

Experiential Education for Meaningful Learning: A Literature Study

Dian Aswita^{*}

¹Biology Education, Universitas Serambi Mekkah, Indonesia

^{*}Corresponding Author: aswita_dian@yahoo.com

Abstract

To achieve meaningfulness in learning, learners are encouraged to take an active role in finding knowledge and building up their own experiences. Applying student-oriented learning models or involving students actively in the learning process is one approach that can be used by teachers. Experiential education is an educational philosophy that describes the educational process that provides direct experience for educators, learners and environment. This paper aims to introduce and discuss the experiential education with, two models of learning based on experiential education, they are experiential learning and service learning.

Keywords: *experiential education, experiential learning, service learning, meaningful learning*

1. Introduction

Learning activities which have not been able to actualize learners' potentials, to make them integrative and responsible always become issues arising in educational practice. The current education practice that has been implemented is difficult to understand toward learners' interest; hence, regarding its goal of education practice, this merely leads to the educational process dominantly oriented only to cognitive improvement. In fact, according to Ki Hadjar Dewantara (1962), education is basically the process of raising students to grow and develop self-potential that includes cognition, affection, psycho-motor, conation, social and spiritual life. Komar (2006) also mentions that the goal of education is to make people free in terms of: (a) the direction for the educational process, (b) the process of achieving the values prevailing in society, including the achievement of the value of society's life goals, and (c) a manifestation of emotional responsibility and stability.

Education is a process that must be passed by a human and therefore can eventually solve potential real life problems in the future. Thus, every learner must be able to develop all the competence he/ she has to be equipped to face global challenges. Kereluik, et al., (2013) state that the competencies that must be mastered by each learner in the 21st century include: foundational knowledge (to know), meta-knowledge (to act), and humanistic knowledge (to value). The hierarchy can be seen in Figure 1 below.

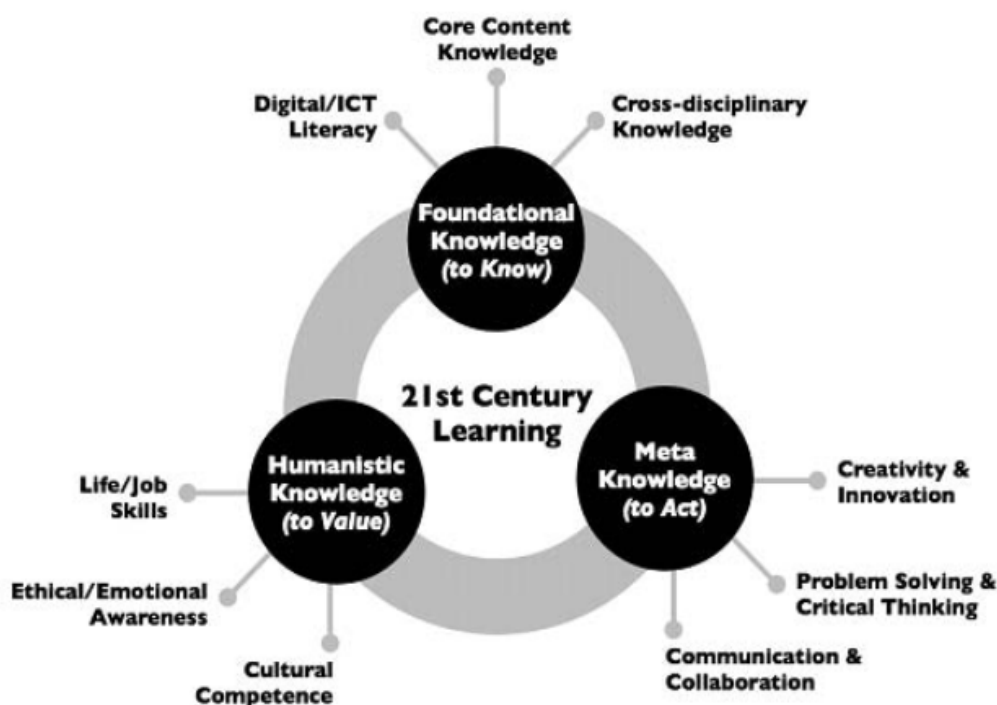


Figure 1. A visual image of the synthesis of fifteen different 21st century framework learnings (Kereluik, *et al.*, 2013)

We can emphasize that a learner is required not to possess and develop cognitive aspects only (foundational knowledge), but more than that which can be seen in Figure 1. Learners should also possess and develop meta-knowledge (knowledge of the working process with basic knowledge), and humanistic knowledge (a form of knowledge that offers the learners self-vision and location within the broader social and global context).

In essence, the learning activity is a process of interaction between learners with the environment, which allows the behavior change to a better direction. Learning environment becomes one of the supporting factors in the implementation of the learning process. Wahyudi and Treagust (2004) report their research findings on the assessment of the learning environment of the science class and its relation to the two student learning outcomes (attitudes toward science and the value of national examinations). This study shows that the learning environment has a relationship with student learning outcomes. Therefore, it has an effect on the learning processes and outcomes of students (Choi, *et al.*, 2013; Phillips, Mc Naught, & Kennedy, 2010). In addition, the presence of educators should not be ignored, where they have the important task to condition the learning environment in order to support the occurrence of meaningful learning activities for learners. Hence, the practice of education as an effort to educate the next generation of the nation, to have high knowledge and skills, to be able to live in the community, and to face global challenges, can take place well. Based on the results of Kyriakides, Creemers, and Antoniou (2008) study, teachers who apply more advanced types of behavior have students with better learning outcomes.

However, in the real situations at school, teachers often ignore the importance of students' interaction and the environment to achieve meaningful learning. To achieve meaningfulness in learning, learners are encouraged to take an active role in discovering knowledge built on their own experiences. Application of student-oriented learning models or involving students actively in the learning process is one way that can be done by teachers. Otten (1985) mentions the fact that the concept of experiential education has evolved as a correction of traditional education. Furthermore, Campbell (1999) mentions that the epistemological foundation of experiential education was popularized by John

Dewey (1859-1952). Dewey's contribution to experimental learning theory is summarized by Donald Kolb's (1984) in *"Experiential Learning: Experience as the Source of Learning and Development"*.

Briefly, this current study will alert the teachers to consider adopting a learning model that can develop all the abilities of students in the future. The paper is structured as follows; the first part introduces and discusses experiential education and examines the various literature reviews on experiential learning and service learning, and the last part gives a conclusion.

2. Method

This is a literature study, which review the results of research related to experiential education. The sources of this literature review were articles from journals and proceedings, books related to experiential education, and experiential learning and service learning. The data were analyzed using qualitative descriptive analysis techniques.

3. Results and Discussions

The Overview of Experiential Education

Experiential education is an educational philosophy that describes the educational process that instills direct experience for educators, learners and environment. The term experiential education cannot be exchanged with experiential learning, but experiential learning is based on the method of experiential education. Itin (1999) defines experiential educational philosophy as 1) the place of experience, and 2) the interactive nature of transactional experiential education between fellow learners, between students and teachers, and between learners and their environment. It should be understood that this transaction is seen as an experience and a part of experience in this philosophy.

Carver (1997) mentions that within the conceptual framework of experiential education, students' experience is considered as a process and a result which becomes the heart of the learning environment. This is influenced by the characteristics of the specific education program and the characteristics of the setting. The framework of experiential education can be seen in the following figure.

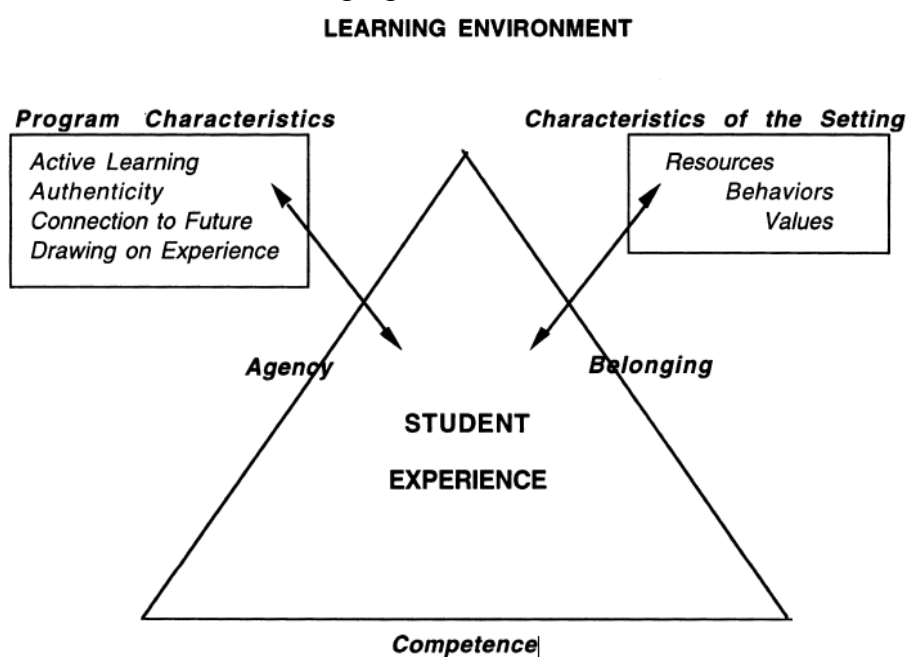


Figure 2. Conceptual Framework of *Experiential Education* by Carver (1997)

Gross and Rutland (2017) mentions that Experiential Education, as defined by the

Association for Experiential Education (AEE), includes both educators and learners and is "a philosophy that informs many methodologies in which educators intentionally involve learners in direct experience and reflection focused on improving knowledge, developing skills, clarifying values, and developing the capacity of communities to contribute to their communities".

Experiential education can be done in various forms, ranging from learning activities in the classroom, camp activities, self-development program to adventure programs, and so forth. The main focus of experiential education is to link the active and participatory experiences with reflection to deepen learning and enable students to acquire new skills and knowledge. Research conducted by Ives and Obenchain (2006) reveals that experiential education instruction in high school class can promote higher thinking ability (HOTS) higher than the use of traditional teaching. Shellman (2014) argues that experimental educational programs typically give participants many opportunities to organize, work toward, achieve goals, identify utilize resources, demonstrate initiatives, expand and receive support from others, take leadership roles, make decisions, survive in the challenges, solve the problems, and go beyond perceived limits. Furthermore, Hoffman and Silverberg (2015) mention that experiential education helps students get authentic experience.

In this article, there are two models of learning are discussed based on experiential education, they are experiential learning and service learning. Both models are expected to give an idea of an effort that can be done in obtaining meaningfulness in learning.

Experiential Learning

Experiential learning defines learning as the process by which knowledge is created through a change of experience form and caused by a combination of understanding and transforming experience (Kolb, 1984). Kolb and Kolb (2008), stated that Experiential Learning Theory (ELT) integrates the basic works of experiential learning scholars, consisting of six propositions as follows: (1) learning is best conceived as a process, not in terms of outcomes; (2) all learning is re-learning; (3) learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world; (4) learning is a holistic process of adaptation; (5) learning results from synergetic transactions between the person and the environment; and (6) learning is the process of creating knowledge.

David Kolb's learning model is based on experiential learning theory which highlights two interrelated approaches in understanding experiences, namely concrete experiences and abstract conceptualizations, as well as two approaches to change experiences, namely reflective observation and active experimentation (Huda, 2015). Experiential learning model is a learning model that enables students to build knowledge and skills through their experiences directly. Experience in interacting with the environment becomes a catalyst to motivate students to develop capacity and ability in the learning process.

The experiential learning model developed by David Kolb consists of five steps (Fathurrohman, 2015), namely experience, sharing, process (experience analysis), generalization (taking wisdom or drawing conclusions), and application. The model cycle is illustrated as follows (Figure 3):

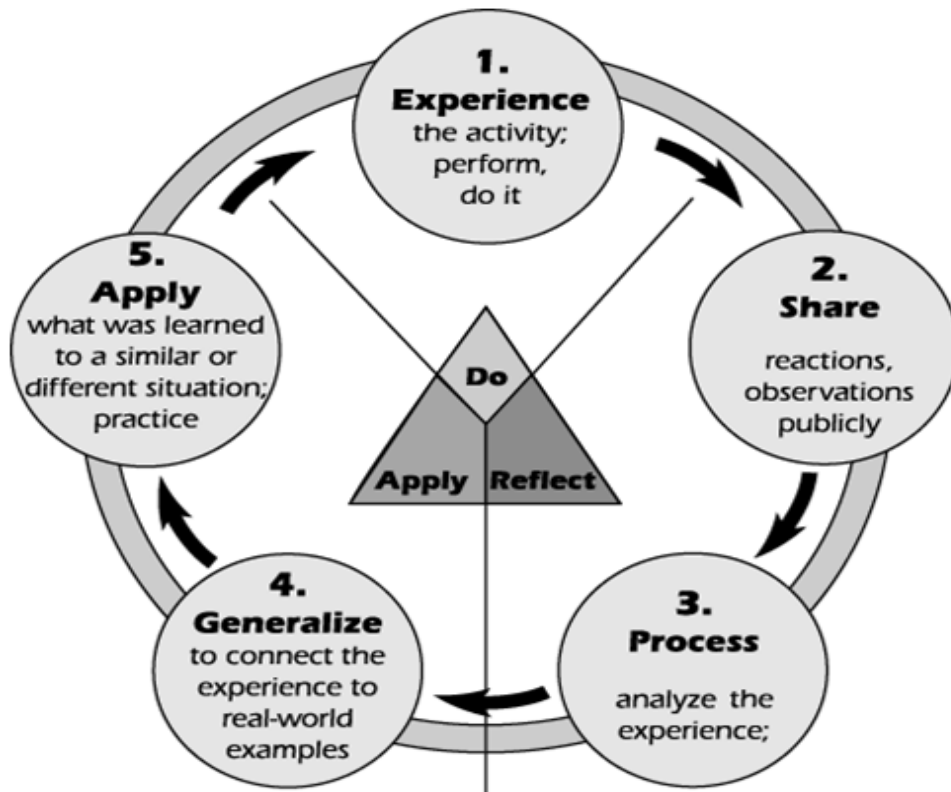


Figure 3. Cycle of Model of Experiential Learning by David Kolb

It can be seen that, basically, the cycle in the experiential learning model starts from doing, reflecting, and applying the knowledge gained during the learning process (Figure 3). However, if reviewed further, the cycle consists of five stages, namely the stage of experience, sharing, processing, drawing a conclusion, and applying the obtained experience.

Furthermore, the steps of David Kolb's experiential learning shown in Figure 4 below:

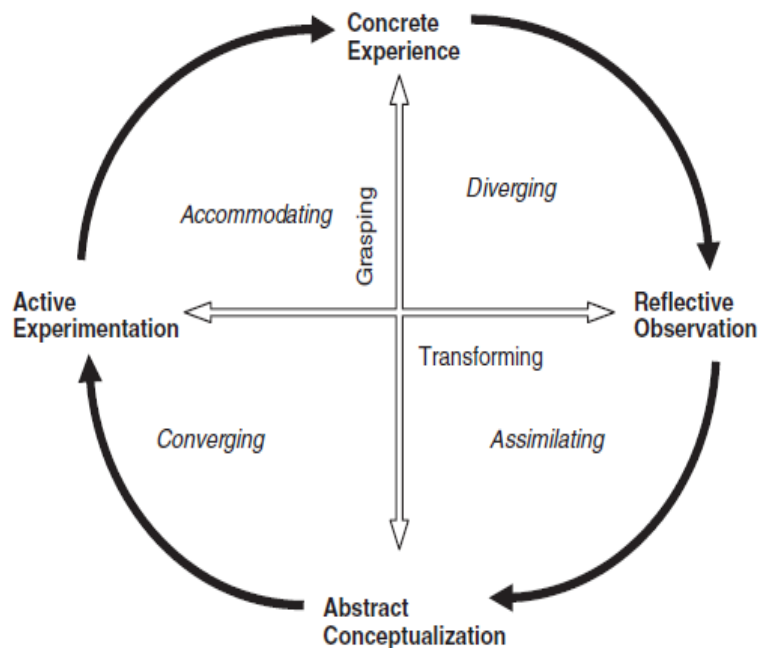


Figure 4. Steps in Model Cycle of Experiential Learning by David Kolb (Kolb and Kolb, 2008)

It is known that there are four learning styles in David Kolb's Experiential Learning Model which is shown in Figure 4, they are: (1) *divergence*, a learning style that tends to prefer concrete experience and reflective observation. People with this learning style are imaginative and skilled in generating ideas and seeing things from different perspectives; (2) *assimilation* is a learning style that prefers abstract conceptualization and reflective observation. People with this learning style are able to create theoretical models inductively; (3) *convergence* is a learning style characterized by the ability to perform abstract conceptualization and active experimentation. People with this learning style are good at practicing ideas and using deductive reasoning to solve problems; and (4) *accommodation* is a learning style using concrete experience and active experimentation. People with this learning style are very skilled at involving themselves with the world and prefer to do something rather than just reading and reviewing it (Huda, 2015). The steps in David Kolb's experiential learning that have been shown in Figure 4 can be described in Table 1 as shown in the following.

Table 1. Steps of Experiential Learning Model by David Kolb

Skills	Learning Activities	Involvement
<i>Concrete Experience</i>	Learning from specific experiences and being sensitive to the situation	<i>Feeling</i>
<i>Reflective Observation</i>	Making observation prior to taking a decision by observing the environment from different perspectives Looking at things to gain meaning	<i>Watching</i>
<i>Abstract Conceptualization</i>	Analyzing ideas logically and acting according to the understanding of a situation	<i>Thinking</i>
<i>Active Experimentation</i>	Being able to do things with people and act on events, including risk taking.	<i>Doing</i>

The strengths of each step in the Experiential Learning model are as follows (Corbett, 2005).

- 1) Convergence, which is done through abstract conceptualization and analysis in existing knowledge to find solutions to problems.
- 2) Assimilation, which is done through conceptualization, reflection, and observation to create seemingly separate activities into a single entity.
- 3) Divergence, which is done through the use of concrete experience, observation, and imagination to gain meaning from learning activities.
- 4) Accommodation, which is done through the use of experience and experimentation for planning, seeking opportunities, engaging in learning activities, and taking action.

Many studies have tried to uncover benefits and used experiential learning models in various fields of science. For example, the research conducted by Zhai, et al. (2017) which was carried out by adopting experiential learning theory. They found that the *Personalized Learning Climate* and *Previous Learning Experience* had a positive (and associative) effect on *Student Satisfaction*. Wolske, Rhinesmith and Kumar (2014) also introduced experiential learning models to support teaching, research, and practice in the Library and Information Science (LIS). They call this concept as *Community Informatics Studio*. According to Dornan and Bundy (2004), experiential learning will provide several benefits, namely (1) experience as a "broadener"; (2) experience to achieve effective results (including self-confidence, motivation, self awareness, awareness of others, and overalls); (3) experience to support cognitive processes (including strength and depth of learning, contextualization of learning, and developing intellectual skills); and (4) teaching experience of subject matter (including foundation sciences, communication, etc.).

Service Learning

Service learning is a teaching method that connects academic learning with positive and meaningful actions in society, or incorporates materials and theories obtained through formal education to be applied in non formal environments. Díez, et al. (2009) states that "service learning is a set of learning activities, learning resources and supportive facilities used to meet certain learning objectives". Waldner, et al., (2011), mentions that Service learning (SL) is a method of teaching where students do work or create products for the partner community in a certain way that improves the content of the lesson. Furthermore, Farber (2011) explains that service learning is a learning tool to empower students in solving problems in their own communities, or even around the world.

Service learning can be categorized in experiential education process. Jacoby (2015) mentions that based on the work of Dewey, Jean Piaget, and Kurt Lewin David Klob's Experiential Learning Model also serves as one of the theoretical foundations of service learning. The experiential learning model consists of four elements, namely: concrete experience, reflective observation, abstract conceptualization, and active experimentation. These four elements form a learning cycle. Individuals can enter the cycle on each element, but service learning and other forms of experiential education are often designed to begin learning from concrete experience. Service learning involves students in real experience followed by a critical reflection on service experiences and in the learning of curricular services, with academic content.

The concept of service learning is to provide service to others. Service learning is a method or teaching strategy whose emphasis on reflection activities is to provide opportunities for learners to be able to serve others, by combining learning in the classroom and applying the science and theory in accordance with the needs and problems existing in the community. McFall and Braun (2007) state that service learning combines the purpose of the service with the aim of learning and the intention that the activity changes in accordance with the recipient and provider of the service. This is executed by combining service tasks with structured opportunities that connect tasks with self-reflection, self-discovery, the acquisition and understanding of values, skills, and knowledge content. The conceptual model for service learning is shown in Figure 5.

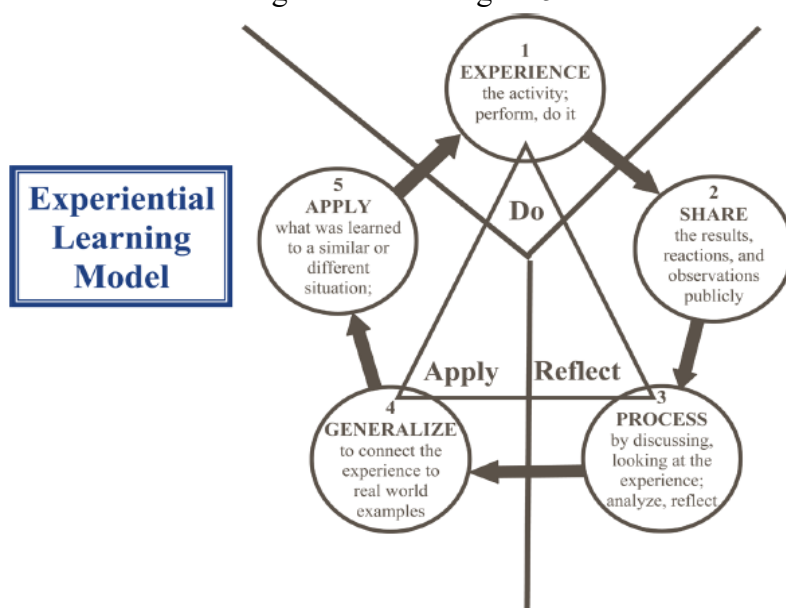


Figure 5. Conceptual Model of Service Learning (McFall and Braun, 2007)

The model for the development of service-learning experience can be conceptualized as shown in Figure 5, where the model is iterative, allowing students to share, reflect, and process their experiences and learning. Teachers can guide students through questions with open answers, stimulating thoughts and feelings. In the generalization and application stages, teachers can guide students to make connections between the meanings of the activity privately with the wider world.

The purpose of service learning is to train the sensitivity of learners to the environment and society, to love others, and have the ability to think critically to answer the needs and challenges that exist in society. Celio, Durlak and Dymnicki (2011) mention that students' participation in service learning give positive result in five areas, they are, attitude toward self, attitude toward school and learning, citizen involvement, social skill, and academic achievement. Through service learning, students have also grown in various social skills related to communication, leadership, and problem solving, which can ultimately lead to improved academic achievement.

Tan, et al. (2013) also mentions the purpose of service learning which is divided into two perspectives, namely: (1) service objectives, to meet the needs of the community through the involvement of students, staff and community partners in meaningful service; and (2) learning objectives, namely the learning through reflection, facilitation and program design, and to foster integrity, resilience, resourcefulness and compassion through service to the community. Therefore, it can be concluded that service learning provides: (1) student learning opportunities by combining theory with experience, and thinking with action; (2) meeting the needs of the community through meaningful and relevant direct services; (3) raising students' awareness in helping others; and (4) the relevance of academic studies that students get with real-world needs.

4. Conclusions

Experiential education can improve the meaningfulness of learning and increase the likelihood of students to be able to use the knowledge, critical skills, and experience gained in the learning process to address and face global challenges throughout their lives. Besides, experiential education can also help students' academic transition so that every science gained can be applied in the real world (especially at work in their later life). In addition, the experience of community service leads them to be more involved as a citizen and they become actively participating in community life.

The learning model that can be used by teachers in developing all students' abilities in the future includes experiential learning and service learning. Both models are expected to provide opportunities for teachers to actualize learners' potentials integratively and responsibly. Future researchers can use this review to quickly identify a learning models that require improvement so they can proposed a new approach in the field of education.

References

- Campbell, C. (1999). Empowering pedagogy: Experiential education in the social work classroom. *Canadian Social Work Review / Revue canadienne de service social*, 16(1), 35-48.
- Carver, R. L. (1997). Theoretical underpinnings of service learning. *Theory Into Practice*, 36(3), 143-149.
- Celio, C., I., Durlak, J., & Dymnicki, A. (2011). A meta-analysis of the impact of service-learning on students. *Journal of Experiential Education*, 34(2), 164-181.
- Choi, S-M., Guerin, D. A., Kim H-Y., Brigham, J. K., & Bhauer, T. (2013). Indoor environmental quality of classrooms and student outcomes: A path analysis approach. *Journal of Learning Spaces*, 2(2), 2013-2014.
- Corbett, A., C. (2005). Experiential learning within the process of opportunity identification and exploitation. *Entrepreneurship Theory and Practise*, (July), 1042-2587.

- Dewantara, K., H. (1962). *Karja I (Pendidikan)* [Karja I (Education)]. Jogjakarta: Pertjetakan Taman Siswa.
- Díez, D., Malizia, A., Aedo, I., Díaz, P., Fernández, C., & Doderó, J. M. (2009). A methodological approach to encourage the service-oriented learning systems development. *Educational Technology & Society*, 12 (4), 138–148.
- Dornan, T., & Bundy, C. (2004). What can experience add to early medical education? Consensus survey. *BMJ*, 329, 1–6.
- Farber, K. (2011). *Change the World with Service Learning: How to Organize, Lead, and Assess Service-learning Projects*. Lanham: Rowman & Littlefield Publishers, Inc.
- Fathurrohman, M. (2015). *Model-model pembelajaran inovatif* [Inovative learning models]. Jogjakarta: Ar-Ruzz Media.
- Gross, Z., & Rutland, S. D. (2017). Experiential learning in informal educational settings. *Int Rev Educ*, 63, 1–8, DOI 10.1007/s11159-017-9625-6.
- Hoffman, S. J., & Silverberg, S. L. (2015). Training the next generation of global health advocates through experiential education: a mixed-methods case study evaluation. *Canadian Journal of Public Health / Revue Canadienne de Santé Publique*, 106(6), e442–e449.
- Huda, M. (2015). *Model-model Pengajaran dan pembelajaran – Isu-isu metodis dan paradigmatis* [Teaching and learning models-Methological and pragmatic Issues]. Yogyakarta: Pustaka Belajar
- Itin, C. M. (1999). Reasserting the philosophy of experiential education as a vehicle for change in the 21st century. *The Journal of Experiential Education*, 22(291–98).
- Ives, B., & Obenchain, K. (2006). Experiential education in the classroom and academic outcomes: For those who want it all. *Journal of Experiential Education*, 29(1), 61–77.
- Jacoby, B. (2015). *Service-learning essentials: questions, answers, and lesson learned*. USA: Jossey-Bass.
- Kereluik, K., Mishra, P., Fahnoe, C., & Terry, L. (2013). What knowledge is of most worth: Teacher knowledge for 21st century learning. *Journal of Digital Learning in Teacher Education*, 29(4), 127–140.
- Kolb, A. Y., & Kolb, D. A. (2009). Experiential learning theory: A dynamic, holistic approach to management learning, education and development. In Armstrong, J. S., & Fukami, C. V. (Eds.). *The SAGE handbook of management learning, education and development*. London: SAGE Publications Ltd.
- Kolb, D. A. (1984). *Experiential learning: Experience as a source of learning and development*. New Jersey: Prentice Hall.
- Komar, O. 2006. *Filsafat Pendidikan Non-formal* [Non-formal educational philosophy]. Bandung: CV. Pustaka Setia.
- Kyriakides, L., Creemer, B. P. M., & Antoniou, P. (2008). Teacher behaviour and student outcomes: Suggestions for research on teacher training and professional development. *Teaching and Teacher Education*, 25, 12–23.
- MacFall, J. S., & Braun, C. (2007). Academic service-learning in ecology. *Bulletin of the Ecological Society of America*, 88(4), 401–403.
- Otten, N. (1985). Experiential education and the high school. *Teacher Education Quarterly*, 12(1), 41–50.
- Phillips, R. A., McNaught, C., & Kennedy, G. (2010). Towards a generalised conceptual framework for learning: The learning environment, learning processes and learning outcomes (LEPO) framework. In J. Herrington & W. Hunter (Eds.), *ED-MEDIA 2010, Proceedings of the 22nd annual World Conference on Educational Multimedia, Hypermedia & Telecommunications*, (pp. 2495–2504). Toronto, Association for the Advancement of Computers in Education.
- Shellman, A. (2014). Empowerment and experiential education: A state of knowledge paper. *Journal of Experiential Education*, 37(1), 18–30.

- Tan, V., Hui, L. S., Saad, N. B. M., Hoon, T. S., Jiansheng, L., Victor, A., Tan, J., and Yuexia, M. (2013). *NYJC service-learning programme: Service-learning guidebook 2013*. Singapura: Nanyang Junior College.
- Wahyudi, & Treagust, D., F. (2004). Learning environment and students' outcomes in science classes in Indonesian lower secondary schools. *Journal of Science and Mathematics Education in S.E. Asia*, 27(1), 139-165.
- Waldner, L., Roberts, K., Widener, M., & Sullivan, B. (2011). Serving up justice: Fusing service learning and social equity in the public administration classroom. *Journal of Public Affairs Education*, 17(2), 209-232.
- Wolske, M., Rhinesmith, C., & Kumar, B. (2014). Community informatics studio: designing Experiential learning to support teaching, research, and practice. *Journal of Education for Library and Information Science*, 55(2), 166-177.
- Zhai, X., Gu, J., Liu, H., Liang, J.-C., & Tsai, C.-C. (2017). An experiential learning perspective on students' satisfaction model in a flipped classroom context. *Educational Technology & Society*, 20 (1), 198–210.