ASSESSMENT CONTINUED PROFESSIONAL DEVELOPMENT (CPD) THROUGH MOBILE PHONE IN TEACHER WORKING GROUP; AGE MATTER.

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ABSTRACT

The purpose of this research is to develop guides by the adoption process of mobile phone in teacher working group or "Kelompok Kerja Guru" (KKG) to assess continued professional development (CPD) context with surface, deep and implicit structures. The members of KKGs have disparities age between junior teacher, middle and senior teacher where they have advantages and drawbacks. A KKG provides workshops, training and discussions that are held each month. To enable and foster these activities across diverse communities, across urban, suburban and rural settings where they have intentions to help teachers improve their competences, KKGs use mobile phone platform (for example; WhatsApp, BBM, Line, Facebook, Twitter) to communicate and share ideas between group members. This study still ongoing through working closely with members (young and old) of KKGs to explore the benefits and drawbacks of a mobile learning approach to assess continued professional development context with surface, deep and implicit structures. The methodology of this study uses qualitative research with a case study based on the government project namely Program Peningkatan Kompetensi Pembelajaran (PKP) Berbasis Zonasi (initial in English; Zoning based Learning Competency Improvement Program) to extend through mobile phones in teacher working groups to complete High order thinking skill (HOTS). The project will take several weeks by observation on the mobile phone, semi-interview to find the aim of this study.

KEYWORDS

Assessment, teacher working group, continues professional development, mobile phone

1. INTRODUCTION

The profession of teaching cannot be separated from the education system. Research showed that 30 per cent of the students' success is due to the teacher factor (Lisdiana *et al.*, 2018). Furthermore, Indonesia has seen an exponential increase of teachers over the last decade with the current number of teachers in Indonesia has reached to 3,337,914 teachers (PDSPK Kemendikbud, 2018). However, teacher distribution is uneven (Kompas, 2015). Dewi *et al* (2019) describe that the number of teachers in cities outnumbers teachers in village or rural areas. As a result, the situation trigger has indirectly impeded continuous professional development (CPD) among teachers, and it also disrupts the sustainability and the quality of education (Dewi *et al.*, 2019; Yani, 2006). An example of such case can be seen in the test score of the testing of *Uji Kompetensi Guru* (UKG) (Initial in English: Competency Test for Teachers) for pedagogy and professional competences among teachers who teach in a primary school in Banten, a province of four districts and four cities. Records show that average result UKG in four districts were low rated at 51.13 compared to the average of 56.6 (Kemendikbud, 2019).

One of the efforts of CPD can be done through strengthening the performance of *Kelompok Kerja Guru* (KKG) (initial in English: Teachers Working Group) (Murniati *et al*., 2019). For instance, local government Lampung Province has been recommended teacher working group to help teachers to improve the qualification and skill of the teacher to respond to the low scores of teacher competencies among teachers in Lampung Province at the national rate (LPMP Lampung, 2018). Resmini (2010) recognised the importance of teacher working group as an integral part of the education counselling system where teachers can receive proper aids in improving their quality and subsequently enhancing their skills as a professional teacher. A few studies have examined teacher working groups with technology integration that was included in a collaborative community. (Cifuentes *et al*., 2011; Curwood, 2011, 2014; Hughes *et al*., 2005). For example, the latest study by Thoma *et al*. (2017) involved one group of fifth-grade teachers who were working within a teacher working group framework (TIPC framework), where the purpose of this program is setting instructional goals and changing their thinking and actions. The study shows that teachers were able to overcome several barriers to technology integration, in the way that teachers were able to work collaboratively or they gather a few of their colleagues to solve the problem together, and this may be adapted to fit various teaching and learning situations (Thoma et al., 2017). As the professional teacher is one of the critical factors in education, empowering teacher working group is vital as it can be used as the platform for teachers to improve their skill, knowledge and competencies and eventually, strive to be a professional teacher.

However, every CPD has own goal, but we must understand that CPD is perceived as "teachers' learning" (Postholm, 2012), that is deeply rooted in adult learning theory that advocates long-life learning (Andragogy), where teachers were expected to construct their own meaning (Constructivism) (Sia and Cheriet, 2019). It means that the process of CPD does not end when the training off, but the end of the process; they have formed their personal value, beliefs, and attitudes on the subject being taught. To assess this aim, one of the solution use peer assessment as strategies employed to encourage learners to take more responsibility for the learning process (Seifert and Feliks, 2018). Moreover, the learning process should be habitual, routine, visible, accountable, interdependent, collaborative, emotional, unpredictable, and affect-laden, where Shulman calls as signature pedagogies (Shulman, 2005). In signature pedagogies, there are three dimensions of instructional strategies, namely surface structure, deep structure, and Implicit structure (Eaton et al., 2018). Nowadays, being a teacher requires he or she to constantly move through the course of their job, and mobile phone has become necessary for teachers to interact with people that are both beyond and within one's own school, regardless of time and location to access educational resources (Adning *et al*., 2019; Ally and Prieto-Blázquez, 2014). These analyses bring the ideas to explore the benefits and drawbacks of a mobile learning approach to assess continued professional development context with surface, deep and implicit structures in teacher working group in a case study based on the government project.

2. LITERATURE REVIEW

2.1 The performance of teacher working group to continue professional development

There is no specific term in the Professional Learning Community (PLC). The professional learning communities integrate and function within the school strategic framework and consider the specific school's vision, mission, and values in order to achieve school goals (Hairon and Tan, 2017). In Indonesia, PLCs are divided into several levels (Kemdiknas, 2010). For instance, teachers who teach in primary school are included in either of these groups: *Kelompok Kerja Guru* (KKG) (initial in English: Teacher Work Group), *Kelompok Kerja Kepala Sekolah* (KKKS) (initial in English: Professional Learning Communities for a Head Teacher), *Musyawarah Guru Mata Pelajaran* (MGMP) (initial in English: Professional Learner Communities based on The Subject Material). Furthermore, the PLC is a collection of a group of teachers that are situated in the same

region of particular geographic (Word Bank, 2015), and the membership of the PLC in particular teacher working groups includes all teachers in a particular cluster, regardless of government teachers and non-government teachers and they teach classes and certain subjects in a specific sub-district under the auspices of the Ministry of Education and Culture (Kemendikbud) (Murniati *et al.*, 2019). Moreover, Murniati *at al* (2019) describe teacher working groups as the organizations/associations of classroom teachers. As a result, the group has a mix of teachers from different status, also in age and teaching experience. However, Putri (2015) believes that a smooth teacher working group would be influenced by a smooth line communication which occurs in both formal and non-formal, either in the form of vertical and horizontal.

Furthermore, Thoma *et al* (2017) explain five common characteristics of effective teacher working groups such as sharing a common view of the mission, reflecting on practice, participating in the reflective discourse, offering feedback to one another on instruction and, keeping student learning the central focus. The activity is conducted at least once a month (Kemdiknas, 2010). Example activity is sharing idea in group chat or created focus group discussion to discuss the critical point connect to students' problem every month. Research show that the teacher working groups can bring many benefits, but most importantly, if it is done well, the teacher working groups can result in improving learner outcomes (Hord, 2013) and improving teacher competence, teachers' professional learning and learning process (Hord, 2013; Murniati *et al.*, 2019). Word Bank (2015) describes that the teacher working groups are giving different types of learning and experience in continuing professional development, especially to create workshop, training, and seminar compare to the traditional program. In addition, the networks of the teacher working groups (between and across schools) enable the groups to widen their expertise and to share their most effective practice (Hord, 2013). This is the benefits and advantages of the community of teacher working groups to improve teachers' professional learning and learning process. This benefit prompts the government in Indonesia to initiate Zoning based Learning Competency Improvement Program through the teacher working groups (Lisdiana et al., 2018).

2.2 Utilisation of mobile phone in teacher working group.

Being a teacher requires he or she to constantly move through the course of their job, and mobile phone has become necessary for teachers to interact with people that are both beyond and within one's own school, regardless of time and location to access educational resources (Adning *et al*., 2019; Ally and Prieto-Blázquez, 2014). For example, professional discussions with colleagues to share hints and tips (Picton, 2019), consulting sessions among colleagues in group chat regarding teaching knowledge (Adning *et al.*, 2019), reviewing supporting research with expert (O'Bannon and Thomas, 2014), and accessing expertise that is based outside of their range (Aubusson *et al.*, 2009). Recently, the features on the mobile phone have become common tools in teaching, learning, work, and leisure (Kukulsk *et al.*, 2009). Moreover, many experts describe the mobile phone as a part of mobile learning, which is mobile learning as a process of learning where they are mediated by handheld devices such as smartphones (Ilic, 2013; Kearney *et al.*, 2015; Naismith *et al*., 2004).

Aubusson *et al* (2009) described that the mobile phone is ideally suited to teachers as it provides a process of learning for professionals that is different from their common working and learning context. The previous study show that mostly member teacher working groups have mobile phone but not all members of teacher working groups part of group chat in mobile phone (Adning *et al*, 2019). Moreover, membership in the teacher working group contains a variety of age, status, and teacher experience (Murniati *et al.*, 2019). Referring to Prensky that defines the period of teacher refers to the time when the digital age began, and when the divide occurred, and then, the adaptation to new or emerging technologies (Howlett and Waemusa, 2018; O'Bannon and Thomas, 2014). He categorised teacher whose below 35 years of age (born from 1982) as Digital Native teachers (DNs), and Digital Immigrant teachers (DIs) were those above 35 years of age (born before 1982) (Howlett and Waemusa, 2018). For example, the ability uses a mobile device. Referring to Howlett and Waemusa (2018), who studied how teachers were rating their ability to

use technology from novice to expert (the Dreyfus model of skill acquisition), it was found that the ability of DN's is "proficient" compared to DI's who are competent. The scale indicates that DNs has a deep understanding, sees actions holistically, can achieve a high standard routinely rather DIs (Dreyfus and Dreyfus, 2005a). Moreover, when the study asked, "I can use mobile devices with ease," there was a significant difference between DNs and DIs, as DNs felt significantly more confident at using mobile devices than DIs. A similar study in Indonesia shows that the result indicates that the junior teachers perceived themselves as experts (63% of the respondents) in using the mobile phone, and they rated themselves higher than senior teachers (23%) (Adning et al., 2019).

The rapid technology on mobile phone toward smartphone has assigned odds for people not only to communicate but also to do other activity. For example, O'Bannon and Thomas (2014) describe that the primary tools identified by teachers as useful for school-related work using the mobile phone is the internet, educational apps, calculators, and the calendar for administrative and instructional tasks. In particular, dimensions of the messaging applications are rooted in mobile phones, and are specifically designed for mobile phones (WhatsApp, BBM, Line, Facebook, etc.), which can be identified as mobile-based social networks, have started to become popular (Cetinkaya, 2017). For instance, Adning *et al* (2019) describe activity teacher in group chat is share information, knowledge, and junior teacher more active rather than the senior teachers in teacher working group. It means that applications have eased the interaction between individuals and groups, provide various opportunities for social feedback and support the formation of complicated social relations, show how enormous people's want is for these networks (Cetinkaya, 2017).

In general, the mobile phone has become necessary for teachers to interact with people or colleges. Furthermore, the mobile phone has become ideally suited to teachers as it provides a process of learning for professionals that is different from their common working and learning context. However, the capability and skill of junior teachers or the digital natives are more proficient and expert using the mobile phone. Furthermore, a few studies have examined teacher working groups in which technology integration was included in a collaborative community in specifically the use a mobile phone, but technology gives space to engage in dialogue around content, technology, and student learning outcomes.

## 2.3 Assessment CPD through mobile phone through teacher working group

Nowadays, the government of Indonesia through the Ministry of Education and Culture are developing CPD for teachers named *Program Peningkatan Kompetensi Pembelajaran* (PKP) *Berbasis Zonasi* (initial in English; Zoning based Learning Competency Improvement Program), which is a part of continue professional development that was mandated from statute, and will be running by PLC (Lisdiana *et al*., 2018). The program also aims to build learning process, improve teachers competencies through coaching in planning, implementation, cultivating the skills to perform learning evaluation with an orientation to skill process for improving students competencies with higher-order thinking approach (Lisdiana *et al*., 2018). Furthermore, this training is done in a way that teachers need to perform analyses, synthesis and creation, to cultivate and mirror the method and strategies of high order thinking skills (Ariyana, Pudjiastuti, Bestary, & Zamroni, 2018; Mediaindonesia.com, 2019). It is hoped that by the end of the program, teachers would be accustomed to deliver a lesson based on HOTS skills (Lisdiana *et al*., 2018). This program is open for all levels of teachers (Ariyana et al., 2018). The details of the program can be referred to figure 1 below.

Figure 1: Flow chart implementation Zoning based Learning Competency Improvement Program
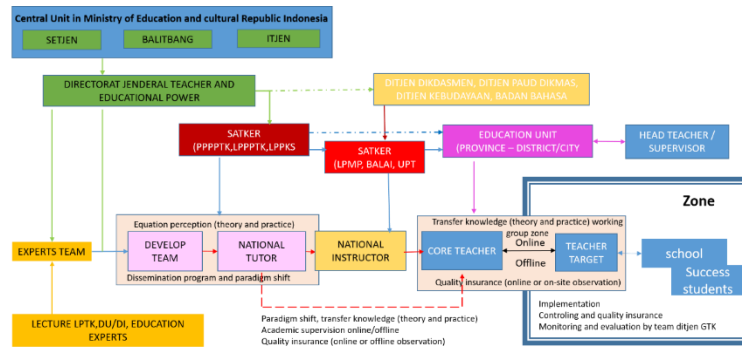
At the end of the program, the teachers would receive a certificate that confirms their status as competent or incompetent, and the status was granted on many factors such as attendance, attitude, and participation (discuss, doing tasks) (Lisdiana et al., 2018), and coursework performance during On-job training, and observation checklist in the class (figure 2) (Handayani *et al*., 2018). This is part of assessment.

Figure 2: Step of learning activities in Zoning based Learning Competency Improvement Program
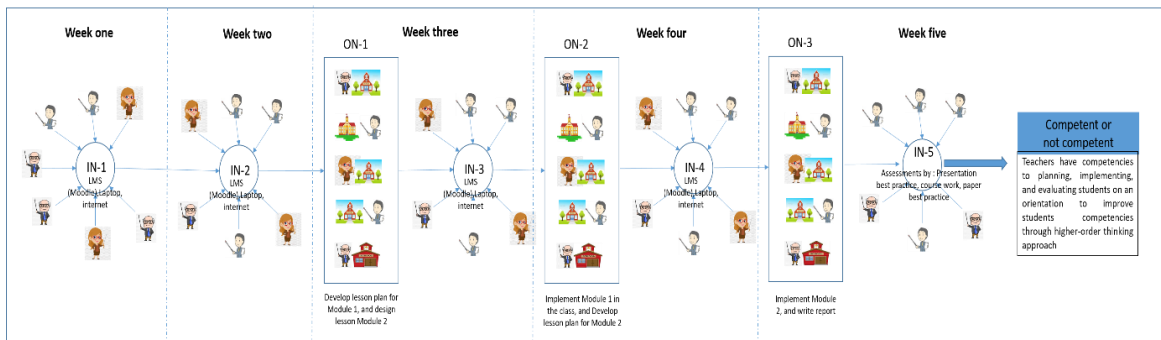
However, the term assessment refers to the extensive form of methods or tools that educators use to assess, measure, and document the academic readiness, mastering progress, skill acquisition, or educational needs of learner (Edglossary, 2019). Furthermore, it was feared that this program only promotes surface learning because surface learning tends to occur when learning is in isolation, where knowledge and practice are not integrated, and teachers are isolated from a learning community (Redmond et al., 2008). Moreover, CPD that we understand should have expected to construct their own meaning on the subject being taught as rooted in adult learning (Sia and Cheriet, 2019). This is in line with the signature pedagogies approach that features habitual, routine, visible, accountable, interdependent, collaborative, emotional, unpredictable, and affect-laden (Shulman, 2005). It means the process of teacher get knowledge about high order thinking skill not stop at the end of training but should be continues until they have personal value, moral, personal attitude and dispositions.

One of the type assessment is peer assessment. Könings *et al*., (2019) describe that peer assessment is an 'arrangement in which individuals consider the amount, level, value, worth, quality, or success of the products or outcomes of learning of peers of similar status'. Moreover, learners evaluate the performance of their fellow learners (Könings *et al*., 2019). Some scholars claim that learner' performance of assessment increases their involvement, independence and the extent of their assertiveness and improves their thinking processes (Seifert and Feliks, 2018). Moreover, several advantages using peer assessment such as encourages learner involvement and responsibility in the project and students are involved in the process and are encouraged to take part

ownership of this process (Sydney, 2019). Moreover, peer assessments to determine a part of the grade in a project work decreases social loafing (Kulturel-konak *et al.*, 2014).

Nowadays, using mobile phone is one alternative to help teacher to get value as instrument to assessment. The utilisation of technological means for assessments should be focused so that technology can support the assessment process, produce digital feedback and increase the learner's ability to regulate their performance, and enhance the efficiency and effectiveness of the assessment. Furthermore, refer to Pachler *et al.*, (2010) that mobile phone is not about delivering content to mobile devices but, instead, about the processes of coming to know and being able to operate successfully in, and across, new and ever-changing contexts and learning spaces. It is about belief and knowing how to utilise our everyday life-worlds as learning spaces (Pachler *et al.*, 2010). Inside of this, there is process evaluation and assessment for learning process.

However, the mobile phone is opening the doors for enabling education across time and location and communication, and data gathering has never made others than now (Ilic, 2013). Moreover, Ilic (2013) suggested three main elements in the framework of the mobile phone, namely personalisation, authenticity, and collaboration. The element of collaboration is important part for people to get feedback. For example, learners need to have the platform to communicate and to discuss where they can sharing knowledge and information that they get in training and make it clear. Furthermore, based on the survey in 2017, the number of people who owned a mobile phone (50,08%) has exceeded the number of people who owned a laptop (25,72%) and tablet (6.52%) in Indonesia (APJII, 2018; Kominfo, 2017). In Indonesia, it is reasonable to assume that everyone, regardless of location, has access to the mobile phone. It seems that engage learner more positively in the learning process has allowed them to be involved in evaluating their group work by using technology.

2.4. A Pilot Study

In order to clear this, a pilot study still ongoing through working closely with members of the teacher working group to explore the benefits and drawbacks of a mobile phone approach to assessing continued professional development context with surface, deep and implicit structures. In the learning process, mobile phone as a stimulus for teachers to helps other colleagues as learners to achieve and evaluate what the got during the practice and training (figure 3). The methodology is qualitative research with a case study that is based on the government project to extend the use of mobile phones in teacher working groups to complete the higher order thinking skill. Specific requirements, namely participants, must have a mobile phone with data connections, even though the capability of using the mobile phone inadequate. The expected size of the sample is between 30-50 teacher in the same area with an equal number between young teachers and junior teachers. Another condition is teachers who teach in level 4 until level 6 primary school.

Figure 3: Mobile phone framework in Zoning based Learning Competency Improvement Program

Participants joined zoning based learning competency improvement program is considered to have a surface knowledge in high order thinking skill. To extend the knowledge deeply and implicitly, it must be continued to the next phase. Phase two is a simulation scenario through mobile phone in teacher working group to extend HOTS knowledge deeply and implicit in high order thinking skill and getting assessment from peer. This strategy is an attempt to understand the potential of mobile phones to assess continues professional development through teacher working group after zoning based learning competency improvement program.

3. CONCLUSION AND EXPECTATION

Building on arguments presented in this paper, the main aim of this study is to contribute to the growing body of research by exploring the mobile phone potential to assess the continuous professional development of teacher working group members in the context of a developing country, and Indonesia was chosen as the country of study. It also aims to develop and empirically test a relevant theoretical framework. Even though this project still ongoing through working closely with members (young and old) of teacher working group to explore the benefits and drawbacks of a mobile learning approach to assess continued professional development context with surface, deep and implicit structures. Furthermore, the expectation this research may provide a better understanding of mobile phone potential to the teacher working group not only for communication but also assessment with other peer using the feature in mobile phone in particular learn about High Order Thinking Skills approach as subject being taught.

ACKNOWLEDGEMENT

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