

Marketing Education through PBL: A Case of Social Media Influencer Marketing [†]

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[†] Presented at the 3rd IEEE International Conference on Electronic Communications, Internet of Things and Big Data Conference 2023, Taichung, Taiwan, 14–16 April 2023.

Abstract: Project-based learning (PBL) has been widely implemented in higher education under various disciplines. In this study, sophomore-year marketing students' perception of PBL-based course outcomes was analyzed to explore implications of PBL for better student learning and marketing education practices. Data were collected through students' written narratives at the end of the semester. The results suggest that the PBL methodology significantly increases student motivation and engagement, along with the successful application of learned skills in building social media influencer brands. However, teamwork and participation with group mates were found to be significant challenges for students. Recommendations for future work and practical implications are proposed in this article.

Keywords: PBL; social media; marketing; education

1. Introduction

Recently, project-based learning (PBL) has become popular among various educational institutions, ranging from elementary schools to higher education [1]. Especially within higher education, designing and implementing a learning program based on a student's active participation and understanding has become mainstream [2]. PBL is described as a learning method that allows students to engage in a sustained, collaborative fashion and to focus on a specific project that is often organized around a driving question [3]. PBL not only helps students in building core competencies in subjects but also in developing generic skills such as communication, teamwork, and leadership [4]. Previous research showed that PBL is effective in increasing learning outcomes and cognitive growth in higher education [5]. Significant results were obtained in the vocational training of nursing students [6]. Various applications of the PBL method have been widely observed in engineering education as project-based learning has shown to be highly effective in subjects where practical training and application are essential [7,8].

This study aims to describe and summarize the educational activities performed in the course "Internet and Social Media Marketing" in the 2021 academic year at the Department of Marketing and Logistics Management, Chaoyang University of Technology, Taiwan. The course is for sophomores to introduce various social media platforms, encourage students to learn various marketing methods and strategies on these platforms, and increase the effectiveness of marketing activities. Using the social media influencer model, students are encouraged to establish their social media brands and practice various methods. The activities implemented are (1) building a social media brand, (2) developing a marketing plan, (3) planning a content calendar, (4) creating social media content, and (5) data analysis based on feedback.

The course, Internet and Social Media Marketing, provides students with practical experience in social media marketing. In building a social media brand, a social media



Citation: Demirci, S.; Lee, K.-Y.; Binamak, A.M. Marketing Education through PBL: A Case of Social Media Influencer Marketing. *Eng. Proc.* **2023**, *38*, 59. <https://doi.org/10.3390/engproc2023038059>

Academic Editors: Teen-Hang Meen, Hsin-Hung Lin and Cheng-Fu Yang

Published: 28 June 2023



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influencer or KOL (key opinion leader) is invited for hands-on training in creating and managing social media accounts is the main axis of this course. Due to its nature, practical learning, creative and analytical thinking, and problem-solving are part of this process. For that reason, the PBL methodology is highly suitable in this context.

The motivation behind the project was to deliver a learning environment where pre-defined problems and situations were given. Students were encouraged to come up with solutions, ideas, and strategies. Through PBL methodology, the instructor resumed the role of a facilitator and a consultant in helping and guiding students throughout the semester as they built their social media brands. Thus, students took the role of the self-directed learner, which is a main characteristic of the PBL learning methodology [9]. Based on these goals, this study aimed to answer the following research questions: (1) based on the PBL method, how to develop a course curriculum for internet and social media influencer marketing course, (2) what the learning outcomes of PBL methodology are in marketing education, and (3) whether PBL method has a positive effect on student motivation and participation.

The article is organized as follows. Section 2 covers the current literature on PBL methodology and Section 3 summarizes the PBL methodology and learning activities implemented in this course. The results are presented in Section 4 and discussed in Section 5.

2. Literature Review

Problem-Based Learning

Problem-based learning refers to an instructional methodology where learners build knowledge through various inquiry-based activities, solving problems to accomplish a meaningful real-world result [10,11]. For that reason, it is also called project-based learning because learners go through a process of developing and delivering a project. Such an approach has shown to be valuable in providing hard and soft skills at the same time, which is rather challenging in higher education. Hard skills refer to cognitive knowledge, professional skills, theories, and methods directly related to the subject of the course [1]. On the other hand, soft skills refer to supplementary skills such as problem-solving and teamwork [12]. In a traditional learning environment where teachers are the transmitters of knowledge while students act as the receptors of knowledge, such skills are difficult to build [13].

The main features of PBL include a driving question, focus on deliverable outcomes, participation in educational activities, teamwork among students, using scaffolding techniques, and delivering tangible results [11]. Among these main features, building deliverable results is regarded as the most crucial one [14]. The creation of tangible results requires learners to find solutions, come up with ideas, creative-thinking, and application of knowledge during the process.

3. Materials and Methods

3.1. PBL Course Design

PBL is based on organizing learning activities around a project. In this methodology, there are five main features: (1) projects are central, not supplementary, (2) projects are based on problems or questions, (3) students are involved in constructive exploration, (4) projects are student-driven but teacher supervised, and (5) projects are based on real-life situations not academic.

Concerning these five axes, the PBL methodology also involves certain principles. First, it emphasizes long-term goals. For example, in this study, the course curriculum of the whole semester (i.e., 18 weeks) is allocated to PBL activities. Second, all activities are student-centered. Other than stating the main points, an instructor does not assume the role of lecturer but rather provides students with marginal exploration. Third, all learning activities are carried out in collaboration as a team where students are required to cooperate. Fourth, students are implicitly asked to have soft skills such as time management, communication, leadership, and problem-solving. Such soft skills are not required directly for the activities but are implicitly required to complete the given tasks. Fifth, students are

required to deliver real-life outcomes, such as building a social media brand and creating and publishing social media posts regularly based on a content plan. Finally, projects involved the use of technology-based tools, which is also inevitably the main feature of a course about the internet and social media platforms.

Evaluation of student performance is one of the challenging aspects of PBL methodology as it involves teamwork and difficult to identify the effort of each student [15].

3.2. Curriculum Development

One of the goals of this study is to develop a new course curriculum based on the PBL methodology. The need for a new curriculum is rooted in the fact that PBL requires a teacher and learner to play different roles than in the traditional learning environment [16]. The PBL methodology requires a new approach as a whole, including course activities, course material, feedback mechanism, and evaluation. Thus, it is necessary to develop a new course curriculum.

First, the instructor redesigns the course outline to include new subjects (i.e., trending topics such as TikTok, podcasting, and NFT). As the topic of the course is based on the internet and social media, students are expected to be more interested and engaged. However, it is necessary to provide enough flexibility, opportunities, and space for the learners to have more opportunities to engage with the course subject.

Students enrolled in the course were organized into groups of 6–8 members to build a social media influencer brand from scratch. Each student had a different role and responsibility. Students needed to communicate and share the tasks that require management and leadership skills. Each group was asked to deliver social media content that was monitored and evaluated by the course instructor where the instructor only had to supervise and provide feedback and comments.

4. Results

The course curriculum was composed of 18 weeks of different activities where each group was required to create and develop social media influencer accounts. As a part of marketing education, students were asked to devise a marketing plan. Each group was asked to discuss and devise a business plan and a social media plan with measurable goals and metrics. After the instructor provided foundation knowledge, each group developed their marketing plan by discussing it in groups.

Later, students were asked to discuss in groups to explore what type of social media content could be used in building their brand. They were asked to research current trends and popular influencers in their domain and curate ideas that could be used in their social media marketing plan. In this way, each group formulated their channel's unique marketing mix. This activity was followed by another discussion about building social media content plan. Each group was asked to prepare a content calendar (Figure 1) to experience the important role of social media editor and to practice the role of social media account manager.

As the semester continued, each group established their social media influencer brand. Several groups chose to start YouTube channels (Figure 2), while others preferred Instagram or TikTok. Students had total control over and responsibility for their social media channels. The instructor provided feedback and guidance when needed.

The evaluation method applied in the course included a midterm oral presentation where each group shared the current state of their social media channels. A final written group report was written to create a "media kit", which was an executive summary of the brand commonly used by social media influencers. Other than these assignments, students were asked to fill out a survey to answer questions about their perception of the course, providing cognitive and emotional feedback. Meanwhile, students' participation in group discussions and attendance in class were recorded and monitored carefully by the instructor. Participation and teamwork are essential in the PBL methodology. Thus,

students were frequently reminded and encouraged to come to the classroom on time and join group discussions as much as possible.

27					手搖店(茶湯會、迷克夏、八喜)網友推薦真的好喝?
28	FACEBOOK	(Monday)	11:00 AM	New Blog Post	預告這週主題
29		(Tuesday)	6:00 PM	New Blog Post	推薦主體及店家
30		(Wednesday)Jan	7:00 PM	Clip	影片
31		d(Thursday)	6:30 PM	Video	小花絮
32		Saturday	7:30 PM	Promotion	YOUTUBE正片
33					
34	YOUTUBE	(Monday)	11:00 AM	New Blog Post	預告這週主題
35		(Tuesday)	6:00 PM	New Blog Post	推薦主體及店家
36		(Wednesday)Jan	7:00 PM	Clip	影片
37		d(Thursday)	6:30 PM	Video	小花絮
38		Saturday	7:30 PM	Video	YOUTUBE正片
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40	小紅書	(Monday)	11:00 AM	New Blog Post	預告這週主題
41		(Tuesday)	6:00 PM	New Blog Post	推薦主體及店家
42		(Wednesday)Jan	7:00 PM	Photo	熱門飲料大集合
43		d(Thursday)	6:30 PM	Video	小花絮
44		Saturday	7:30 PM	Video	YOUTUBE正片
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46	INSTAGRAM	(Monday)	11:00 AM	New Blog Post	預告這週主題
47		(Tuesday)	6:00 PM	New Blog Post	推薦主體及店家
48		(Wednesday)Jan	7:00 PM	Clip	影片
49		d(Thursday)	6:30 PM	Video	小花絮
50		Saturday	7:30 PM	Promotion	30秒影片精華

Figure 1. Social media content calendar of a group. Note: The Chinese in the Figure has no effect in understanding the outcome of this learning activity.



Figure 2. YouTube channel of a group. Note: The Chinese in the Figure has no effect in understanding the outcome of this learning activity.

A total number of 56 responses were collected ($n = 56$). A majority of students ($n = 48$) shared that “they believe this course helped them achieve their learn goals”. Similarly, a significant group of students ($n = 37$) shared that “they feel motivated about this course”. An interesting finding of the results was that many students ($n = 22$) expressed that they felt uncomfortable and had negative emotions due to problems in teamwork and cooperation with group mates. Teamwork is an important aspect of PBL and encourages students to work in groups. Based on our analysis of this study, we found that teamwork was the most challenging part of the course.

5. Discussion

PBL has been a popular learning method in higher education teaching different subjects. Most related studies showed the significant benefits of PBL. In this study, we explored how PBL methodology could be used in marketing education, specifically social

media marketing. The results coincided with previous literature, suggesting PBL showed significantly higher motivation in students. Students were highly active and engaged all through the semester. This also evidenced from the attendance and participation being high throughout the semester. An interesting finding of this study is about students' perception of teamwork. As mentioned, many students complained about non-participating group members and were emotionally affected by the challenges brought by the necessity to work in groups. Teamwork is a core axis of the PBL methodology, so it is inevitably embedded in the course design. For many students, such a necessity might be a new experience that they did not have in previous courses. This finding underlines the benefit of the PBL methodology as it enables students to experience teamwork and face challenges to build soft skills.

6. Conclusions

The PBL methodology provides new opportunities in higher education. This study helps to understand how to employ PBL methodology in marketing education. First, our results presented that the course curriculum and group activities included in the course showed satisfactory results. Student participation and grades coincided with this result. Overall learning outcomes were satisfactory as expected, whereas the PBL methodology proved to be encouraging student participation and motivation.

Author Contributions: Conceptualization, S.D. and K.-Y.L.; methodology, S.D.; validation, K.-Y.L. and A.M.B.; formal analysis, S.D.; data curation, A.M.B.; writing—original draft preparation, S.D.; writing—review and editing, S.D. and A.M.B.; supervision, K.-Y.L.; project administration, S.D. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by Chaoyang University of Technology.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Vogler, J.S.; Thompson, P.; Davis, D.W.; Mayfield, B.E.; Finley, P.M.; Yasseri, D. The hard work of soft skills: Augmenting the project-based learning experience with interdisciplinary teamwork. *Instr. Sci.* **2018**, *46*, 457–488. [\[CrossRef\]](#)
2. Prince, M. Does active learning work? A review of the research. *J. Eng. Educ.* **2004**, *93*, 223–231. [\[CrossRef\]](#)
3. Fincher, S.; Knox, D. The Porous Classroom: Professional Practices in the Computing Curriculum. *Computer* **2013**, *46*, 44–51. [\[CrossRef\]](#)
4. Rodríguez, J.; Laverón-Simavilla, A.; del Cura, J.M.; Ezquerro, J.M.; Lapuerta, V.; Cordero-Gracia, M. Project Based Learning experiences in the space engineering education at Technical University of Madrid. *Adv. Space Res.* **2015**, *56*, 1319–1330. [\[CrossRef\]](#)
5. Downing, K. Problem-Based Learning and the Development of Metacognition. *High. Educ.* **2009**, *57*, 609–621. [\[CrossRef\]](#)
6. Tiwari, A.; Lai, P.; So, M.; Yurn, K. Comparison of the Effects of Problem-based Learning and Lecturing on the Development of Students' Critical Thinking. *Med. Educ.* **2006**, *40*, 547–554. [\[CrossRef\]](#) [\[PubMed\]](#)
7. Dym, C.L.; Agogino, A.M.; Eris, O.; Frey, D.D.; Leifer, L.J. Engineering design thinking, teaching and learning. *J. Eng. Educ.* **2005**, *94*, 103–120. [\[CrossRef\]](#)
8. Mills, J.E.; Treagust, D.F. Engineering education—Is problem based or project-based learning the answer? *Australas. J. Eng. Educ.* **2003**, *3*, 2–16.
9. Allen, D.E.; Donham, R.S.; Bernhardt, S.A. Problem-based learning. *New Dir. Teach. Learn.* **2011**, *128*, 21–29. [\[CrossRef\]](#)
10. Brundiers, K.; Wiek, A. Do we teach what we preach? An international comparison of problem- and project-based learning courses in sustainability. *Sustainability* **2013**, *5*, 1725–1746. [\[CrossRef\]](#)
11. Krajcik, J.S.; Shin, N. Project-based learning. In *The Cambridge Handbook of the Learning Sciences*, 2nd ed.; Sawyer, R.K., Ed.; Cambridge University Press: Cambridge, UK, 2014.
12. Casner-Lotto, J.; Barrington, L. *Are They really Ready to Work? Employers' Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce*; Partnership for 21st Century Skills; 1 Massachusetts Avenue NW Suite 700E: Washington, DC, USA, 2006.
13. Alorda, B.; Suenaga, K.; Pons, P. Design and evaluation of a microprocessor course combining three cooperative methods: SDLA, PBL and CnBL. *Comput. Educ.* **2011**, *57*, 1876–1884. [\[CrossRef\]](#)

14. Helle, L.; Tynjälä, P.; Olkinuora, E. Project-based learning in post-secondary education—Theory, practice and rubber sling shots. *High. Educ.* **2006**, *51*, 287–314. [[CrossRef](#)]
15. Dutson, A.J.; Todd, R.H.; Magleby, S.P.; Sorensen, C.D. A review of literature on teaching engineering design through project-oriented capstone courses. *J. Eng. Educ.* **1997**, *86*, 17–27. [[CrossRef](#)]
16. Saunders-Smiths, G.N.; de Graaff, E. The development of integrated professional skills in AE through problem-based learning in design projects. In Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition, Nashville, TN, USA, 22–25 June 2003.

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