITERATURE

According to Hung et al. (2008), problem-based learning is possibly the most innovative learning method in the history of education. Wood (2003) claims that an application is a method in which a student uses and refines information by using their own concepts; it shows the independent research-based approach of students and that the creation and presentation of information are very effective in achieving a learning goal under critical scenarios. PBL is a learning method that applies learning to complex problem-solving contexts. This certainly allows students to check how the facts they have learned relate to a particular problem. This makes you wonder what you need to know (Borhan, 2004). Problem-based learning helps students become independent and critical thinkers by using knowledge for action (Borhan, 2014).

Problem-based learning is basically moderated by the experienced teacher, who supports and provides good approaches to the discussion. This approach differs radically from traditional teaching styles in that it focuses on teaching based on the principle of "problem first", rather than the more common "subject first" method, which uses scripts to illustrate previously studied material. Such a concept mainly encourages and guides participants to solve the problems they identify. The rationale for promoting a PBL is to know the analytical skills of the participants to develop depth of learning with a necessarily collaborative way of learning (Maudsley, 1999). Many scholars also suggested that there has been some debate about whether a speaker should be an "industry expert" on the topic being discussed, but the consensus is that experience of team dynamics combined with positive enthusiasm is more valuable than in-depth knowledge of the topic. Facilitators' duties when applying may include encouraging critical thinking and facilitating independent learning. The best part of problem-based learning is to monitor team progress and create a learning environment that stimulates team members, promotes deep understanding, and promotes teamwork (Azer, 2005).

Kilroy (2004) defines the problem based learning as a learning method that promotes both the goals of the program and the development of students' critical thinking and problem-solving skills by addressing real-life problems. This leaning methodology is basically "an educational method that initiates students' learning and creates the need to solve a real problem" (page 486). Since problems trigger the learning processes of the students, the quality and the problem scenario are very important for the learning of the students (Sockalingam & Schmidt, 2011). The mentioned approach guide students to a specific area of work during the learning process in order to achieve their goals (Wood, 2008). In the similar context, Burrows, 1996; points out six qualities for effective PBL, the first quality is that learning should be focused on students. Secondly, the training should be conducted by a small group of students with a teacher. Thirdly, the pilot should act as a moderator or tour guide. Fourthly, real problems may arise during the training sequence before preparation or study. Fifth, the problems that have arisen can be used as a tool to acquire the necessary knowledge and problem-solving skills necessary for solving the problem. In addition, new knowledge must be acquired through independent learning. Some believe that it is also necessary to emphasize the sixth quality: the skills necessary for problem-solving competence, which students learn by analyzing and solving typical problems around

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themselves. The cited literatures indicate the significance of PBL in the holistic development of a student from scholar to professional specialized in producing quality ideas and innovative information management. This literature review also indicates the crucial issues that make it different from conventional teaching and learning methodologies where students are most important and tutors just facilitate the students.

4) 3C3R MODEL AND INTELLECTUAL THINKING

Research on the problem-based learning approach related to students learning outcomes certainly influences the techniques of teaching and the students efforts in relation to the knowledge-based learning framework. While using the PBL approach, educators and practitioners must see and understand the concept and model of the 3C3R model (Hung, 2006) while developing the conceptual framework of problem-based learning. Scholars have added that the development of such PBL pedagogy, based on the 3C3R model is really needed in the present academic system, which supports the development of deep knowledge and conceptual framework in academia and supports the practical structural design in the academic system across all disciplines. According to the given model of 3C3R, there are two parts to this model, which indicate content, context, and connections on one side and knowledge-based integration on the other, which is further based on research, reasoning, and intellectual reflections. This model is very decisive for people who mainly focus on skill development and self-learning skills. Ultimately, it clearly provides opportunities for the development of knowledge- and skill-based learning approaches. Intellectual thinking is an important rational skill that is certainly required to add value to advanced problem-solving skills and higher-order thinking for constructive research-based outcomes. In order to solve problems meritoriously, students must have analytical, critical, and metacognitive skills. The given model of 3C3R (Fig1) certainly supports the formulation, which requires analytical skills (Newell and Simon, 1972); further information evaluation requires critical thinking skills. Considering all such factors and parameters of PBL, it was concluded that this model is very helpful in the improvement of self-efficacy in self-management, problem-solving skills, and flexibility in choosing adaptation strategies to overcome difficulties in socio-academic collaborations undoubtedly provides better solutions and strategies to overcome a difficult lifestyle. It is generally recognised that the application promotes the development and acquisition of skills among students. As with teacher training, it is inevitable that primary school teachers will need to develop and acquire critical and analytical skills so that they can cope with the complexities and differences in their classroom.

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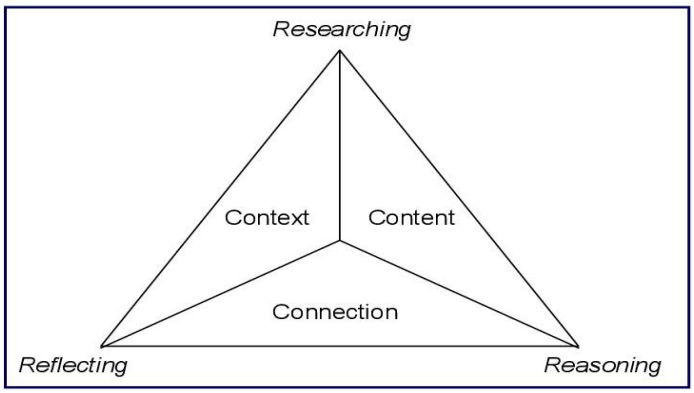

Fig 1: 3C3R Model

As per the model, the core of any PBL approach is the problem, and to deal with the problem, the entire concept of researching reasoning and higher-order thinking is the key to determining the success of all the related factors in designing a good problem. The main point of concern here is to understand that for effective PBL, effective problem design is very important, which would minimise the impact of problem-based learning. In the present research, this model has been taken into consideration to understand the effectiveness and methodology required to analyse the learning process and the significance of quality problems.

5) RESEARCH DESIGN

The research methodology used in this research work was based on qualitative research approach and the study is basically a pilot study in which 40 graduate working professional from the media studies industry were taken into consideration from Muscat region, Sultanate of Oman. The samples were selected randomly based on their CGPA, which is more than 3.5 on a scale of 5. Therefore, the samples had a good IQ level and were considerably intelligent, with a good learning approach and good command of academics. The samples ranged in age from 25 to 35 years old, with 21 males and 19 females chosen as a sample for the study. The samples were working in the media industry and have clear idea about the need and requirement of problem based learning approach to deal effectively with the modern skills such as Critical planning, time management and Data Management etc.

6) ANALYSIS AND DATA INTERPRETATION

The current research paper emphases primarily on the parameters considered for problem-based learning. The parameters taken into consideration were:

- Time management
- Digital Expertise
- Data management
- Collaborative skill

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Since problem-based learning is very much needed in the present professional working environment, considering the demand of modern job market, it can be say that we are in a result-oriented working situation where we need to take extra care to develop our innovative approach, ideas and management skills. Actually, the PBL practice is very much required to improve intellectual capacities of retention and critical thinking for a problem-solving attitude. The PBL is a demand for a new era of professional life. Keeping these factors in mind, the study attempted to comprehend the professional perspective on PBL and its effectiveness in the present scenario. Considering the factors of PBL, the samples were given a topic to share their experience of their professional lives and attitudes for the situational analysis. Based on the discussion related to the scenario of working on projects, timely delivery of tasks, priorities, and time and information management, the following parameters were taken as a basis to analyze the significance of problem-based learning (PBL). The fact remains that working professionals can give their valuable feedback and recommend that now is the time to shift our teaching pedagogy from conventional to modern.

Table 1: Parameter to Demonstrate the PBL Significance

Time Management	Digital Expertise	Information Management	Promote Collective approach
• Sense to create work schedule • Task deadline management • Prioritize task given and its timely completion	• Use right/appropriate software/ • Use of electronic tools	• Collect of data and its analysis • Critical analysis of data	• Team work and professional development • Problem solving approach and constructive criticism

The table 1 clearly indicated the learning methodologies under problem-based learning are centred on critical assessment, research based and management skill based approach. The samples indicated that the current market demand can be very much met with this PBL methodology, which is essentially a student-centric approach in which students use skills to solve problems, so their learning becomes more and more analytical.

Table 2: Sample responses on Problem Based Learning

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Time Management	53%	26%	7%	9%	3%
Digital Expertise	45%	42%	5%	6%	2%
Information Management	64%	31%	2%	2%	1%
Promote Collective Approach	61%	34%	1%	3%	1%

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7) DISCUSSION AND CONCLUSION

The purpose of this study was to investigate the significance of problem-based learning (PBL) on students' holistic development. The analysis of the responses evidently indicated that the PBL is a student-centric learning approach and is very crucial in the present scenario, as the students have given a freedom to innovate the skills and develop the solution for the problem and certainly it's a student's responsible for their overall development of the plan and its execution. As mentioned in parameter above, it's actually called "functional skills," The advancement of such functional skills gives an innovative direction to the student's overall growth and professional development. The study specifies (approx.75 percent) that the PBL approach is the best way to support and develop students' attitudes towards becoming better problem solvers and critical thinker, as they would be more confident in dealing with the problems they faced in everyday life, which is really a requirement of working professionally. The majority of the jobs, according to the respondents, require time management skills and the ability to prioritize tasks at work. PBL is the best method for instilling such confidence in students. Table 2 shows that improving learning habits are very important for working professionals. Majority of respondents supported the facts that these habits are more towards information management and the use of quality information at the right time as per consumer demands in media industry. As the samples were from media industries, the majority of samples, i.e., around 80 percent, mentioned that today, data management is a core area of our industry and includes critical analysis and a constructive approach towards data collection and its supervision. In this respect, a professional approach is very much required, which can only be developed effectively through PBL.

Another thing that was found in the study was to activate a sense of collaboration among the students to find effective solutions to the problems. Every student must participate in the discussions, which focus on the development of critical thinking skills and reasoning abilities as they experience problem-based learning. The facilitators also have a crucial role in encouraging every student to think at a higher level. The researchers intend to include something unique in the discussion to find out the innovation in the learning. The students stated here that sometimes the approach may be very traditional, but it was amazing to learn more by involving everyone in discussions.

The research was well coordinated with the 3C3R model, as the core idea of problem-based learning is also to develop quality problems based on research i.e. reasoning, knowledge and reflections. The facilitators must orient the participant well to consider all these constraints to understand content, contexts, and their respective connections to analyse the deep meaning of the overall conceptual framework, as these all would ultimately extend the horizon of quality discussions and associations for learning, such learning approaches are really interesting and have an impact on students, teachers, and authorities. This can be a small practical change for individual teachers or a significant change in the traditional way of learning. These kinds of activities are very helpful for the students to understand the values of communication, collaboration, teamwork, and most importantly, problem solving. More active expansion of these valuable skills at an early age can affect the overall learning environment of the school

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and area, putting high hopes on students and giving them the opportunity to exercise and learn through collaboration.

These skills are important in mutual learning, which may require information sharing, information retrieval, conversation between colleagues online, and feedback between colleagues online. Students should be equally involved in the discussion about implementation. Conversations allow you to remove confusion and questions and resolve them by listening, respecting the perspective of others and responding professionally. In addition, students should learn from each other and reflect on their achievements. The study also shows that the PBL approach are very much required to develop skills for better understanding of problems, describing a issues, finding appropriate solutions by using different tools of academic intellectuality and high order thinking to work in a team. Overall, students ' problem-solving skills increased, and students showed that the process improved their skills, such as understanding, solving, and planning a problem.

Summing up, based on the qualitative results of this study, it can be concluded that the problem-based learning (PBL) approach in teaching and developing curriculum can be a very good option for the improvement of teaching material in higher education academia, and it certainly improves students' leadership, managerial, and problem-solving skills. The research work very closely promotes the PBL approaches for effective language skills, collaborative skills, and attributes related to problem-solving skills.

In the research, the researchers also pointed out that problem-based learning is very helpful in the development of critical thinking in students, their approach to learning, and the development of new concepts. The research has clearly pointed out the scenario of students who were allowed to work on their critical thinking to complete their academic problems. In the task, the students are communicating with the coordinator to complete the work. Students also stated that they use different parameters. And divided the parameters among the team members for the discussion and finding out the solutions. One student stated that this approach to problem-based learning encourages students to seek more information and a deeper understanding of concepts. These practices helped the students search for ideas and realistic applications of the concepts.

8) RECOMMENDATIONS

Based on the results of the study, the following recommendation can be made: As per the analysis, the problem-based learning (PBL) learning approach have a great significance and based on the opinions of working professionals, it’s very much recommended that the curriculum and teaching materials must consider PBL approach in their syllabus and must monitor it’s effective execution in higher education academia and must design operational lesson plans as per student-centered teaching methods. There was also one point in the research process that can be taken as a recommendation to add more technological and multimedia-supported tools to enhance the horizons of knowledge collection and more authentic statistics that the students can use to visualise content and recognise nonverbal cues (Bridges, 1996).

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