REVISITING TEACHERS' INNOVATIVE BEHAVIOR: INDONESIAN CONTEXT

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ABSTRACT
Today's learning has evolved to prepare the students to meet the demands of a very dynamic era, full of technological sophistication and very diverse information accessibility. Teachers' innovative behavior is a phenomenon shaped by contextual factors, e.g. personal, social, and environment context. This paper explores ways in which Indonesia circumstance – and the sociocultural norms within – play a substantial role in affecting teachers' innovative behaviour. This review can help administrators, practitioners, and policy makers gain greater contextualized insight into how teacher innovative behaviour may best be supported within particular cultures and regions. Theoretical and implications for further studies will be discussed.
Keywords: teachers' innovative behavior, elementary school teachers, learning goal orientation, work environment support

INTRODUCTION

Today's learning process has undergone a shift as a result of global social and economic change (Langworthy, Shear, & Means, 2010). The 21st-century learning essential skills often referred to as 4C, which includes critical thinking, communication, collaboration and creativity (The Partnership for 21st Century Learning, 2015; Tabary, 2015) are one example of why the school had to change. The learning goal has also evolved to prepare the students to meet the demands of a very dynamic era, full of technological sophistication and very diverse information accessibility.

Teachers nowadays are not only required to play a role and be responsible for the learning and teaching process, but at the same time, they also expected to be the content experts who master the subject matter. Furthermore, other teachers' roles and responsibilities are as facilitators, mentors, researchers, and innovators in the teaching and learning process (Faekah, Bush, & Nordin, 2018). These various roles made another challenge for teachers, and it surely not easy tasks to do. As of now, Indonesia gradually started to improve the education quality through all improvement efforts, e.g., wide-ranging education reforms, enhancements in teacher training standards, and substantial increases in education spending from the national budget. Nevertheless, under these circumstances, Indonesian teachers may have the urge to be innovative in their work context as the significant role to be part of improving the weaknesses in Indonesia's system and bring it up to the standards of other fast-developing countries in the ASEAN region.

Being innovative is the key so that an institution or organization can continue to survive in a very competitive time like today (Thurlings, Evers, & Vermeulen, 2015). The 21st-century learning environment must be created, and the teacher becomes the main actor who can support the success of the process. In line with the study conducted by Shear, Gallagher, and Patel (2011), one crucial aspect that can support the development of students to meet the demands of the 21st century is the innovative behavior of the teacher. That is, teachers (must) be skilled and adaptive in creating new, unique, and useful ideas that aim to form a conducive teaching and learning atmosphere.

Innovative work behavior of teachers (in this study later will be teachers' innovative behavior/TIB) defined as the sum of all physical and cognitive work activities carried out by teachers in their work context, either individually or in a teamwork, which includes a set of tasks that required the innovation tasks consisting opportunity exploration, idea generation, idea promotion, idea realization, and reflection (Messmann & Mulder, 2012; Thurlings, Evers & Vermeulen, 2015). IWB can be operationalized as the engagement in the five broad innovation tasks (Messmann & Mulder, 2012): *Opportunity exploration*, includes the changes in school structures, events in other organizations, and new insights in one's field of work. This task requires being attentive to the school environment and keeping up with current developments and occasions. *Idea generation* requires publicly addressing significant teacher-related problems, critically examining major beliefs, as well as communicating and discussing concepts for needed changes regarding the issues. *Idea promotion* involves

gaining colleagues and supervisors' support, keeping them up-to-date about the current process, consulting with key actors about approvals and resources, and disseminating ideas within and across the boundaries of teacher's work context. *Idea realization* involves developing a practical model or innovation examples, making others accustomed to the details, examining consequences for undesirable effects, and preparing its real-world application in the work context. *Reflection* covers evaluating the innovation progress, assessing activities and outcomes based on accomplishment criteria, inspecting one's progress during innovation development, and improving anticipatory action for the future.

PURPOSE

TIB is a phenomenon shaped not only by personal factors but also by contextual factors, such as environment and social context. This paper explores ways in which national circumstance – and the sociocultural norms within – play a substantial role in affecting TIB through the development of the proposed hypothesis. Such exploration can help administrators, teacher practitioners, and policy maker gain greater contextualized insight into how TIB may best be supported within particular cultures and regions. This work engages in a theoretical analysis and previous studies to cultivate greater understanding into TIB study in Indonesia.

SIMILAR CONSTRUCTS: TEACHERS' INNOVATIVE BEHAVIOR

It is better to differentiate the meaning of 'creative' and 'innovative,' for these two constructs might have been used interchangeably. There are so many perspectives on innovations, and this section needs to define the term "innovative," as the concept would lead to further discussion. In the Cambridge Dictionary, 'creative' illustrated as producing original and unusual ideas, something creative or is able to create, while 'innovative' means using new methods or ideas. Kwan, Leung, and Liou (2018) emphasize that creativity is part of innovation, and an innovation can be called 'innovation' when a creative idea is applied.

The use of creative and innovative concepts in this case often overlaps and can indeed be used interchangeably. The concept of creative work behavior is part of the discussion of innovative work behavior which states that creative behavior emphasizes the process of creating new and useful ideas, while innovative behavior includes the process of forming ideas to the implementing creative ideas. When examining the development of studies related to innovative work behavior, it can be seen that at the beginning of its development, the previous study in 'creativity at work' and 'innovative work behavior' treated as uni-dimensional constructs. It was only in the early 2000s that this study of innovative work behavior began to develop as a multi-dimensional construct so that all dimensions in it became crucial studies to be discussed (De Jong & Den Hartog, 2007; De Jong, Den Hartog & Zoetermeer, 2008).

In a nutshell, the teachers' innovative behavior discussed in this study will cover a multidimensional, dynamic, and context-bound construct.

Table 1: The similar construct of teachers' innovative behaviour

THE IMPORTANCE OF TEACHERS' INNOVATIVE BEHAVIOR IN INDONESIA

What is thought to be innovative is related to innovations as ideas, products or processes that are new and applicable for a particular individual, group, or organization and that are useful for the same of a different individual, group or organization (Messmannn & Mulder, 2011). Moreover, this definition also explains that innovation meaning depends on the unit of analysis. It also related to a particular context which the innovation be implemented and might lead to a significant change of practice. It is worth noted that the innovations that will be discussed in this paper are not limited only to originalities but can be actualized by existing ideas/products/processes as long as they are appropriate and novel for the particular implementation and contain a redefinition of underlying assumptions and goals (Messmannn & Mulder, 2011).

Moreover, innovation in education means something beyond what we are currently doing and make a unique idea which can help us to do our job differently. Similar to Serdyukov (2017) that explained the innovation in education are intended to increase productivity and learning efficiency and/or improve learning quality. This intention can appear in a newer pedagogic theory, methodological approach, teaching methods, instructional tool, learning process, or institutional structure that, when implemented, produces a significant change in teaching and learning, which leads to better student learning.

One of UNICEF's highest-profile activities in Indonesia related to the successful story of innovation implementation was a program called Creating Learning Communities for Children (CLCC) focusing basic education and gender equality in 78 districts of 15 provinces in Indonesia. The goal of the program was to

improve the primary schools' quality through the introduction of (1) effective School-based Management (SBM), (2) Active, Joyful, and Effective Learning (AJEL); and (3) the community participation. This program was concentrating on giving schools and communities for managing their resources and assisting them in using these resources more effectively. School and communities were taught to develop school plans that integrate all resources (from the government, the community and the CLCC program) and to do resources management transparently with an emphasis on refining quality of the teaching-learning process. The program had also included modules such as Life-Skills, Inclusive Education, and Child-Abuse Prevention into school education (UNICEF, 2010). Moreover, after the governmental regulations regarding decentralization and regional autonomy, each school now can create its own curriculum, and this is why TIB became crucial.

PREVIOUS STUDY: PREDICTING FACTORS OF TEACHERS' INNOVATIVE BEHAVIOR

Research on TIB is originated from the discussion of innovative work behavior at the beginning of the 21st century and initially focusing on creative behavior of employees, whose topic later developed into innovative work behavior on employees. Later research began to compare innovative work behavior in the context of non-educational and educational organizations which found different results. For now, it led to the development of further research topics focusing on the innovative behavior of teachers in the school environment (Bysted, 2013; Hammond, Neff, Farr, Schwall & Zhao, 2011; Thurlings, Evers & Vermeulen, 2015; Woods, Mustafa, Anderson, & Sayer, 2018). In the context of TIB, the learning environments are not only limited to in-class-activities, but it also involve out-of-class activity (in and out of the school itself). Teachers' related competencies are required for the accomplishment of the work tasks and also contain opportunities for actual work experiences. For that reason, teachers would need to create students' learning process as meaningful and encouraging as possible because it would have high relevance for the students' future jobs. Additionally, the learning environments would be related to students' necessities, interests, and personal context, in order to make the learning environments to be personally relevant and optimally challenging for students (Messmann & Mulder, 2010).

Many factors influence the innovative behavior of teachers. In general, the previous study on teachers' innovative behavior discusses the relevance of demographic, personal, and environmental aspects (Hammond et al., 2011; Thurlings et al., 2015). This grouping will follow the principle of the triadic reciprocal determinism theory of Bandura (1977), which explains how the behavior has reciprocal relationships that influence each other with the context of the individual and the environment. Bandura theory applied because the innovative behavior of the teacher is assumed to have a dynamic and contextual relationship with aspects of the individual and also the environment, so the discussion of this research is vital to see how the dynamics and interactions of the three elements (behavior, individuals and environment).

On personal aspects, curiosity, personality, perception of problems, motivation, and job satisfaction are predictors of TIB (Messmann & Mulder, 2011). Furthermore, work autonomy and mental involvement positively moderate the relationship of job satisfaction with the innovative behavior of teachers (Bysted, 2013). While in the discussion related to competence, it was found that educational competencies, technological competencies, and social competencies had a positive correlation with the innovative behavior of teachers (Zhu, Wang, Cai & Engels, 2013). How teachers perceived the impact of innovation (perceived impact) and their intrinsic motivation on the task influences how he performs innovative behavior (Messmann & Mulder, 2014). For aspects related to personality, proactive personality, affective conditions (positive and negative) and creative self-efficacy (Li, Liu, Liu & Wang, 2017), personality traits (openness and conscientiousness) influence TIB. Furthermore, satisfaction with meeting basic psychological needs, intrinsic motivation, and occupational self-efficacy (Klaeijsen, Vermeulen & Martens, 2018), as well as learning goal orientation and occupational self-efficacy (Runhaar et al., 2016), also influence TIB.

Regarding the environmental aspects, the study of innovative behavior of the teacher discusses the relationship with communication with colleagues, school leaders and students; activating resources, efforts to create work transparency, organizational class, student characteristics, school work scope (Messmann & Mulder, 2011). The personal network of teachers in schools turns out to influence how he performs the behavior of innovation (Messmann, Mulder & Palonen, 2011). Likewise, trust in innovation (Bysted, 2013), school environment and peer support (Zhu et al., 2013), perceptions of social support (Messmann & Mulder, 2014), principal empowering leadership, teacher exploration, and role conflict (Gkorezis, 2016), support creative learning and innovative teaching. Positive correlation to innovative behavior of teachers also found in teachers who have a clear understanding of the functions/tasks that must be implemented within the work context as a teacher (Runhaar et al., 2016).

Specifically, concerning demographics data, job tenure is one significant predictor of innovative behavior, but the results are still inconsistent whether it is positively or negatively correlated because differences country had different outcomes (Bysted, 2013; Woods et al., 2018). In the meta-analysis study, the level of teacher education and years of service did not correlate with the innovative behavior of the teacher (Hammond et al., 2011). The teacher's education period has a positive influence, while gender does not influence the innovative behavior of teachers (Runhaar et al., 2016). Other studies found age and gender influenced teachers' innovative behavior in the teaching-learning process (Bysted, 2013). Teaching experience under five years shows a positive correlation with innovative behavior carried out by teachers (Loogma, Kruusvall & Umarik, 2012; Zhu et al., 2013).

THE AREA TO BE EXPLORED IN THE TEACHERS' INNOVATIVE BEHAVIOR RESEARCH

TIB, as well as innovative work behaviour, is dynamic and contextual (Messmann & Mulder, 2012). The existence of connections that occur in the teacher as an individual cannot be separated from the environmental influence (e.g., school organizations, and social environment). To have a deeper understanding of how individual, social and environmental context relate to each other, consequently, we investigate the relationships between learning goal orientation (as the predictor of personal aspects), work environment support (as the moderating variable of environmental issues) and by considering demographics data (cultural background, tenure, and teaching experience).

Based on a previous study and investigation of the proposed development of follow-up studies, it is known that not many studies have discussed the indirect relationship, moderation and mediation of teachers' innovative behavior (Bysted, 2013; Zhu et al., 2013; Runhaar et al., 2016). This study will investigate the interaction between personal and environmental aspects of the teachers' innovative behavior, which will be proposed as a hypothesis in later study. One of the proposed variables is learning goal orientation, defined as the intention to develop one's competencies through learning new skills and through learning to complete new and more complex tasks (Vandewalle, 1997, 2018; Runhaar, 2008). These two studies indicated there was a positive effect of learning goal orientation on innovative behaviour. Why learning goal orientation is so important? Utilizing the causes of goal orientation in a school setting would be beneficial, especially to teachers, because it will promote the learning culture that positively supports teachers from keeping up with the challenges related to the work context (Vandewalle, Nerstad, & Dysvik, 2018). As in Indonesia, it would be crucial to investigate teachers' learning goal orientation in relation to their innovative behaviour.

Hypothesis 1: There is a positive association between teachers' learning goal orientation and innovative behaviour.

The suggestion of discussing the supporting factors and obstacles to TIB at the individual and school level as an organization (Thurlings et al., 2015; Zhu et al., 2013) increased the importance of this study. The condition of Indonesia, with its rich culture, is expected to influence teachers' perception and implementation of their innovative behavior. The influence of multi-cultural aspects, norms, and values embraced by one's understanding of something considered creative and innovative (Kwan, Leung, & Liou, 2018), made one's cultural background related to ethnicity will influence their innovative behaviour.

Hypothesis 2: There is a positive association between teachers' cultural background and innovative behaviour.

We would also examine other demographic aspects that are related to years of service (tenure), and teaching experience. These selective considerations are based on supporting and hindering factors at the individual level (Zhu et al., 2013; Thurlings et al., 2015) and inconsistent findings in the previous study related job tenure and TIB (Hammond, et al.,, 2011; Bysted, 2013; Woods, et al., 2017). More years in teaching experience may bring more knowledge on teaching-learning strategy especially in handling students' needs and diversity (Loogma, et al., 2012; Runhaar, 2008), but the findings in job tenure did not consistently correlate.

Hypothesis 3: Teachers with longer years of teaching experience tend to be more innovative, but it may not relate to their job tenure.

Teachers need support, direction, and feedback from others, as well as they, need to share and talk to each other. Furthermore, although colleagues or co-workers may exert a positive and the most significant influence of TIB, however students, school leaders, managers, and external agent also need to provide support by sharing and talking with other teachers (Klaeijsen, et al., 2017; Thurlings et al., 2015; Wang, Xue, & Su, 2010). For this reason, we choose variable work environment support (WES) as one of the moderating variables in this study.

Hypothesis 4: Work environment support moderates the relationships between learning goal orientation to teachers' innovative behaviour.

The need for contextual measurement tools by considering personal and environmental factors also need to be studied (Thurlings et al, 2015). Furthermore, the school context and the different systems applied in schools in

Indonesia can be important areas to investigate. The levels of education seemed related to the students' characteristics also contribute to TIB. Previous studies executed in teachers from secondary school level, vocational colleges and higher education (Messmann & Mulder, 2010; 2012; Gkorezis, 2015; Klaeijsen, et al., 2017; Loogma, et al., 2012; Runhaar, 2008; Vermeulen, Kreijns, van Buuren, & Van Acker, 2017), but not many are implemented in elementary school level.

Why elementary school teachers? As the foundation of students' lifelong learning process, elementary school becomes an essential level that a student must take. The OECD/ADB report (2015) mention the quality teaching practice and innovation are emerging in some primary schools. Moreover, good teachers made a significant difference in teacher-student relationships, so the students got motivated to engage in the learning process. While there is substantial progress in teaching practices, the challenge was to keep up the drive for continuous growth in quality across all provinces in line with the context for quality improvement set out in Indonesia's National Education Standards (OECD, 2015; Fasih, Afkar, & Tomlinson, 2017).

In the context of Indonesian elementary school teachers, the innovative behavior will be related to any ideas related to teaching-learning methods/products/processes (could be modified and not necessarily novel) that leads to optimizing students' learning. The school management, as in public and private school, and different school location may create a different organizational climate for teachers' innovative behavior (Chang, Chuang, & Bennington, 2011; Huang, 2004). We speculate this difference would positively lead to some impact on how teachers' willingness to be innovative in their work context.
Hypothesis 5: Teachers in public school has a different level of innovative behavior compared to teachers in private school due to the organizational climate in each school type.

CONCLUSION

This review proposed some hypothesis related to teachers' innovative behaviour of which the novelties are (1) its coverage of the dynamic and context-bound construct as the implications in Indonesia related the accomplishments of five innovation tasks become crucial; (2) study on elementary school teachers, while the previous study implemented in the level of secondary school, vocational school, or higher university; (3) this study proposed the interrelationship hypothesis of many variables to TIB, including the moderating effect of WES, type of school, and also the demographic data (years of teaching, cultural background, and tenure).

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