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Constructivist Learning Paradigm as the Basis on Learning Model Development

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Abstract

Research on knowledge quality development has been rapidly developed in these several decades, especially to those related to the use of methods in learning. Of the findings, only did few research articles report about the application of constructivist-learning paradigm in the frame of learning process and the model of learning possibly used as the reference to improve the quality of knowledge. This paper aims at discussing the potentials owned by constructivist learning paradigm and trying to put it into a model of learning as an endeavour of improving the quality of knowledge. With regard to the result, it appears that properly using the constructivist-learning paradigm will stimulate the creation of good and competitive academic learning environment, active learning participation, and stimulate education that encourages students to be responsible for their learning where it finally ends in a positive development of knowledge.

Keywords: *Constructivist Learning Theories, Academic Learning Environment, Learning Participation, Learning Responsibility, Knowledge Development*

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Introduction

To produce, excellent, independent and competitive graduate, education institution needs to consider about sustainably keeping the professionalism of their teachers. It is undeniable that the role of teachers within the context of learning is vividly irreplaceable. Teachers are the ones who deal a lot with their students. They see the progress of their students. They notice the strengths and weaknesses of their learners and they are the ones who must initiate action to perfect the shortages their students have for sake of learning development (Ferhat, 2016). Responding to the current trend in education, the role of teachers has now shifted from the teachers as the centre for learning to the students as the center for learning. Teachers are recently demanded to act more as a motivator and facilitator rather than to be as the primary source of information. Becoming facilitator, teachers help facilitate their students to meet the learning target, to learn independently and to find out solution upon the challenges they face within their learning context. While taking the role as a motivator, teachers here are supposed to encourage their learners to persistently maintain their learning eagerness through personal approach and meaningful learning activities.

Teachers have the authority to select methods used for teaching (Nugroho, 2013). In relation to meeting the learning aim, placing a great endeavour to select the most suitable approach for teaching by looking at the input of the learners and the result of learning evaluation is urgently required. Learners are the object of teaching, while at the same time they become the subject to achieve the essence of education. With respect to this, the necessity to design a learning model supportive to the student centered learning activities is worth to strive. However, it is observable that lecture method becomes the most dominantly used teaching method in this recent world, particularly Indonesia and this might be suspected to be one of the common factors to contribute less optimum result in meeting the education aims. Teacher centered approach suggests that teachers be the center of learning, they will act as the primary source of information. As the result, it is possible that the students will rely themselves a lot on the teachers and what makes them become dependent learners. In the context of knowledge development within the frame of modern education, teacher centered approach will probably not be on top priority to select for it is perceived to provide students with less exposure upon the competence they are required to develop. This paper presents how the concept of constructivist learning approach may contribute to creation of active learning environment, active learning participation and learning responsibility, eventually expected to affect learners' knowledge quality development.

Constructivism as a Learning Approach and the Role of Teachers in the Classroom

The theory of constructivism is all about paradigm believes that learning is an active and constructive process. Constructivism is about the nature of knowing, learning and teaching. It is a change of meaning built through experience (Tam, 1999). It takes place in a social-cultural environment, which accommodates the value of diversity and adaptability (Mitchell & Myles, 1988; Dougiamas, 1998). Constructivism is raising as a refreshing idea of learning within educational context after the movement of behaviorist where the concept allows learners to actively get involved in the process of learning (Jones & Brader-Araje, 2002). Learners are an active knowledge constructor of their own learning environment; they grow their own tentative personal theories about the world through experience and put it aside when it does not provide meaningful description of the world (Piaget, 1932; Kelly, 1955, 1963; Mitchell & Myles, 1988; Tam, 1999; Skerritt & Roche, 2004).

The concept proposed by constructivist learning is expected to help learners effectively study when it is conducted through interactive pedagogical practices (Mitchell & Myles, 1988). It believes that a new knowledge construction is made through collaboration, reflection and making use of learners' personal experience (Jordan, 2013). Constructivism has a set of pedagogical bases that are very much likely to help classroom teachers design a desired learning situation and guide them to experience the process of teaching (Tam, 1999). When it is coming into practice, this concept should go farer than just realizing the perspectives, this must be served as a powerful learning concept that allows development for the learners through meaningful activities (Tam, 1999; Skerritt & Roche, 2004). With regard to the principles, the instructional activities must be flexibly designed to match with the students' learning characters and be implemented accordingly, while at the same time, it must be managed to meet the target of learning (Jordan, 2013). In the framework of constructivist learning, students are encouraged to actively participate in the learning activities to promote the development of their own concept of effective learning and possibly suggest ideas for their future learning improvement (Skerritt & Roche, 2004). Constructivism promotes social interaction among the learners. It is a way to develop the skills needed in learning society and provides the learners with a chance to develop their communication skills. In addition, it allows reflection upon the lesson and activities they have and

expose them with different meaningful ideas for sake of making deep conceptual understanding (Weller 2002; Porcaro, 2011).

The concept proposed by constructivist approach may help build learning culture within the learning community. It values the intellectual engagement, meta-cognition and co-construction as well as students' participation and ownership of learning, yet, the active involvement of teachers is mainly needed to renegotiate roles, relationship and responsibilities to optimize students' participation and ownership of learning for the benefit of accelerating re-culturing process (Cornu, Peters, & Collins, 2003). This process is expected to create a desired learning environment that supports collaborative construction of knowledge, ideas, reflection as well as positive reinforcement and coaching from teacher to aid development and understanding in an active and supported learning activity. Through the exposure towards academic content, experiences and learning setting, learners may inductively construct and broaden their own knowledge (Ahston-Hay, 2006). Active learning, meaningful and enjoyable learning context as well as teachers behavior for the learners will have impact on students' learning (Akar, 2003). Social interaction is the nature of constructivist learning practices. When active learning situation is created to promote meaningful sharing and discussion for sake of decision making and problem solving under complex circumstances, it is undeniable that the classroom becomes noisy (Dunlop & Grabinger, 1996; Marlowe & Page, 1998). Teachers are not to share what to do and to know, instead, they need to let them explore about real learning environment (Dunlop & Grabinger, 1996). They further suggest that the job of the teachers are only to help learners understand the content and issues from different perspectives and let those comments upon their finding. Revisiting the implementation of constructivist learning practices, discussion becomes the mostly used method in the classroom, as it is believed to assists learners to get better in touch with the subject matter, understand the academic content and promote the verbal interaction that allows the learners to learn how to conduct discussion in an effective way (Larson, 2000). Critical thinking, problem solving and reflective writing can possibly be applied in the discussion (Akar, 2003). The references help define the essence of constructivism as a learning theory. Learning is seen as a change of meaning built through experience derived from social-cultural exposure (Dougiamas, 1998; Tam, 1999).

Learners are an active knowledge constructor, they build their own tentative knowledge through collaboration, reflection and making use of their personal experience (Kelly, 1955, 1963; Jordan, 2013). Although, there have been various ideas raising upon the way of bringing constructivist learning theories in practices. However, they all agree that learners are the center of learning and ones need to develop. Educational program needs to be set in such a way to help them better grow. Providing them with meaningful and enjoyable learning environment where it also enables them to develop their critical thinking, ability to solve problem and ability to write reflectively is one of the most considerable proposals. Teachers are not the center of learning, rather, they should be a motivator while at the same time become a facilitator. Their job is to motivate and provide learners with best learning environment that allows them to achieve the goal of learning. Teachers are no longer the source of information. Learners are encouraged to find out their own learning resources to answer the addressed issues, and teachers in this case are supposed to run their function to monitor their learners' progress of learning and help them whenever possible to deal with the learning issue. Internet is one of many available resources learners may use. Being engaged in using this kind of technology will help create a different learning environment.

Constructivist Learning Paradigm and its Implication to Knowledge Development

Quality of knowledge is improved when the process of learning happens meaningfully and is situated in a social context where learners can possibly interact with information through pre-designed learning activities such as observation, question, problem solving and some other possible learning methods. This idea corresponds to the spirit of learning proposed by constructivist learning paradigm. This explains how knowledge is constructed and how learning should take place to make learning meaningful. Constructivist suggests that learning is designed to focus on students where at the same time it enables learners to expose the subject matter they are dealing with. Believing that learning should take place in a social-cultural environment, this concept endorses the creation of learning environment as a powerful learning device. Learning environment becomes powerful when it can engage learners into active learning and social interaction, which promote creativity to persistently expose to different ideas, create and reconstruct knowledge to achieve deep conceptual understanding, reflection, articulation and communication skill development, (Tam, 1999; Weller, 2002; Ahston-Hay, 2006; Perkins, 2006). With regard to the characteristics, discussion, collaborative learning, problem and project based learning activities are some of the possible methods teachers can use to get learners active

into the lesson. Teachers are no longer the only source of information, yet a facilitator and learning designer. They are responsible for providing learners with meaningful learning activities. It is also necessary that teachers actively socialize with the learners within the frame of learning process and are willing to learn about the strength and weakness upon the activities organized during the educational processes to be later used as the basis for improving the quality of learning. Learners are unique, the way they learn are different from others. However, this state of difference cannot be the reason for them not to be actively involving in the process of learning. To make them be active and to help them improve their learning performance, teachers need to guide them, ease the learning and pay attention to what they need for learning. Previous research conducted by (Mingazova, 2014) suggests that being active in learning improves learners' pro-action, creativity and independent learning, for sake of cognitive development. Independent learning or generally acknowledged as both autonomous and self-directed learning are condition where learners show willingness to take more responsibility for controlling over their learning activities to meet the goal of learning and to help them better understand about their roles as a learner in the learning process (Reinders, 2010). Similar with making learners be active in learning, independent learning needs to be executed under guidance of teachers where they need to make sure that the learners are working on accurate constructions, understanding and solution through thinking and reasoning independently towards building abilities to be independent learners.

Having a close look at the literature reviews, these suggest that the theories of constructivism may positively contribute to several aspects of learning; to help create supportive learning environment, increase students' learning participation and endorse ownership of learning that help create positive learning culture among the learning community. With regard to all mentioned, constructivist learning approach is believed to help learners accelerate their knowledge and skill mastery through meaningful practices. Learners are provided with opportunity to expose themselves in real context in order to find the meaning of the subject matter. When this approach is used in practice, it is possible that teachers use a variety of methods, depending on the purpose of learning and target they want to achieve. In many practices, discussion, collaborative learning, problem and project based learning activities are the most commonly used methods across countries.

Adding to the aforementioned, it is observed that if the construct is applied properly within the frame of pedagogical practices by considering the principles, this is highly possible to affect to learners' better learning environment, active learning participation and learners' learning responsibility, which includes independent learning as one of the examples. Having combined those three aspects such as Learning environment, students' participation and learning responsibility, is believed to contribute influence to learners' knowledge quality development created through the learning atmosphere. Below is the empirical model of the ideas.

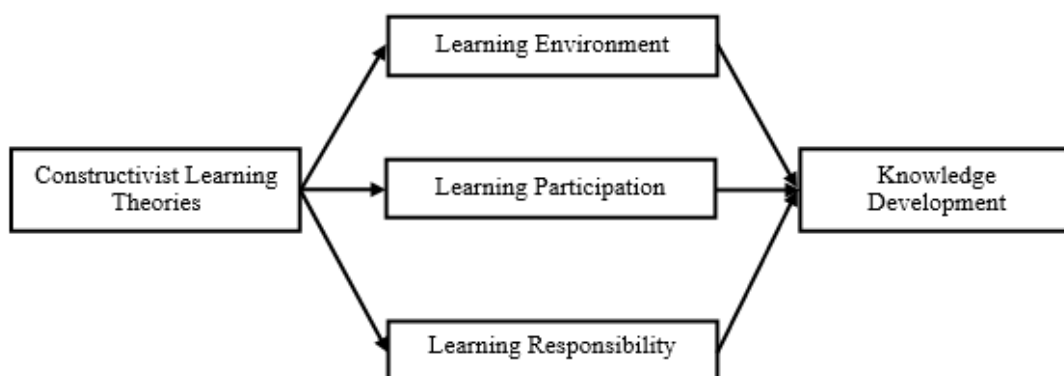


Figure. 1. Empirical Model for Knowledge Quality Development

Conclusions

The theories of constructivism are all about paradigm believes that learning is an active constructive process that takes place in a socio-cultural circumstance. Learners are designed to be active to create a change in meaning through real activities. When it is applied accordingly by considering the principles of constructivism, the concept may help learner effectively improve their ability to critically

think, to solve problem and to write reflectively through predesigned interactive pedagogical practices. These practices will put an endeavor to meet the essence of education through providing quality education. Bringing constructivism as a learning theory into practice is not just a matter of realizing the perspective. It must go farer than it is to meet the desired goals of learning. This construct is a powerful learning paradigm, which allows skill and cognitive development for learners. This concept endorses that learners be the center for learning and this makes role of the teachers change from the traditional concept of learning into the recent one. Within the framework of constructivist learning, teachers are as a learning designer, facilitator and learners' motivator. Their active involvement is essential to renegotiate roles, relationship and responsibilities to improve learners' participation and ownership of learning. Previous researches suggest that working properly towards materializing this concept into practice is proven to create active learning environment, learners' active participation and learners' learning responsibility that eventually influence the learners' view of the world and their quality of skill as well as academic knowledge.

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References

- Ahston-Hay, S. (2006). Constructivism and Powerful Learning Environments. *9th International English Language Teaching Convention "The Fusion of Theory and Practice"*222. Retrieved from <http://eprints.qut.edu.au/17285/1/17285.pdf>
- Akar, H. (2003). Impact of Constructivist Learning Process on Preservice Teacher Education Students' Performance, Retention and Attitudes, (December), 1–286. Retrieved from <https://etd.lib.metu.edu.tr/upload/3/1102136/index.pdf>
- Cornu, R. Le, Peters, J., & Collins, J. (2003). What Are The Characteristics of Constructivist Learning Cultures ?, 44(0).
- Dougiamas, M. (1998). A journey into constructivism. Retrieved August 13, 2001, from <http://dougiamas.com/writing/constructivism.html>.
- Dunlop, J.C., & Grabinger, R.S. (1996). Rich environments for the active learning in higher education. In G. B. Wilson (Ed.), *Constructing learning environments: Case studies in Instructional design* (pp. 65-82). Englewood Cliffs: Educational Technology Publications.
- Ferhat, Y. (2016). An Institutional Perspective into Professional Development of English Teachers : A Case of Schools of Foreign Languages, 232(April), 828–832. <http://doi.org/10.1016/j.sbspro.2016.10.112>
- Jones, M. G., & Brader-Araje, L. (2002). The Impact of Constructivism in Education, Discourse and Maeaning. *American Communication Journal*, 5(3), 1–10. Retrieved from <http://acjournal.org/journal/vol5/iss3/special/jones.pdf>
- Jordan, C. (2013). Comparison of International Baccalaureate (IB) chemistry students' preferred vs actual experience with a constructivist style of learning in a Moodle e-learning environment. *International Journal for Lesson and Learning Studies*, 2(2), 155–167. <https://doi.org/10.1108/20468251311323397>
- Kelly, G. (1955). *The psychology of personal constructs: Volumes one and two*. Norton. New York, NY.
- Kelly, G. (1963), *A Theory of Personality*, Norton, New York, NY.
- Larson, B. E. (2000). Classroom discussion: A method of instruction and a curriculum outcome. *Teaching and Teacher Education*, 16, 661-677.
- Marlowe, A. B., & Page, L. M. (1998). *Creating and sustaining the constructivist classroom*. California: Corwin Press.
- Mingazova. (2014). Modification of the Active Learning Methods in Environmental Education in Russian Universities. *Procedia - Social and Behavioral Sciences*, 131, 85–89. <http://doi.org/10.1016/j.sbspro.2014.04.083>
- Mitchell, H., & Myles, F. (1988). *Second language learning theories*. London: Arnold.

- Nugroho, K. Y. (2013). *The Applicability of Small Group Discussion in English Reading Class*. Semarang, Indonesia: State University of Semarang.
- Perkins, D. 2006. Constructivism and troublesome knowledge. In *overcoming barriers to student understanding: Threshold concepts and troublesome knowledge*, ed. J.H.F. Meyer and R. Land, 33–46. Abingdon: Routledge.
- Piaget, J. (1932), *Moral Judgment of the Child*, Kegan Paul, Trench, Trubner and Co., London.
- Porcaro, D. (2011). Applying constructivism in instructivist learning cultures. *Multicultural Education & Technology Journal*, 5(1), 39–54. <https://doi.org/10.1108/17504971111121919>
- Reinders, H. (2010). Towards a Classroom Pedagogy for Learner Autonomy: A Framework of Independent Language Learning Skills, 35(5).
- Skerritt, O. Z, & Roche, V. (2014). Quality Assurance in Education A constructivist model for evaluating postgraduate supervision: a case study A constructivist model for evaluating postgraduate supervision : a case study. <http://doi.org/10.1108/09684880410536459>
- Tam, M. (1999). Constructivism: Implications for Teaching and Learning. *Journal of Education*, (November).
- Weller, M. (2002), *Delivering Learning on the Net*, Kogan Page, London.
- Zuber-Skerritt, O., & Roche, V. (2004). A constructivist model for evaluating postgraduate supervision: a case study. *Quality Assurance in Education*, 12(2), 82–93. <https://doi.org/10.1108/09684880410536459>