Teaching for What? - Investigating the Effect of Teacher's Pedagogical Knowledge on Elementary School Students' Life Satisfaction and Outcome

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Abstract Teachers' pedagogical knowledge determines learning environment for students. But teachers' pedagogical knowledge is not always congruent with their actual teaching practices. This research aimed at exploring effect of teachers' pedagogical knowledge on students' life satisfaction and outcome. Causal-comparative was used as research design. Data were drawn from 222 students of grade 4-6 and 23 elementary school teachers using questionnaire. Statistical analysis was conducted by employed MANOVA followed by ANOVA. This research finds that there is a significant effect of teachers' pedagogical knowledge on students' outcome but not on students' life satisfaction. Students who were taught by teachers with cognitive-constructivism gain the highest outcome, followed by students who were taught by social-cognitive teachers and behaviorism teachers. Although there are differences in students' life satisfaction based on teachers' pedagogical knowledge, the differences are not statistically significant. This research comes to the conclusion that learning theories held by teachers influence students' learning outcomes. This research calls for teachers to adjust their teaching practices according to students' characteristics. Teachers also have an option whether they want to teach for academic achievement or for students' satisfaction. Moreover, finding of present research indicates the need for further investigation to disentangle the links between teachers' instructional practices and students' life satisfaction.

Keywords Pedagogical Knowledge, Students' Life Satisfaction, Students' Well-being, Students' Outcome

1. Introduction

Pedagogical skill is one of the four skills required from professional teachers. Pedagogical skills guide teachers in creating effective learning environment for students. By mastering pedagogical skills, teachers should be able to understand the meaning of learning and instruction, acknowledge student characteristics, and be aware of their roles in instructional activities [1]. Teachers' pedagogical skills manifest in a set of activities known as teaching practices.

Teaching practices, to some extent, are determined by teachers' understanding of learning theories. There are at least three prominent learning theories; behaviorism, cognitive-constructivism, and social learning. Each learning theory has its own corresponding instructional activities when implemented in classroom practices. Instructional activities based on behaviorism will have different outlook when compared to cognitive-constructivism or social learning activities. In such a case, learning theories serve as a map for teachers in order to facilitate students for achieving instructional goals. In addition, different teaching practices will embrace

different leadership style of teacher and different relationship pattern between teachers and students. Teachers' leadership refers to teacher's ability to direct, guide, and influence students' behavior to achieve learning objectives [2].

Teachers thinking about how learning should be is not always congruent with their actual teaching practices. A study conducted with physics teachers reported that while teachers agree that learning should occur in student-centred manner, they still insist to hold tight controls over students group discussion [3]. The discrepancy between what teachers think and their actual teaching practices can be attributed to be the effect of school culture and traditional practices of teachers [4]. Variation among teacher's teaching practices and its corresponding leadership style eventually determines not only students' achievement but also students' well being.

Research on teaching practices, in Indonesian case, is focused mainly on the factors affecting it. Several research have been conducted puts teaching practices on dependent variable with teachers professional development through certification as its independent variables [5,6]. Another research to investigate teachers' performance in the implementation of professional learning community also uses the same perspective which placed teachers' pedagogical practices as impacted variable [7]. In sum, previous research indicated the need for research is placed teacher's pedagogical knowledge as independent variable and other factors such as students' outcome and well-being as dependent variables.

Moreover, investigation on children well being, particularly student's life satisfaction in a schooling domain, is still limited. As elaborated by Holder [8], research on well being is mostly focused on adults. Despite large desire for children happiness, attention to students' well being is relatively not as much as attention to adults' well being. Present research intends to investigate effect of teachers' pedagogical knowledge on students' well-being. This research directed by previous research which showed that as teachers exercise their pedagogical knowledge through the way they teach, students embrace typical feeling and thinking. How students think and feel is part of general well-being components. And students' well-being in term of their satisfaction and positive feeling is considered as determinant of student engagement [9]. To put specifically, aim of present research is to explore effect of teacher's pedagogical knowledge on students' life satisfaction and outcome.

2. Literature Review

2.1. Teachers' Pedagogical Knowledge

Teacher's pedagogical knowledge refers to teacher's understanding or acquisition to the specialized body of knowledge for teaching and creating effective learning

environment for all students. Teacher's pedagogical knowledge can be classified based on learning theories and concepts teachers have [10]. There are at least three prominent theories and concepts about learning, which are behaviorism, cognitive-constructivism, and social learning. Behaviorism is psychologist thought about the nature of human actions. There are several laws hold by behaviorist, among them are the law of exercise and the law of effect. In essence, the laws postulate that (human) actions are made as a response to environmental stimulus. In other word, human actions are generated by the conditions of external world [11]. Teachers with behaviorism believe tend to see students as reactive creatures that always respond to environmental stimuli. For behaviorism teachers, students should be given a set of stimulus in order to force them to learn. Furthermore, behaviorism teachers prefer reward and punishment as a means for disciplining and developing learning habits for students. Therefore direct instruction is more common for behaviorism teachers [12].

Not like behaviorism, cognitive-constructivism teachers see learning as knowledge construction. Knowledge construction can be seen as a process through which students connect their initial knowledge with the upcoming one. Process of knowledge construction involves some parts of the brain through attention, information processing in working memory, and information storing in long term memory. Pieces of information sent to working memories are coded and placed according to their connection with information been having by individual students. The result of knowledge construction process, then, is the meaning; a meaningful piece of knowledge that can be understood, retrieved, and used in solving problem by students. Accordingly, cognitive-constructivism teachers tend to prefer a more student-centered learning approach such as cooperative learning, inquiry learning, and problem-based learning [1].

Another prominent learning theories held by teachers is socio-cognitive. Socio-cognitive theories conceive learning as a social process in which a person gains knowledge and skills through observing others. Learning can occur either enactively or vicariously. Both types of learning involve the present of others in providing model and give direction for what should be done by students [11]. In short, socio-cognitive teachers assume that acquisition of behavior, knowledge, and skills comes from observation of others' behavior. As a result, modelling and learning through examples would be the best fit for students [12].

According to the concise description of the three learning theories above, we can differentiate the learning theories held by teachers by analyzing how they teach students. Behaviorism teachers usually use lecturer and punishment in their instructional activities. Cognitive-constructivism teachers opt to create a more cognitive challenging task for students so they can connect their initial knowledge with upcoming subject matter. And socio-cognitive teachers tend to stimulate students to imitate or perform procedural task according to models or

examples presented by teachers.

Teacher's mastery to learning theories serves as a map that guides teachers in carrying out a set of activities when they play their roles as an educator. Practically, teachers' pedagogical knowledge determines how teachers develop lesson plans, time tabling, preparing teaching strategies, managing classroom, questioning, and assessing students' outcome [13,14]. Based on what they know about effective learning, teachers design instructional activities and classroom environment to facilitate students learning. In implementation stage, how teachers build social relationship with students is also influenced by their knowledge about how students should behave when they are at learning processes. The rules and procedures created by teachers in order to build effective classroom climate are also a result of their understanding of the best way to learn. Finally, the procedures and tools used by teachers in assessing student's outcome can be attributed to teachers' understanding of the nature of learning experienced by students.

Teachers' pedagogical knowledge is a result of teacher's educational background and teaching experiences. When they were studying at university or college, teachers learned how to teach. Pedagogical knowledge is also reported to increase significantly in the first three year teaching experiences [14]. Teachers' abilities to translate their pedagogical knowledge into teaching practices are also influenced by school culture and other school environmental factors [4]. Therefore, teachers thinking about how learning should be is not always congruent with their actual teaching practices. A study conducted with physics teachers reported that while teachers agree that learning should occur in student-centred manner, teachers still insist to hold tight control over students group discussion [3].

Teacher's general pedagogical knowledge positively correlated with students' perceptions of effective classroom management, generic teaching methods/teacher clarity, and teacher-student relationship. Regression analysis revealed that teachers' general pedagogical knowledge is a significant predictor for instructional quality, even when controlled for teacher's education grades, teacher's personality, and teaching experiences [15]. In addition, different teaching practices will embrace different leadership styles and different relationship patterns between teachers and students. Teachers' leadership refers to teacher's ability to direct, guide, and influence students' behavior to achieve learning objectives [2]. In turn, teacher's pedagogical knowledge practices are linked to students' outcome in term of their knowledge, understanding, skill development, and values and attitudes [13].

2.2. Students' Well Being

Subjective well-being is a broad concept perceived by experts in different views. Holder [8] defines subjective

well-being as individuals' evaluation of their overall life. The same taste of definition also proposed in OECD's guideline for measuring well-being by underscoring that "subjective well-being is good mental state, including all of the various evaluations, positive or negative, that people make of their lives, and the affective reactions of people to their experiences" [16]. Another scholar highlights the different use of term well-being and subjective well-being. Whereas well-being includes objective indicator of being well such as being healthy and financially secure, subjective well-being is a more cognitive evaluation of life as a whole or affective experiences [17]. In this research, student's wellbeing is defined as students' subjective evaluation of their overall life. Evaluation of life involves cognitive appraisals directed to specific life aspects, such as school and family life. Cognitive appraisals pertain to students' perception of their lives based on their satisfaction. Accordingly, students' well-being can be assessed using students' life satisfaction to school life.

In general, subjective well-being consist of cognitive appraisals and affective state. Cognitive appraisals are individual's life evaluation, whereas affective element of subjective well-being reflected individual's emotional state in a period of time [8]. OECD [16] added eudaimonia as the third component of subjective well-being which refers to a sense of meaning and purpose in life. Based on three broad concepts described above, researchers develop their measurements on subjective well-being with different emphasis.

In present research, student's subjective well-being is measured through student's cognitive evaluation using Multidimensional Student's Life Satisfaction Scale (MSLSS). MSLSS is an instrument developed by Huebner to measure student's life satisfaction across family, peer, and school domain. MLSS is found to have high reliability (0.92) and its subscale reliability 0.78-0.85 [18]. MLSS also has promising concurrent and convergent validity (0.62 and 0.63 respectively [19].

2.3. Students' Outcome

Students' outcomes are the results of students learning in a given range of time. As a process, learning can be seen as "an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience" [11, p. 3]. Put in more detail, learning is assumed as occurring when there is a change in individual capacity to behave, the change is enduring, and there is a practice or experiences precede the change. All of the three criteria for learning to occur presented by Dale H. Schunk above represent a broad definition of learning outcome, which is the change of behavior or the capacity to behave after individual person passed a practice or experience.

Concluding that learning has been taken place leads us to investigate the type of learning outcomes. Learning

outcomes can be classified according to Bloom's taxonomy that divides learning outcome into three broad categories; cognitive, affective, and psychomotor. Much of the categories of learning outcomes previously mentioned can't be observed directly. So we need to assure learning outcomes by determining the method to assess learning. There are several methods to find out whether or not learning has occurred. Of many methods, test is the most prominent methods for assessing learning. In addition to test, as a researcher we can collect official school records about students' performances.

Learning is closely related to instruction. Whereas learning is a process of knowledge and skills acquisition, instruction is the way teachers use to facilitate students learning. Instruction is part of teachers' responsibilities to assure that learning goals can be achieved. There are three factors found to have a significant effect on students' outcomes; instructional strategies, classroom management, and curriculum design [20]. Effect of teachers on students outcomes is also vividly described by Hatti [21] by pointing out that expert teachers determine the level of learning students have, the willingness to take risk and enjoy challenging tasks, the attitude to respect others, and the development of critical and active citizens.

2.4. Links between Teachers' Pedagogical Knowledge and Students' Well-Being and Outcome

Teachers' pedagogical knowledge as ideal description of how learning occurs and how to teach effectively determines teaching practices. Teaching practices can be conceived as how teachers plan lessons, run instructional activities, manage classroom, and assess students outcome [13,14]. At the same time, teachers' pedagogical knowledge also manifests in how they direct students to achieve learning objectives. The way teachers guide students will eventually form patterns of relationship among students and between students and teachers [2]. Accumulation of lesson plans, instructional activities, classroom management, and assessment procedures employed by teachers determines how students think and feel. Evaluative components of how students' thinking and feeling will eventually determine their overall satisfaction with learning at school. Students' satisfaction with life conditions in school, at home, or in society is a cognitive aspect of their subjective well-being along with their affective aspect. Affective aspect of student well being frequently assumed as happiness, whereas its cognitive aspect frequently assumed as life satisfaction [18]. Life satisfaction was found as predictor of grade point average, even when other factors such as attitude and gender were controlled [22]. This conclusion can be explained by analyzing the important roles of subjective well-being as determinant of students' engagement and achievement [9]. The reason for this conclusion is that there is a mutual relationship between cognitive and emotional brain.

Positive moods were found to have effect on how brain processes and retrieves information from long term memories, generate creative ideas, and allocate cognitive resources in attention activities [23,24]. At the same time, cognitive learning is also influenced by students' emotional state by inviting the same taste information stored in memory [25]. At attention level, mood directs attention to particular objects which are assumed to generate the same mood. Furthermore, subjective well being is also found to affect students' motivation. A survey study found that students with high achievement are characterized by high preference on quality of learning [26]. Based on above explanation, this research hypothesizes for effect of teachers pedagogical knowledge on students' life satisfaction and academic outcome.

3. Methods

This research used causal-comparative design to assess the effect of teachers' pedagogical knowledge on students' life satisfaction and outcome. In causal-comparative research, investigators attempt to determine the cause or consequences of the differences between or among groups of individuals [27]. Causal-comparative research design is frequently used to attest to the link between nominal independent variable and interval or ratio dependent variable(s). In this research, teachers' pedagogical knowledge is a nominal independent variable because individual teacher can prefer to hold one of three learning theories. Each learning theories considered as an umbrella of several sets of postulates, laws, and principles. So there is no better-worse calculation regarding the position of the three learning theories. Treated differently, students' life satisfaction and outcome are placed as interval dependent variables, in which there is systematic levelling with higher scores mean higher quality of life satisfaction and outcome. Data were drawn from 222 students of grade 4-6 and 23 elementary school teachers in Mataram, Indonesia. Data on teachers' pedagogical knowledge were collected by questionnaires filled by elementary school teachers that are targeted to identify the preferences of teachers to one of three learning theories; behaviorism, cognitive-constructivism, and social learning theory. Questionnaire for identifying teachers' preferences is built on multiple choices packet consists of options representing the three learning theories for each item. The questionnaire was designed to capture what teachers will do in several class situations such as when they present learning material, developing a task for students, etc. Whereas data on student's life satisfaction were collected by questionnaire developed from Multidimensional Student's Life Satisfaction Scale (MSLSS) which was firstly created by E. Scout Huebner and his colleagues (2006) [19]. After being modified with reference to relevant schooling factors such as general school condition, teachers, learning material,

learning activities, and students' peer at school, items of MLSS were filled by 222 elementary school students. Each item provides 4 response options in Likert rating scale. Lastly, data on students' outcomes were drawn from schools' official records on students' achievement. First data analysis was conducted by performing MANOVA, which is frequently used by researchers to simultaneously assess the links and effect of one nominal independent variable on more than one interval or ratio dependent variables. In this research, one nominal independent variable is teacher's pedagogical knowledge and two interval dependent variables are student's life satisfaction and student's outcome [28]. If MANOVA statistically yields a significant result, the analysis will be proceeded by employing one way ANOVA technique to assess the effect of teachers' pedagogical knowledge on students' life satisfaction and outcome separately. All statistical calculations were conducted using SPSS 18.0 for windows.

4. Results

Hypothesis that teacher's pedagogical knowledge affects student's life satisfaction and outcome was tested using MANOVA test. The result is shown in table 1.

Table 1 shows that there is a significant multivariate effect of teacher's pedagogical knowledge on student's life satisfaction and outcome, Pillai's trace $F(4, 438) = 6.948$, $p < 0.01$, partial eta square = 0.060. Each dependent variable, then, was subjected to further ANOVA in order to show whether this finding is the same for each of dependent variable separately.

Result of ANOVA test is shown in table 2. ANOVA tests indicate that there is a significant difference between student's outcomes based on teacher's pedagogical knowledge $F(2, 219) = 11.038$, $p < 0.001$, but no significant differences for student's life satisfaction $F(2, 219) = 2.415$, $p > 0.05$.

Table 1. Result of MANOVA Test

Multivariate Tests ^c							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.994	16906.375 ^a	2.000	218.000	.000	.994
	Wilks' Lambda	.006	16906.375 ^a	2.000	218.000	.000	.994
	Hotelling's Trace	155.104	16906.375 ^a	2.000	218.000	.000	.994
	Roy's Largest Root	155.104	16906.375 ^a	2.000	218.000	.000	.994
Pedagogic	Pillai's Trace	.119	6.948	4.000	438.000	.000	.060
	Wilks' Lambda	.882	7.058 ^a	4.000	436.000	.000	.061
	Hotelling's Trace	.132	7.167	4.000	434.000	.000	.062
	Roy's Largest Root	.119	13.003 ^b	2.000	219.000	.000	.106

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the significance level.

c. Design: Intercept + Pedagogic

Table 2. ANOVA Table

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Outcome	1351.131 ^a	2	675.566	11.038	.000	.092
	life_satisfaction	60.445 ^b	2	30.223	2.415	.092	.022
Intercept	Outcome	1340158.246	1	1340158.246	21896.801	.000	.990
	life_satisfaction	207164.190	1	207164.190	16555.232	.000	.987
Pedagogic	Outcome	1351.131	2	675.566	11.038	.000	.092
	life_satisfaction	60.445	2	30.223	2.415	.092	.022
Error	Outcome	13403.540	219	61.203			
	life_satisfaction	2740.460	219	12.514			
Total	Outcome	1623979.000	222				
	life_satisfaction	253551.000	222				
Corrected Total	Outcome	14754.671	221				
	life_satisfaction	2800.905	221				

a. R Squared = .092 (Adjusted R Squared = .083)

b. R Squared = .022 (Adjusted R Squared = .013)

5. Discussion

5.1. Effect of Teachers' Pedagogical Knowledge on Students' Outcome

This research found that teachers' pedagogical knowledge significantly affects students' outcome (shown in figure 1 below). Students who taught by cognitive-constructivism teachers significantly outperform students' who taught by teachers' with social learning and behaviorism theories. And students who are taught by behaviorism teachers gain the lowest outcome in comparison with students who are taught by teachers with two other learning theories.

Finding of this research confirms previous research conclusion that teachers' pedagogical knowledge has an effect on students' outcome [13]. Pedagogical knowledge as learning theories held by teachers practically determines how they create learning environment for students. Those learning theories, when translated to actual instructional activities, will result in different learning conditions. Teachers with behaviorism believe tend to see students as reactive creatures that always respond to environmental stimuli. Therefore direct instruction is more common for behaviorism teachers [12]. Not like behaviorism teachers, cognitive-constructivism teachers see learning as knowledge construction. As a result, cognitive-constructivism teachers tend to prefer more student-centered approaches such as cooperative learning,

inquiry learning, and problem-based learning [1]. Another prominent learning theory held by teachers is socio-cognitive, which assumes that acquisition of behavior, knowledge, and skills comes from observation of others' behavior [11]. Accordingly, teachers with socio-cognitive belief tend to consider modelling and learning by examples as the best way to learn.

Teachers' pedagogical knowledge manifest in their lesson plan, time tabling, preparation of teaching strategies, classroom management, questioning skills, and assessment techniques and procedures [13,14]. Therefore, teachers' general pedagogical knowledge was reported by researchers as significant predictor for instructional quality, even when controlled for teacher's education grades, teachers' personality, and teaching experiences [15]. Furthermore, the quality of instruction will shape the pattern of interaction among students, between students and teachers, and between students and learning resources. As an interactive process, quality of interaction is the main component that determines student's engagement. As a result, the level of engagement resulting from quality of interaction in instructional activities created by teachers will eventually determine students' learning outcome. In short, teacher's general pedagogical knowledge positively correlated with students' perceptions of effective classroom management, generic teaching methods/teacher clarity, and teacher-student relationship, even when controlled for teacher's education grades, teacher's personality, and teaching experiences [15].

Figure 1. Comparison of Students' Outcome based on Teachers' Pedagogical Knowledge

5.2. Differences in Student'S Life Satisfaction Based on Teachers' Pedagogical Knowledge

In contrast to students' outcome, this research finds no significant differences among students' life satisfaction in term of learning theories held by teachers ($F(2, 219) = 2.415, p. > 0.05$). Previous studies have shown that instructional activities designed by teachers determine learning environment for students. Physical environment created by individual teacher with given learning theories would be different from those physical environment created by other teachers with different learning theories. The same things would also present in relation to social environment. Different learning theories held by teachers would yield different social interaction patterns. Those distinct conditions of learning environment are perceived differently by students. The perception students have to learning environments, eventually, determine their life satisfaction.

Present research found that there are no significant differences among students' life satisfaction in terms of teachers' pedagogical knowledge. What is important to underscore is that life satisfaction is subjective and context-based in nature. The subjectivity comes from internal perspective of students and values having by communities where students live in. Due to its subjectivity, the sources of satisfaction differ from one student to another; the same condition is perceived as satisfied by one individual student but not for other students. The subjectivity then is interwoven by the values of given community. Values give students a compass for determining what is important and make priorities. If the learning environments meet values and expectation of students, they will feel satisfied. Because there are three types of teachers' pedagogical knowledge, students' perception of learning environments will vary according to their values and expectation. Variation among students' perception, eventually, diminishes their satisfaction with learning condition.

In addition to the explanation described previously, we can analyze predictors of life satisfaction for students. Predictors of life satisfaction and well-being for students can be classified into internal and external student factors. Internal students factors are those factors that are inherently exist within individual. Such factors include emotional patterns and characters. Characters such as gratitude, persistence, spirituality, and positive affect are found as predictor of students' life satisfaction and well-being. Gratitude, defined as a sense of real-time emotional experience, such as thankfulness and joy in response to receiving a gift, is reported as significant predictor of school satisfaction for 4-6 grade students. This link is mediated by prosocial behavior [29]. At the same time, spirituality was also reported as significant predictor of happiness for elementary school children aged [30]. Along with those characters, motivational aspect was also

reported as significant predictor of students' well-being. Sense of goal orientation through task completion was reported as positive predictors of well-being after controlling for SES, ethnicity, and gender [31]. So it was clear that life satisfaction for elementary school students comes from more internal condition. The condition is deeply rooted in students' inner perceptions.

The links between life satisfaction and internal aspects of students were mediated by school condition. Support from teachers and other school personnel was found as a mediator for students' well-being [32]. Along with social support from adults in school, there are several characteristics of schools that are found to be "a prosperous land" for nurturing students' well-being. Those school characteristics are emphasizing on pro-social values, fostering a sense of belonging, and acknowledging strength in the diversity of students' characteristics [33]. Pro-social values such as respect, acceptance, and care are prerequisite conditions needed by students to feel safe and honored in schools. Such feeling eventually builds a sense of belonging of students which can serve as an engine to develop connectedness with school.

The way teachers treat students, inside and outside classroom reflected simultaneously learning theories they embrace and values they adhered to. How teachers treat students in classroom when instructional activities taking place will shape patterns of relationship between student and teacher, among students, and between students and learning resources. The patterns shaped then assessed by individual students against their values and expectation. The more congruent relationship patterns with students' values and expectation, the more satisfied students with their school living.

Finding of the present research which points to the minimum effect of teachers' pedagogical knowledge on students' life satisfaction can be seen as part of school factors that are assumed to have an effect on students' life satisfaction. In other words, it can be hypothesized that effect of teachers' pedagogical knowledge on students' life satisfaction is mediated by students' characteristics and school condition. As a mediated variable, teachers' pedagogical knowledge is a process through which students' life satisfaction can be pursued. By translating the learning theories, teachers can create conditions in which respect, care, and other positive value will be nurtured. The way teachers treat students is hypothesized as a factor that promotes or undermines students' life satisfaction. Hence, it is important for teachers to raise their awareness of the way they teach due to the roles of teaching practices as mediator of students' life satisfaction.

6. Conclusions

In conclusion, this research found that teachers' pedagogical knowledge has an effect on students'

academic outcome. Students' who were taught by teachers with given learning theories in mind and action resulted in given learning outcomes. But it is not the case for students' life satisfaction. This research finds no significant differences between students' life satisfaction based on learning theories held by teachers. Although rationally the latter finding rather distinct from previous research, it can be assumed that effect of teachers' pedagogical knowledge on students' life satisfaction is mediated by internal aspect of students and school environment.

Suggestion from this research can be directed to teachers as educational actor and researchers as educational expert. As educational actor, teachers are expected to adjust their pedagogical knowledge, in terms of learning theories they want to implement, to students' characteristics. In order to nurture prosocial behavior as expression of positive values, teachers are also expected to consider school environment. Moreover, this research indicates the need for further study in order to disentangle the links between teachers' instructional practices and students' life satisfaction.

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