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Regionalization and Harmonization in TVET

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The socio-cultural learning in an Indonesian Polytechnic

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ABSTRACT: Research on the socio-cultural has been conducted extensively in higher education in Western contexts. However, few studies have been focused on learning in vocational higher education in Indonesia. This paper aims to address this knowledge gap. This is an in-depth descriptive qualitative study of six lecturers in an Indonesian polytechnic using semi-structure interviews. The finding reveals that there is an integrated socio-cultural learning cycle applied by lecturers in this polytechnic. This research suggests that theoretical, observational, and practice-based learning are implemented as a learning-continuum. This finding provides a unique contribution and significance to the debates on the socio-cultural learning cycle, both locally and globally.

1 INTRODUCTION

The socio-cultural learning practice has been widely acknowledged and investigated. Socio-cultural learning assists learners to integrate face-to-face interaction in the classroom and wider social community contexts (Renshaw, 1992), bridge socio-cultural and cognitive theorizing in situated learning (Billet, 1996), and facilitate the mastery of specific content in particular contexts (John-Steiner & Mahn, 1996). For these reasons, socio-cultural learning is fundamentally important for lecturers and educators.

Socio-cultural learning refers to 'a process of appropriating "tools for thinking", that are made available by social agents who initially act as interpreters and guides in the individual's cultural apprenticeship' (Rogoff cited in Renshaw, 1992, p. 2). Vygotsky (1978) argues that learners learn best through interaction with their environment. This indicates that learners can acquire knowledge and skills through their engagement with particular socio-cultural contexts. For the context of this study, students not only learn in their campus environment, but they also learn through interaction with peers and engagement with people in their workplace.

The socio-cultural learning in the Indonesian context has not developed much. Studies on socio-cultural learning have mostly focused on cultural and economic perspectives of learning of entrepreneurial intention among Indonesian students (Kristiansen & Indarti, 2004), independent language teaching (Lamb, 2004), and empowering learning through informal education (Kindervatter, 1979). None of studies above has focused primarily on the integration of theoretical, nor observational and practiced-based learning, as part of socio-cultural learning perspectives. This research addresses the above gap and contributes to the understanding of how Indonesian polytechnics apply socio-cultural learning in their teaching practice. This research is significant for teachers and educators to help them perform better practice.

2 SOCIO-CULTURAL LEARNING

The socio-cultural learning involves key elements including theoretical input, interaction, collaboration and learning in the workplace, through problem solving and thinking processes (Renshaw, 1992). Karpov and Bransford (1995, p. 61) define theoretical learning as 'a process of supplying the student with general and optimal methods for dealing with certain classes of problems that direct him or her toward essential (not simply common) characteristics of the problems of each class'. A recent study conducted in United States of America school settings suggested that theoretical learning refers to explanatory and descriptive designs of learning that aim to enhance students' academic achievements (Lancer, 2014). This indicates that theoretical learning is a process of constructing student's theoretical knowledge within classroom contexts that aims to improve their learning outcomes.

In terms of observation, a number of researchers indicated that observation is useful to improve

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subject understanding (Hoover et al., 2012; Renkl, 2014). Observation learning refers to students' abilities to observe other people's behaviors in a variety of academic areas in groups (Bandura & Jeffrey, 1973; Renkl, 2014). Research conducted by Hoover et al. (2012, p. 591) on understanding the benefit of observational learning suggested:

"They [students] benefit from selective observation and the lack of potential distractions produced by behavioral immersion that could confound attentional focus. They suggested that some students engage in role-play simulations, while others observe vicariously."

In relation to the practice-based model, it is a learning process in 'environments in which the knowledge learnt in universities can be practised, refined and honed' (Kennedy et al., 2015, p. 2). Practice-based learning is often associated with different terms: it is a workplace learning because students learn in industrial settings (Kennedy et al., 2015); it is a situated learning (Lave & Wenger, 1991) because students learn in specific programs such as internship programs and work experience placements (Lim et al., 2014); and it is empirical learning (Karpov & Bransford, 1995) because students can provide and confirm authentic experience to their study when dealing with practice setting (Billett, 1996). This implies that practice-based learning is a learning process that occurs in a particular context that aims to provide students with work-related experiences.

3 METHODOLOGY

Descriptive qualitative research was employed in this study. Descriptive qualitative studies relate to 'a comprehensive summary of events in the everyday terms of those events. Researchers conducting qualitative descriptive studies stay close to their data and to the surface of words and events' (Sandelowski, 2000, p. 334). This qualitative study is appropriate to meanings of particular events and activity that occur both inside and outside classrooms (Jensen & Curtis, 2008). In this study, the events occur both inside and outside classroom contexts, where a combination of learning occurs in campus and workplaces.

Data collection method was mainly semi-structure interviews, which lasted between 45 minutes and 1 hour. The interviews were conducted in Indonesian, and the transcriptions were translated into English by a researcher and verified by a competent bilingual researcher and translator. All transcriptions of interviews were sent back to participants in order to provide opportunities for participants to modify and add their comments. The contents of interviews include beliefs and perceptions of learning in a polytechnic.

The participants of this study comprised of six lecturers, three females and three males, with Masters' educational background. Their ages were from 35 to 60. The participants' teaching experiences: 2 were less than 10 years, 2 were about 20 years and 2 were more than twenty years. The participants were coded in P1 (participant one), P2, P3, P4, P5 and P6 respectively. Data was analyzed using thematic analysis procedures (Braun & Clarke, 2006): reading whole data, identifying themes, classifying themes, and identifying core themes.

4 FINDINGS

4.1 *Theoretical learning*

Most participants in this study argue that theoretical learning is one of the key important elements for their learning. As Karpov and Bransford (1995) suggest, theoretical learning relates to providing optimum input for students. Providing input including concepts and strategies is the first foundational step for learning to master subject matter.

For students in this polytechnic, engagement with key concepts and their characteristics helps to build their knowledge and skills prior to observational and practice learning. There are three important strategies to assists learners get an in-depth understanding of subjects: classroom learning, learners' interaction with peers, and own learning. One lecturer indicates that 'They have to have good understanding of concept through classroom teaching, independent learning and learning through interactions with friends' (P6), and that 'learning is done through videos, tutorial, lecture, and demonstrations' (P2).

The reason why classroom learning is important is due to 'the large number of students enrolled in subject; therefore it is easier to lace them together in a large classroom' (P5). While interaction with peers is done 'through series of structured projects given students conducted in groups of four to six' (P1). In addition, independent learning is done through their 'students' journal of learning' (P4).

Another reason for providing theoretical learning is that 'building good foundation is important so that they can perform better job later' (P2). Another participant stated: 'They [students] have to master theory very well prior to observation and practice' (P3). In this case, students are expected to have solid background knowledge of theoretical concepts prior to proceeding to the following stage, which is observational and practice-based learning.

4.2 *Observational learning*

Lecturers in this polytechnic aim to bridge students' understanding of theory and practice via

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observational learning. What they believe important is that students can not directly practice what they have learnt in classroom contexts, but they have to perform structured observation to the subject of their learning. Students have to observe their senior students, lecturers and practitioners. One participant argues that 'every student must have seen the real life of what she or he learns' (P1). By seeing the real-life event, they cognitively perceived the subjects.

There are two important reasons why observational learning is part of their essential element of learning. The first is due to 'students in this polytechnic deal with human' (P3), and the second is 'students have to avoid malpractice or error when they perform real activities' (P4). It indicates that students have to put in their effort to fully understand, for example, how to deal with patients. A student midwife has to observe carefully what the midwife does during the labor.

During the observation, students have to follow several steps: Firstly, students must do structured observation carefully: 'students have to observe carefully before they practice it' (P2). Secondly, students have to write their observational learning via log book: 'They have series of log book from observations' (P5). Thirdly, at the end of their observation, students discuss with each other what they have witnessed and what they have learnt, what went wrong and what were the good points: 'Only after observation, they shared notes with others so that they share and learn from each other' (P3). Finally, all students have to submit their final report of their observational learning to their lecturers: 'all of them have to submit their written report' (P6). During the writing for their report, students consolidate their learning through their observational learning. The observational learning ends when students are fully confident in performing practice learning.

4.3 *Practice-based learning*

Practiced-based learning refers to the experience of students in the workplace (Kennedy et al., 2015), and learning through internship programs (Lim et al., 2014). Most students at this polytechnic perform their practice learning in the workplace and few of the students through internship programs. Their practice-based learning is supervised by both lecturers and employees in the industry workplace where the practice learning occurs.

The reason why practice-based learning contributes to students is that practice-based learning helps students to connect and build network with industry. One lecturer indicates that 'practice based learning help students to get to know who industry stakeholders are' (P6). In addition, practiced-based learning assists students to build their confidence in their learning, as argued by one lecturer: 'it is important for students to build their confidence' (P1). In addition, students can consolidate their knowledge and their skills through understanding the workplace culture: 'they can improve their knowledge and skills in relation to the culture of workplace' (P3). Finally, practice-based learning facilitates the overarching understanding of the subject matter: 'No-body's perfect, but through a series of practiced based learning they will be able to master it' (P4). For these reasons, practice-based learning becomes one of the important learning elements that is embedded in this polytechnic.

5 DISCUSSION

The analysis of the data shows that the findings were different from earlier studies because previous research focused separately on theoretical, observational, and practice-based learning. For example, Karpov and Bransford (1995) and Lancer (2014) concentrated primarily on theoretical and practical learning; Bandura and Jeffrey (1973), Hoover et al. (2012) and Renkl (2014) focused on observational learning; and Kennedy et al. (2015) and Lim et al. (2014) centered on practice-based learning. While this study identified that theoretical, observational and practiced-based learning were implemented and integrated in sequence. The integration of the three concepts formed a learning cycle. This cycle expands what Hollins (2011) described as the socio-cultural learning. The reason why we call it an expanded socio-cultural learning cycle is that it involves cognitive, behavior and socio-cultural settings (Hollins, 2011). In our findings, the theoretical phase involved the cognitive process which was the learning of concepts. The behavior was depicted in the observational learning cycle. The socio-cultural elements are embedded in practiced-based learning because learners gain direct experience in industry.

These learning cycles have implications for lecturers and students. For lecturers, they were required to master both theoretical knowledge and practical skills in order to be able to deliver effective learning in polytechnic settings. For students, the combination of the theoretical, observational and practical learning assisted them to develop competence in their field of study. We believe that these learning cultures are applied in this polytechnic.

6 CONCLUSION

Despite a small-scale study, the finding of this research provides further understanding of

theoretical, observational, and practical (empirical) learning. These elements of learning notions extend understanding of theoretical and practical learning (Karpov & Bransford, 1995) and observational learning (Renkl, 2014). These three stages of learning offer opportunities for students to master theory, further observe how theory works, and gain practical skills in the field. This indicates that the three cycles of learning offer a continuum which is an holistic and overarching approach to learning.

The implication for this finding is that lecturers and educators can apply this finding to help them perform better practice. Thus, this finding is significant for policy makers and educational stakeholders, particularly in relation to polytechnics, so that they can provide appropriate policy and assistance. Thus, this can improve the standard quality of output in polytechnics in particular, and higher education in general. Finally, this finding can be useful for similar settings, in both local and global contexts.

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