Blending Learning:

Self Reflection of Accounting Education in the Indonesian Vocational Higher Education

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Abstract—The aims of this article are: (1) to explore how is blending learning from the perspective of accounting education in the Indonesian VHE based on the Community of Inquiry (CoI) concept; (2) to examine the weakness and the advantage of blending learning at accounting education in the VHE. The research method is qualitative research by combining the literature study and critical. The unit analysis of this study is accounting education in the VHE. The results show that in the: (1) cognitive presence, students are accustomed to exploring problems and problem-solving in the field of accounting by using various sources of information and being able to do analysis and decision making, where this requires the ability to think critically, think outside the box but still be able to receive input from others; (2) social presence, it is hoped that students will maintain relationships or communication between one student and another student, between students and their lecturers to carry out their functions as humans and social beings; (3) teacher presence, it functions manage the process of accounting learning. It is suggested for the next research to explore the implications of this concept on accounting education in Indonesian VHE.

Keywords: accounting education, vocational higher education, blending learning, digital era

I. INTRODUCTION

Education and technology are complementary matters. Sometimes education is developed from the results of technology development, and vice versa technology can also be developed from education. Technology can be understood as a practical application of knowledge within a certain scope (merriam-webster.com). One technology that is widely discussed today is information technology. Almost all activities and processes of human life are influenced by information technology (IT), as well as information technology has also influenced and maybe even changed the face of the company in carrying out its operations. Even the relationship between individuals, companies and public institutions is connected by many products or applications that result from the development of information technology.

With the rapid development of IT, the world is no longer limited by space and time, every individual is required to have the skills and knowledge of IT in order to be able to integrate quickly and accurately to their work in a professional manner without reducing social care. Likewise, in the field of education, inevitably all education practitioners must use IT. Both in the learning process and in terms of administration, all must use IT.

The rapid development of IT also impacts education and raises significant challenges in the teaching process. Educational institutions realize the need and importance of merging IT in all professional fields and adapt it into curriculum and teaching methods, thus education does not lag behind the IT advance.

Many ways are used in utilizing technological advances in the learning process, one of which is blending learning. Some claim that blending learning is a combination of classroom and online teaching that takes place in different places and at different times, while other opinions suggest that blending learning is a process of combining classroom and online teaching that takes place in the same location and at the same time. Blending learning also can be understood as a learning process that combines traditional methods (face to face) with online learning methods [1]. Specifically, the Sloan Consortium argues that blending learning is a combination of online teaching and face-to-face teaching, with the composition of material delivered online as much as 30% to 79% [2]. Three elements must be present in blending learning: (a) having face-to-face meeting several times with the instructor, (b) the use of several instructions delivered electronically, and (c) a design that combines face-to-face and online instruction to achieve the learning objectives established [3]. A comprehensive conceptual framework on the effectiveness of online learning in higher education created by Garrison, Anderson, and Archer is the Community of Inquiry (CoI), the most often cited model for online learning [4], because CoI provides quality guidance for online learning and blending learning [5,6].

CoI undertakes that learning occurs within the community through the interaction of three essential foundations: cognitive presence, social presence, and teaching presence [7]. The most basic element to success in higher education is a cognitive presence, it is a fundamental element in critical thinking, a process and outcome that is often offered as the apparent goal of all higher education. The development of cognitive presence in online-based education can be done in various ways, such as: modeling, online discussion; using rubric assessments, designing cognitive behaviors, more opportunities in conducting tests and feedback on the material being taught.

The second core element of CoI, social presence, shows as the ability of participants in the investigation community to project their personal characteristics into society, they should be able to present themselves to other participants as real people. This element is a supporter of cognitive presence, which indirectly invites the learning community to think critically and contribute directly to the success of the educational experience. The third element, teaching presence. Teaching presence is understood as an effort to realize results using design, facilitation, and direction of cognitive and social processes [8]. Teachers or lecturers have important roles and responsibilities in the learning process. A teacher must make continuous and authentic communication between teachers and students. In addition, the teacher must be able to improve discourse, improve the quality of learning, and improve the reflective abilities of students, and teach to use various assumptions and concepts in thinking. The teaching presence has two general functions, which can be carried out by one participant in the CoI. The primary function is the design of educational experiences in the form of a selection of learning materials, organizing, and main presentations of course content, as well as the design and development of learning activities and assessments. The next function, facilitation, is to divide responsibilities between the teacher and some or all other participants or students. In the context of blending learning, the CoI will be combined with face to face learning with the comparison of material submitted online as much as 30% to 79%.

Then, how is the application of blending learning from the perspective of accounting education in the Indonesian Vocational Higher Education (VHE)? The Act of Indonesia's Republic year 2003 concerning the national education system states that vocational education is higher education that is required to prepare students to have jobs with certain applied skills, maximally equivalent to undergraduate programs [9]. The VHE policy in Indonesia is directed by kemenristekdikti (i) to support national economic development programs, (ii) to create graduates who meet labor market demands, and (iii) to contribute to national economic growth by meeting industry demand for quality labor.

In 1986, the Indonesian government expanded the education sector in VHE in the field of commerce, including, in this case, the field of accounting. The addition of majors in the field of accounting is to meet the needs of an accounting skilled workforce that are increasing. VHE, including in this case the Polytechnic, is an institution with an education system that emphasizes practice more than theory, the composition of theory and practice ranges from 40%: 60%. Vocational education is an educational institution that develops and applies knowledge and skills to meet the needs of the community for secondary level employment from time to time [10]. The education system uses the package system combined with the semester credit unit system, followed by the number of practical hours more than the theory.

Accounting education in VHE places more emphasis on practice compared to theory, that's why that accounting students at VHE are better trained in practicing accounting compared to students from universities. However, accounting education at VHE must also remain open to rapid changes in the IT field. This rapid change in IT must be captured and embedded in the accounting education process at VHE, for all the students, teachers, learning materials and the learning process. Why blending learning is important in accounting education at VHE? Because accounting learning at VHE requires students to apply abstract knowledge gained from theory and practice it into real conditions as in the work world. This can be achieved, among others by integrating work-place activities into the design of education by using information technology advancements.

This article offers a conceptual framework for the application of blending learning in accounting education at VHE by identifying important elements in the accounting education and those related to the blending learning process, especially from the CoI perspective. Briefly the linkages between the blending learning and accounting education in VHE that more concern into practical than theoretical aspects that will be explained in this article. Dewey stated that practical education methods are also needed for the educational experience, and practical education is constructed on experience, result through practice, and creates knowledge and problem solving [7]. The paper begins by discussing what is meant by blending learning and why is needed in the accounting education in VHE, following by the explanation of critical reflection as a research method. Next, will explain how is blending learning issues related to accounting education and vocational higher education, what is the benefit and weakness is the correlation with CoI framework, since there is a gap occurs in the literature discovering the alterations of online and blended learning from a CoI viewpoint [11].

II. METHODS

This study using qualitative research as a research method. Qualitative research is research that intends to understand phenomena about what is experienced by research subjects such as behavior, perception, motivation, action, etc. holistically, and thorough descriptions in the form of words and language, in a special natural context and by utilizing various natural methods [12]. The unit of analysis or units observed in this study is accounting education in Vocational Higher Education. Data collection methods used in this study are library research. In library research, the basic thinking, theories and results of research related to blending learning are explored, especially in the fields of accounting and accounting education in the Vocational Higher Education Area. Because of the limitations of accounting research and accounting education research, especially about blending learning, in the Vocational Higher Education sector, theories, practices and research results in accounting and accounting education are generally used as insights to develop this research.

In this research, the data is then processed using the critical reflection method. Sandercock argues that critical reflection is thoughtful or critical thinking about something, and as one's attention on ideas, problems, dilemmas or topics [13]. According to Sandercock, conventionally in critical reflection, there are four stages: identifying; analyze; connect, and implementing [13]. Following Sandercock, in this research the four phases in critical reflection used to: (1) explore blending learning issues related to accounting education and vocational

higher education; (2) analyzing the role of blending learning and analyzing accounting education issues in VHE related to blending learning; (3) linking blending learning issues with the results of the analysis in the second stage with CoI concept; (4) use the results of steps one, two and three as the basis for making the concept of blending learning in accounting education at VHE. Through a critical reflection process improvement will be made in accounting education at VHE especially in the use of blending learning in the learning process.

III. RESULTS

Accounting education, especially in Vocational Higher Education or polytechnics, focuses on the premise that learning experiences or practices are valuable, without abandoning reflective thinking, socializing with the environment, and getting directed and structured education.

In VHE, accounting education could be understood that the need for collaboration between theory and practice is highly needed. The practices or experiences in accounting fields can be reached after understanding the theories of accounting. Along with the passage of time and rapid technological development, then accounting education must also follow the changing technology, both in theories and practices. In this way, blending learning is able to produce learning conditions that are beneficial for students, by using multimedia and web technology thus the students can increase the critical thinking skills, contextual learning and communication skills.

In the business reality, it cannot be denied that the accounting profession is also required to be able to use IT, this can be seen from the number of job vacancies that require the ability to operate certain IT applications in the accounting field. Unfortunately, these requirements sometimes cannot be fulfilled by accounting graduates. This is a challenge for accounting education at VHE, how to integrate IT into accounting education.

The usage of IT in accounting education can be seen as the custom of blending learning that combining traditional learning, face to face learning and online learning. The online learning concept use in this is article is CoI framework, which consists of three elements: social presence, cognitive presence, and teaching presence [7], subsequently the collaboration is an important aspect of cognitive development because cognition cannot be separated from social contexts [7]. While in Dewey's view, there are two sides to the educational process, namely psychological and sociological, which cannot be subordinated to one another, reducing one of them will result in unkindness. In Dewey's perspective, education is considered as a reconstruction of collaborative experiences [7].

Collaborative experience in accounting education in VHE could be said as the collaborative communication process for the purpose of building meaningful and useful knowledge and practice in the field of accounting. The challenge facing accounting education today is how to create effective blending learning so that theory and practice can be done using IT, such as whether virtual accounting is appropriate for accounting education, what materials should be provided with online learning and what materials appropriate with traditional

learning or face to face to facilitate the understanding of accounting materials and theories, virtual teaching factory for accounting practices, and inquiry communities in a virtual accounting environment such as the use of technology for study groups. With the variety of learning methods, it is hoped that it will be able to improve understanding of accounting better, and the sensation of online learning can increase students' curiosity about accounting, then understand it and serve as a basis for practicing accounting.

The first component of CoI is cognitive presence. Cognitive presence shows the level to which online and blending learners can construct and validate meaning through a process of reflection, discourse, analysis, and synthesis [7]. The concept of cognitive presence is derived from Dewey's reflective thinking, where reflective or critical thinking will develop the meaning of experience and become the foremost objective of education.

The Triggers of cognitive presence in accounting education at VHE include the insecurity of accounting concepts, accounting theory and how to practice these concepts and theories in the real world. This must be supported by high curiosity and a willingness to learn something that is not yet understood. If the accounting learning methods are fun and interesting for students, it will motivate students to learn it, because something that is not interesting makes them ignore it. Therefore, a combination of the use of traditional learning methods, face-to-face and online is very necessary for the accounting learning process that it is not monotonous and makes students more interested in the learning process. For this reason, students must be accustomed to exploring accounting problem solving by using various sources of information, conducting hearings and discussions to solve the problems faced. This requires the ability to think critically, not linearly and be able to listen to other people's opinions well and make a compilation of thoughts from a problem.

Social presence is described as an ongoing process of maintaining relationships with the community and engaging in meaningful and trustworthy communication [14]. Initially social presence has a function as to support cognitive presence based on components of emotional expression, open communication, and group cohesion, which are manifested in the form of emotional expression such as interpersonal communication, open communication that is reciprocal and polite communication, and group cohesion to create and maintain a community with a feeling of belonging [7].

At accounting education, social presence is also important. The research results of several researchers indicate that social integration is important for college students [9,15], students who have high social and academic integration are able to survive until they graduate [15]. In accounting education, a social presence can be realized in the form of effective relationships between accounting students. The social presence or emotional expressions can be realized in the form of interpersonal communication, open communication that is reciprocal and polite communication, and group cohesion in creating and maintaining a sense of community through a feeling of belonging [7]. This social presence can also be

explained as identification, communication, and community development and student relations [16].

Social presence in accounting education is expected to create a personal relationship between one student and other students with a view of the relationship that can be maintained even though the learning process is done through an online process. Thus, the purpose of education does not only include educating students, but also maintaining social relations between one student and another student, between students and their lecturers, and students and the surrounding community. Not just the act of downloading information about accounting learning, but also needs to understand the differences in actual relationships. In communication that can be seen in the tone of speech, the quality of communication; expression, skepticism, challenges faced, how to respect, make an interesting communication, respond to something, how to respect others and support others [7]. The ease of information systems makes time and space unlimited so that communication and knowledge can be disseminated throughout the world quickly and accurately. Within seconds all the information we need we can get. The use of learning in the accounting education with this accounting e-learning method can reduce the meeting time between students and lecturers, thus students can do their assignments anywhere they like without having to meet with lecturers and colleagues, without the need to come to campus. But as social beings, humans will still need to interact with other humans. Social interaction will train students on how to interact in the community and the workplace, and how to work together in teamwork. The presence of e-learning is not expected to reduce the social relations of students, but can improve the social function of students as humans, and still maintain its position as a social creature that must interact with other human beings and their society. By carrying out its function as a human being, it is expected that accounting students have the ability to interact socially with others, and use accounting information to guide thoughts and behavior in acting and maintain better relationships with other humans in the generally accepted ethical corridor.

The next element of CoI is teaching presence. Teaching presence is an important component in CoI, teachers have the prime and most central person for student learning since teachers are a resource of online instructional orchestration [7,16,17]. In accounting education, teaching presence begins with creating instructional designs and organizing accounting materials, broadening students' discourse about accounting, and directing the process of accounting learning. Before the lecture begins, it must be agreed what are the design and the organization that will be used, the material should be compiled, who are the teachers, and how to prepare, interact, and evaluate the learning methods. There also needs to be an agreement on what learning methods will be used whether traditional or blending learning methods, which material will be selected, which materials will be using the traditional methods and which materials will use blending learning. These activities will involve the instructional and organizational design include developing curriculum, evaluation methods, and providing guidance on the effective use of media. Teachers are deliberated as the largest factor and most important influence on student learning.

In the context of accounting education, the Teaching Presence is influenced by the design and organizational structure in the institution where the instructor teaches. the learner must communicate. The instructor clearly, explains the topic of accounting, describes the learning objectives of the accounting material and gives clear instructions on how to participate in learning activities, a time frame in learning. Accounting teachers must also assist in guiding the class to understand the topic in a way that is easily understood. Teachers must also be able to develop a sense of community among fellow students.

The role of the teachers as a facilitator and motivator is to facilitate or facilitate students in learning and the teacher must also be able to arouse students' enthusiasm. In this digital era, the role of lecturers in accounting education includes: 1) understanding various types of media and learning resources and the functions of each of these media in accounting learning. In accounting learning, understanding the function of the media is very necessary because some unique subjects require variations in learning. Besides, it is not necessarily a suitable media to be used to teach all courses, because each media has different characteristics. Therefore, it is necessary to pay particular attention to and differentiation of the accounting learning methods for each course, since the behavior of each course is different, also influenced by whether it explains a theory or practice; 2) The lecturers need to have skills in designing media. The ability to design media is one of the competencies that must be possessed by a lecturer, with media design that is considered suitable will facilitate the learning process so that learning objectives will be achieved optimally; 3) The lecturers are expected to be able to manage various types of media and be able to utilize various learning resources. For this reason, lecturers are asked to be able to keep abreast of the latest information technology. Having a variety of knowledge about the development of information technology allows each teacher to use a variety of media choices that are considered suitable in teaching accounting courses; 4) As a facilitator lecturers are expected to have the ability to communicate and interact with students. The ability to communicate effectively can make it easier for students to grasp the message to be conveyed by lecturers so that they can increase their motivation to learn and increase their understanding of accounting materials that are taught and practiced.

In addition, this study also explored the advantages and disadvantages of blending learning in accounting education at VHE, with the aim of optimizing the potential use of blending learning in accounting learning. The advantages of online learning in accounting compared to traditional education are: (1) Giving freedom from the limitations of space and time for accounting students to improve accounting students' abilities in accounting globally. (2) It can diversify accounting learning and meet different student learning characteristics creating opportunities for social networking with fellow accounting students from all over the world. (3) It providing comfort because it can manage accounting learning independently. (4) It can do accounting learning differences and meet different student learning characteristics. (5) The complementary of accounting learning conducted online (independent) and

conventional, which has advantages that can complement each other. (6) The accounting learning process is more effective and efficient since accounting theories can be provided online and traditional accounting practices remain traditionally without leaving progress technology. (7) Access to accounting learning material is more easily obtained by utilizing technology and the internet of things. (8) The process of accounting teaching and learning is not only face-to-face but increases learning time by utilizing cyberspace technology. (9) Communication applications have facilitated and accelerated the process of communication between accounting teachers and accounting students. (10) The discussion activities on accounting material can take place online or offline adjusted to the time and place needed even outside the predetermined lesson hours. (11) Accounting teachers can ask accounting students to review accounting material before learning. (12) Accounting teaching materials can be completed in accordance with the specified time target because it is more flexible.

The weakness of blending learning in the accounting education in VHE; (1) Media, applications or software in the field of accounting that is needed is very diverse, making it difficult to apply if the facilities and infrastructure are not supportive. (2) Unequal facilities owned by students in the field of accounting, such as computers and internet access. Even though in blended learning adequate internet access is needed, if the network is inadequate it will be difficult for participants to take part in independent learning online. (3) Lack of knowledge of lecturers and students on the use of technology, they tend not to care and the indifference to technological advancements because they feel that their lives are already comfortable. (4) Teachers need to have skills in organizing e-learning in accounting. (5) Teachers need to prepare time to develop and manage e-learning system learning in the field of accounting, including developing accounting-based material nowadays. (6) Prepare assessments, conduct assessments, and answer or give statements at the forum submitted by students. (7) Teachers need to prepare a digital reference in the field of accounting as a student reference and digital reference integrated with face-to-face learning. (8) Learning strategies are needed by instructors to maximize the potential of blended learning in accounting.

Overall the use of blending learning in accounting education at VHE is very helpful in the learning process. However, because accounting education in VHE applies more practice than theory, it is necessary to develop further practice-based accounting education using blending learning methods.

IV. CONCLUSION

The rapid development of technology makes learning issues by using blending learning increases, both from the perspective of students and lecturers. The importance of variations in the delivery of accounting materials to improve students' understanding of accounting theory and practice makes the driving factor of the use of blending learning methods. By using the concept of Community of Inquiry (CoI), it is

concluded that in accounting education in Vocational Higher Education must be developed by considering 3 factors: cognitive presence, social presence, and teacher presence. In the future, resources need to be prepared that can operate the IT used and of course substantial financial support is needed to be able to have information technology and information systems that are integrated in an accounting education, especially practice-based, because the practice in accounting education in Vocational Higher Education is a characteristic that must be maintained and developed.

REFERENCES

[1] G. Nowell, "Student Course Evaluations In Traditional And Blended Courses: A Case Study," Am J Bus Educ, vol 4, pp. 13–8, 2011.

[2] I.E. Allen and J. Seaman, Staying the Course. United States: Sloan Consortium; 2008.

[3] R. Rose and J. Ray, "Encapsulated presentation: A new paradigm of blended learning," Educ Forum, vol. 75, pp. 228–43, 2011.

[4] W. Boston, S.R. Díaz, A.M. Gibson, P. Ice, J. Richardson and K. Swan, "An exploration of the relationship between indicators of the community of inquiry framework and retention in online programs," J Asynchronous Learn Netw, vol. 14, pp. 3–19, 2010.

[5] Z. Akyol and D.R. Garrison, "Understanding cognitive presence in an online and blended community of inquiry: Assessing outcomes and processes for deep approaches to learning," Br J Educ Technol, vol. 42, pp. 233–50, 2011.

[6] E. Szeto, "Community of Inquiry as an instructional approach: What effects of teaching, social and cognitive presences are there in blended synchronous learning and teaching?" Comput Educ, vol. 81, pp. 191–201, 2015.

[7] Garrison, Anderson and Archer, "Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education," Internet High Educ, vol. 2, no. 2-3, pp. 87–105. 2000.

[8] T. Anderson, L. Rourke, D.R. Garrison and W. "Archer, Assessing Teaching Presence in A Computer Conferencing Context" vol. 5, pp. 1–17, 2001.

[9] W.G. Spady, "Dropouts from higher education: An interdisciplinary review and synthesis," Interchange, vol. 1, pp. 64–85, 1970.

[10] G. Moodie, "From Vocational to Higher Education," 2008.

[11] D.R. Garrison, T. Anderson and W. Archer, "The first decade of the community of inquiry framework: A retrospective," Internet High Educ vol. 13, pp. 5–9, 2010.

[12] L.J. Moleong, Metodologi Penelitian Kualitatif (Edisi Revisi). Rosda, 2017.

[13] J. Clarke, P. Turner and J.L. Clarke, "Critical Reflection in IS Research Methodology : considerations for research design selection and deployment," 2002.

[14] K. Kozan and J.C. Richardson, "Interrelationships between and among social, teaching, and cognitive presence," Internet High Educ, vol. 21, pp. 68–73, 2014.

[15] V. Tinto, "Dropout from Higher Education: A Theoretical Synthesis of Recent Research," Rev Educ Res, vol. 45, pp. 89–125, 1975.

[16] P. Shea and T. Bidjerano, "Learning presence: Towards a theory of self-efficacy, self-regulation, and the development of a communities of inquiry in online and blended learning environments," Comput Educ, vol. 55, pp. 1721–31, 2010.

[17] N. Maynes and B.E. Hatt, "Teacher Hiring: Exploring the Dilemmas and the Solutions," J Stud Educ, vol. 5, no. 56, 2015.