

The Use of Social Media as a Learning Environment of Vocational Education

Mafrur Udhif Nofaizzi, Andri Setiawan, Faathir
State University of Malang, Malang, Indonesia

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Abstract: Nowadays, learning is not only taken in the classroom but also taking in the virtual class. Social interaction between learner and instructor is mostly brought on the social media. The use of social media as a learning environment in vocational education can support the learner for learning everywhere. This paper addresses this question: how the social media is used? Which social media is widely used? What the learning objectives will be achieved by using social media?. The systematic review methodology was carried out in this study. The literature was collected from the international journal database such as ERIC and Scimedirect. Based on the analysis, the findings are presented into three categories namely, learning activities, type of social media, and learning outcome of the learner. The interaction activity and assessment were commonly used in social media. Facebook became a social media platform that is widely used. The social media is mostly used to enhance the engagement of learners in the learning process.

1 INTRODUCTION

The integration of social media into the learning process has been an interesting topic to investigate deeply. Social media is a technology that can overcome learning difficulties outside the classroom. There are three aspects to note in utilizing social media in the learning process, (1) Technological literacy i.e., the individual's ability in operating technology, (2) Information literacy i.e., the ability to retrieve, access, and utilize the information, (3) Critical Literacy i.e., the ability in assessing and evaluating media and information (Woonsun and Jaewoo, 2014).

The use of social media as a communication tool outside the classroom can provide the learner opportunity to solve the problem by means of collaboration. (Nookhong and Wannapiroon, 2015) stated that social media can be used as a supporting tool for communication between learner and instructor, such as, collecting data, sharing information, and exchanging thoughts. The interaction built through social media is crucial in providing the opportunity to share ideas, ask something, and collaborate in solving learning problems (Won *et al.*, 2015). Learning activities built

using social media can improve the ability to collaborate.

The benefit of integrating social media into learning i.e., the learner not only read the content but can also create content based on the information that has been obtained, the so-called User-Generated Content (Konert, 2014). Social media provides the opportunity for learners to select and make the appropriate content to meet the needs of their learning. Besides the content, the learner can also choose and assess the validity of the information contained in social media. (Alabdulkareem, 2015) stated that social media allows the learner to create and test the knowledge acquired.

Vocational education learning system is specially designed to meet the needs of the world of industry and the business. Vocational education is regarded as a key factor in improving and maintaining the global competitiveness of national industries (Rauner and Maclean, 2009). The implications of these goals against vocational education curriculum is to apply a dual system of education. The dual education system is a combination of theory learned in the classroom and skills in the workplace.

The purpose of this study is to examine the use of social media on vocational education through systematic review. Thus, this study points out the following questions, (1) How are social media used

as learning environment in vocational education (2) Which is the most commonly used social media as a learning environment in vocational education? (3) What is the purpose of using social media in vocational education?.

2 METHOD

This article presents the results of a study about the use of social media on the vocational education. The method used was a systematic review. A systematic review is a study of the question formulated clearly that uses systematic and explicit methods to identify, select and critically appraise relevant research, and to collect and analyse data from the studies included in the review (Moher *et al.*, 2009). There are four stages to be performed in the study of systematic review, namely, (1) Identification (2) Screening (3) Eligibility (4) Included. The source of the study of literature is searched using the database Journal of ERIC and Sciedirect.

Use two basic keywords that will be used as reference in the keyword search literary sources, namely (1) social media (2) vocational education. to expand the search, two of these keywords are followed by the following key words are "Social Media", "Social Network", "Web 2.0", "Facebook", "Youtube", "Edmodo", "Blog". As for the keyword "Vocational Education", "Vocational Training School", "Education", "Technical Education". The combined keywords from both domains are also used in the search. So it brings the right articles with topics that will be covered in the study. Articles that are collected are limited in 2010 to 2018. The articles will be selected into the study of systematic review will be limited to the field of education. Searching articles focus on learning activities using social media, social media is applied to the students in school, as well as the challenges of using social media in learning.

3 RESULT AND DISCUSSION

Figure 1 shows the four stages in the process of systematic review, i.e., (1) Identification (2) Screening (3) Eligibility (4) Included. The Identification stage obtained 312 articles from two database journals using the keywords "social media" and "vocational education." Then, the articles that correspond to the topic were being selected, 6 articles were removed, only 306 articles remain. On screening stage, the activity was screening the full-text article. 171 articles were removed because of not providing

the full-text article, 135 articles remain. The full-text article will be examined based on the required variable as a process of systematic review. On Eligibility stage, the activity was examining the paper thoroughly begins with examining title and abstract. If correspond topic found, then proceed to review the entire paper. The result found that 126 articles were removed. In the end, on the included stage there are only 9 articles correspond to variable needed for the systematic review.

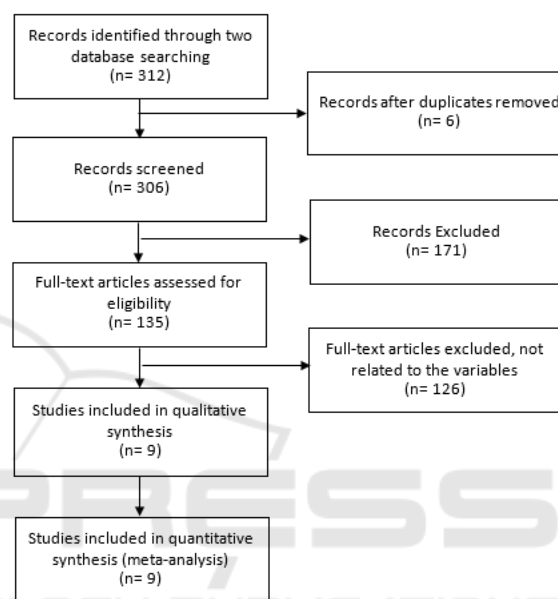


Figure 1: Diagram flow PRISMA

3.1 Usage of Social Media as a Learning Environment in Vocational Education

Learning activities on social media in vocational education was varied. 55.55% utilize social media as an instructional tool between users (Hanley *et al.*, 2013; St. Onge and Hoehn, 2015). Besides, it is also utilized for creating learning content (Schwertel *et al.*, 2014), sharing learning experience (Hanley *et al.*, 2013), delivering learning resources (Callan and Johnston, 2017), and evaluating (Oishi, Seki and Kondo, 2017).

Table 1: Analysis of learning activity on social media.

Activity on social media	Percentage
Interaction	55.55%
Create content	11.11%
Sharing learning experience	55.55%
Delivering learning materials	22.22%
Evaluation	44.44%

Table 2: Analysis of social media platforms used.

Activity on social media	Percentage
Facebook	77.78%
Blog	33.33%
Youtube	22.22%
Google+	22.22%
Wiki	11.11%
Instagram	11.11%
Twitter	11.11%

3.2 Social Media Platforms Used

Based on the review, social media platform that is widely used is Facebook by 77.78% (Hanley *et al.*, 2013; Schwertel *et al.*, 2014; St. Onge and Hoehn, 2015; Mardiana, 2016; Callan and Johnston, 2017; Oishi, Seki and Kondo, 2017; Ranginwala and Towbin, 2018), followed by Blog, YouTube, Google+, wiki, Google Hangout, Instagram, and Twitter. In terms of the learning process, (Hanley *et al.*, 2013) use Facebook only, and (Schwertel *et al.*, 2014) uses many social media, such as Facebook, Blog, and Wiki simultaneously, but with a different purpose. The results of the study of social media platforms used as learning environments in vocational education can be seen in Table 2.

3.3 Purposes of Social Media Used

Social media is used for many purposes. Most of the reviewed article mention that the purpose is to improve the learner in learning (Hanley *et al.*, 2013; Mardiana, 2016; Callan and Johnston, 2017). Some mention that the purpose is to improve critical thinking skills (Huang *et al.*, 2017), and to improve technical skills in the workplace. other studies mention the use of social media for increasing collaboration among learners. This proven effective based on findings (Hanley *et al.*, 2013). In addition to social media is also effective as a complementary learning. (Moghavvemi *et al.*, 2018) using youtube as a source of information to enhance the understanding of the learner when outside the classroom.

Table 3: Overview of the articles.

Author	Year	Social Media Platforms	Usage of Social Media	Subject	Evaluation tool	Outcomes	Country
Schwertel., et al.	2011	Blog, Facebook, and Wiki	Social media to organize, evaluate, interact, and create information	Vocational students from IT sector	-	Web-based training modules for learner, social navigator dan online course for teacher and trainers of vocational IT education	Germany
Hanley., et al.	2013	Facebook	Facebook as communication tools and deliver the learning experience	Students from the Nitec in info-communication technology course	Survey	Engagement student and collaborative learning	Singapore
Onge and Hoehn	2015	Facebook and Google+	Delivery resources course, communication with students regarding assignments and due dates.	Students Pharmacy education, age 18-55 years	Questionnaire survey	Facebook and Google + as distance learning platforms for Pharmacy learners.	USA
Huang., et al.	2016	Google+, Hangouts, and Blogger	Use of Google+ for interaction and sharing project,	Technical and vocational	Interview survey to collect	the use of PBCL (Project-based cloud learning) model which	Taiwan

			Hangouts for interaction, both synchronous and non-synchronous discussion, and Blog as the assessment tool on learners' performance.	University students, age 20-22 years	qualitative data and questionnaire	integrated with Google Services to improve learners' critical thinking.	
Mardiana	2016	Facebook	Teaching and learning process	Students information technology, age 18-35 years and lectures, age 25-65 years	Interview and questionnaire	Facebook to engage students and lecturers	Indonesia
Callan., et al.	2017	Youtube And Facebook	Deliver materials and assessment	Student, teacher, and employers	Interview and Questioner	Common use of social media, the impact of engagement student and employer, and evaluation process	Australia
Oishi.,et al.	2017	Facebook	Facebook as an e-portfolio on CSP (Career Support Program) to promote learning process and assess students' activities interactively and authentically	Fourth-years students	Questionnaire survey	CSP Facebook to help learner getting particular skills or technical skill in the workplace	Japan
Moghavvemi., et al.	2017	Youtube	Youtube as a complementary tool for teaching	Students in the Faculty of Business and Accountancy	Questionnaire	YouTube as a complementary for blended learning	Malaysia
Ranginwala and Towbin	2017	Instagram, Twitter, Facebook, Blog	Twitter and Instagram used for resource sharing, communication, and assessment for faculty members, fellows, and staffs. Facebook used for patients' engagement, families and employees (i.e., events, announcements and new facilities). The blog used for educational purpose to patients and families.	Learners, educator, patient, employee	-	Social media used for employee engagement, radiology, and medical education community, and social media channels.	USA

3.4 How to Use Social Media as a Learning Environment in Vocational Education

Based on the results of the study of literature found that the use of social media in learning education Commissioner is varied. Social media is mostly used for interaction. (Hanley *et al.*, 2013) mentions that the interaction through social media occurs in three forms i.e., interactions between learners, interaction of learner with content, and the interaction of learner

with instructor. Thus, it shows that the use of social media can be used as a tool of learning. The advantages of the use of social media are because it costs cheaper than web-based training. (St. Onge and Hoehn, 2015) mention that social media can also be used to discuss and collaborate in the search for learning resources on the internet. Interactions between users in real time can provide input directly about the credibility of the learning resources that are available to you through the internet. In addition as a space of social media, interaction can also be used as an assessment. (Oishi, Seki and Kondo, 2017) using social media for authentic assessment. Portfolio is

used as a benchmark in assessing learning activities through social media like, comment, post-learning experience into techniques to collect data that will be assessed.

3.5 Commonly Used Social Media Platform

The most commonly used social media platform is Facebook. A more complex feature and cost factor are the reason to use Facebook instead of web-based platform (Mardiana, 2016). There are 3 categories of Facebook usage in learning, (1) Facebook is an effective medium for communication, (2) Facebook can enhance the learning experience of the learners, (3) Learners perceive Facebook as learning medium (Hanley *et al.*, 2013). Besides, there is Blog that allows sharing information with a bigger character limit than Facebook. (Huang *et al.*, 2017) utilize Blog in many ways, such as, presentation and summarizing the learning material. Blog has the advantage as an easily accessed mass media through search engines.

3.6 The Purpose of Using Social Media

The main purpose of social media in learning is to attract the learners in the learning process. The research by (Moghavvemi *et al.*, 2018) showed that 31% of learners spent more than an hour per day using YouTube for learning and entertaining. Learners' interest becomes a key success factor of the learning process. Another purpose is to improve critical thinking skills through direct interaction in social media. (Oishi, Seki and Kondo, 2017) use social media as tool for authentic assessment based on the investigation from comments and posts.

4 CONCLUSION

The main purpose of this study is to examine the use of social media as learning environment in vocational education. The integration of social media into learning process has been a lot done by many educational institutions. The utilization of social media in vocational education gives a significant positive impact. Thus, social media is a proper tool to solve learners' learning difficulties.

The result of the study is divided into 3, the way to use social media in learning, the most widely used social media platform, and the purpose to achieve in utilizing social media. The result is then described and presented in the form of data analysis.

The integration of social media into learning in vocational education shows a positive impact. Ease of social media access and feature to encourage the learners in online learning environment considered as the key factors to attract learners in learning. The utilization of social media for assessment considered as the proper way because of its advantage in recording the learning activities authentically. Most of the learners are being too immersed in using the social media that considered to be beneficial for instructor in assessing the learning activity outside the classroom. The selection of social media platform should be adjusted to the needs in learning because each social media has different purposes and features. Facebook has been the most commonly used social media platform because it has more services than others do. The main purpose of instructor in utilizing social media is to increase the interest of the learners in the learning process.

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