Strengthening Students' Character as Authentic Learners:

Effects of Advanced School Leadership and Boost Learning

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Abstract—**Improving the 2013 national curriculum and strengthening character education in schools remains a challenge for Indonesia. The role of school leadership remains an incomplete issue. This study aims to examine the influence of school leadership on the reinforcement of character education and the character of students as authentic learners. This cross-sectional survey collected data from students, teachers and school principals from 28 randomly selected West Java junior high schools. Using the educational production function model, the study found that the quality of school leadership had an impact on teachers' ability to develop character-based learning and consequently on the growth of student characters as authentic learner. The results show that character education will be more successful with the guidance of the principal as an agent of change, whereby they are able to influence teachers to change their instructional behavior toward character-based learning.**

Keywords—authentic learner; school leadership; strengthening character education

I. INTRODUCTION

The various education policies initiated by the Government of Indonesia aims to improve more effective learning in schools so that students master knowledge, develop good attitudes and behaviors. If schools succeed in educating their students to become young citizens who master their knowledge, attitude and good behavior, it is expected to contribute in the formation of smart and good Indonesia citizens. However, that hope does not always come true. There are various facts that some Indonesian citizens, both from the upper society (the have) and the lower society (the have not), exhibiting bad behavior even in different temperaments. From the upper society shows the horse's loose stance, everything that prevents it from breaking down (for example the corruptors). From the lower society show the lack of energy, the road is very slow and difficult to push toward the finish (for example, street vendors selling on the sidewalks, public transportation drivers on public roads, and ilegal inhabitants on the banks of the river, which is very difficult to control) [1]. Like it or not, those who acting out of society's norms are the result of our educational practice.

Thus efforts to improve practice and improvement of education policy needs to be done continuously.

The latest educational reform in Indonesia is curriculum change. The curriculum which became known as the Curriculum 2013 was first implemented nationally in pioneering schools in several provinces in Indonesia and every year the number continues to be added. In line with these pilot activities, the government conducted (in-service) teacher training programs in a number of places in Indonesia. For three years of implementation, instead, no significant changes occurred in the school practice [2]. Although some teachers are technically trained, the application of the new curriculum is hampered by obstacles beyond technical issues. This study assumes that improvements in school leadership and management practices that greatly affect school reforms remain unnoticed.

This study reports the leadership profile of education in junior secondary schools in West Java province, Indonesia. However, in this article the principal instructional leadership profile is not reported as in the overall report [3]. The aims of this study are: first, to show how school leadership variables affect learning practices in schools; second, how the quality of teaching practice influences the character of the student as an authentic learner. To achieve these objectives, there are two research questions: first, what leadership approach and leadership skills enable teachers to promote the effectiveness of learning and help students overcome their learning difficulties? second, what kind of instructional approach has a stronger influence on character building students as authentic learners?

II. THEORETICAL FRAMEWORK

A. Successful Principals' Leadership

The leadership of the principal plays a very important role in bringing creative and innovative changes to the progress of the school he leads. The International Successful School Principalship Project (ISSPP) developed a successful school principal leadership model in Australia that encourages students in the school environment to focus on learning that is based on the values and vision of the school, understanding the school vision, carrying out transformational leadership elements, enhancing school capacity, self-capacity in four dimensions (personal, professional, organizational, and community), working in the context of the school environment in totality, basing every evaluation of scientific facts, constantly doing critical reflections for encourage change and

transformation of his school [4]. Another important dimension that will influence a principal's success in carrying out his/her leadership role as a school administrator is to develop a clear vision and direction of change, to understand and develop personnel, to redesign the school organization to be relevant to a defined vision, and to properly manage the teaching and learning program [5].

In the latest research developments of the last few years conducted by Day in the UK depicted eight dimensions that build the leadership success of the principal, namely he/she is able (1) to define the values and vision to build hope set the direction and build the confidence of the stakeholders; (2) establishing good conditions for quality teaching and learning processes; (3) restructure the school organization according to leadership and management needs and redesign the role of leadership and responsibility as an administrator, manager and leader; (4) conducting curriculum enrichment; (5) improving teacher quality; (6) improving the quality of learning; (7) establishing good cooperation internally with school members; and (8) building strong relationships with communities outside the school [6].

Another study of how a successful principal in their leadership has also been demonstrated by Hoog that principals should have strong self-confidence and have skills in improving their schools through changes in school structures and culture [7]. The other thing is that the principal should be able to build a good and democratic dialogue with theirs staff, showing a high degree of concern in his or her social relationships with staff and students. The research says it's important to work on a distance with teachers to not only challenge their ideas but also work well with them in realizing shared vision and goals. In this way, that is the way of awakening of faith, the dialogical climate and the credibility of his leadership. One of the respondents (teachers) reported in the report stated his judgment to the leadership of his principal, saying: "She was a batter leader, she discussed with the teachers before she took decisions. Further, she was a visible leader actively involved in the work with the student and teachers in the classroom". The research also points out interesting that good principals are also appreciated by their students. When students are asked to compare principals in schools that are used as research sites can be reflected by the students' opinions about the previous good headmaster figure in their eyes. In the research report it was written: "She stopped and talked to us in the corridor about different things, but the new one only sometimes says' hello".

The position of the principal does require a good capacity, not easy to become a principal considering the role that is quite complex. Sugrue mentions: "school leaders experience difficulty in deciding the balance between higher order tasks designed to improve staff, student and school performance (leadership), routine maintenance of present operations (management) and lower order duties (administration)" [8]. In this case the principal's position must play its role as a leader for his staff and students, he must also face his duties as a manager ensuring the operation of the school system well as well as administrative duties. How to play the role appropriate at school environment, that's one of the challenges to be faced?

Leithwood and Riehl introduced the term "instructional leadership" which focuses on improving teacher practice in the classroom to empower learning activities. Principals who use instructional-oriented leadership affect the progress of schools more strongly than those using managerial-oriented leadership" [9]. This is implemented because instructional-oriented leadership has a key role to empower all structures in the school organization and create the best environment for students to learn. the intention of building relational trust with staff, parents and students, teachers will be able to engage cooperation and support of parents and others in the local community. Using the instructional oriented approach, the school becomes an open climate condition for teachers, students and other stakeholders to learn and work together more productively [10].

There are two types of instructional leadership behaviors, consists of indirect instructional leadership aimed at optimizing learning through effective leadership in managing the environment; and direct instructional leadership that provides guidance and support for teachers to improve the quality of student learning. The influence of leadership behavior varies depending on the school level. In high school, principals are more likely to focus on indirect instructional leadership than in primary school, school principals who are improving in performance exhibit more direct leadership behaviors more often than principals from other schools [11]. This suggests that direct instructional leadership seems to affect the school's progress more strongly than indirect instructional leadership.

B. Teacher Competence

Point of view of this study that the quality of learning is a spectrum that spans from conventional approaches to student-centered approaches. Conventional learning derived from behaviorist understandings assumes that knowledge becomes a kind of inheritable commodity from person to person [12], students are assumed to be consumers of knowledge [13], and hence they are seen as passive recipients of information without having to consider their need to participate actively in the learning process [14]. It appears that this model is a non-participatory learning where students are rarely invited to ask critical questions in the learning process to solve problems [14, 12, 15, 16]. The PISA study reported that more than one out of four 15-year-old students in 20 out of 28 countries thought schools were a place where they did not want to go, and in almost half the majority of students agree that schools are where they feel bored [17]. Therefore, a moving approach to student-centered learning becomes one of the most important choices for achieving quality learning.

One of learning approach which can motivate students to think critically in problem-solving activities is Project Based Learning (PBL). Well-designed PBLs will encourage students to learn that lead to the new concepts [18] and learning will take place realistically and explicitly [14]. With the context of authentic and realistic issues for the students to learn, the teacher as a learning facilitator can stimulate student motivation to the desired level of learning [19]. Thus teachers should be able to develop and sustain students' learning abilities and help them become motivated learners of all time [14]. Yew and Goh also suggests that PBLs should be widely

adopted in various fields and educational contexts to promote critical thinking and problem solving in authentic learning situations [20].

III. METHOD

The study used a cross-sectional survey, collecting data on variables related to principals, teachers and students as conceptually related respondents. Instruments are designed in the form of principal questionnaires, teacher questionnaires, and structured student questionnaires. This study uses individual students as the final sampling unit, and consequently becomes the unit of analysis where the level of cause-effect analysis is used. Therefore, this research can be generalized to junior high school students in West Java as the target population.

Sampling is designed in three levels; Selection of districts/cities randomly. Selection of purposif schools in selected districts / cities based on administrative status, and random selection of classes to disseminate the model where all students are selected as the final sampling unit. Potential sampling errors may be greater in choosing schools from each selected district because the selection is purposive. But other options are randomly designed. There are seven randomly selected districts/cities, namely Garut regency, Indramayu regency, Purwakarta regency, Bogor regency, Bandung city, Sukabumi city, and Depok city. From each sample district/city selected two pairs of schools, each public and private schools.

This study aims to examine the influence of school leadership factors on the quality of learning and the character of students as authentic learners. The character of the student as a measure of the quality of education is a function of various factors. Some factors can be measured in part that directly affect others while others are indirect. This analysis is based on the conceptual and analytical framework as shown in figure 1.
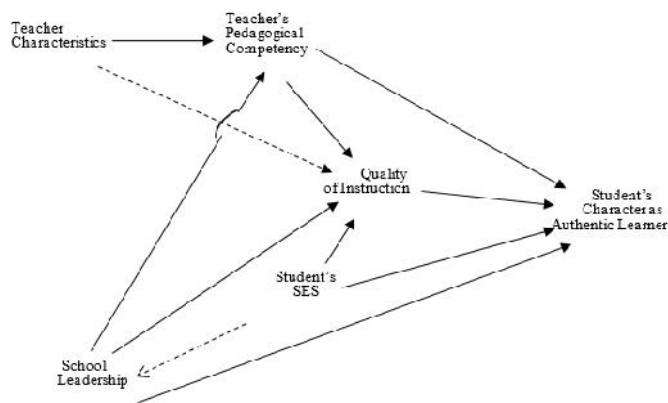

Fig. 1.   Conceptual and analytical framework.

This model assumes that student learning outcomes - which in this study are characterized as authentic learners - are dominated by the quality of learning [21, 22]. Other studies also consistently tested the strongest co-variance effect of socioeconomic status of parents (SES) as the strongest variable on student learning outcomes [23, 24]. This study also assumes that school leadership has a direct influence on teacher

competence and teacher competence in fact has a direct influence on the quality of learning.

IV. RESULT AND DISCUSSION

A. School Leadership and Teacher Competence

The analysis of the production function model using multiple linear regression shows the variables in the model contributed significant variance from the measured criteria. The first model measures the effect of school leadership and teacher characteristics on pedagogic competencies contributing R-Square of 0.78. This indicates that all of the included variables account for nearly 79% of the variance of teacher pedagogic competency scores (Table I). R Squares generated from this model is the highest among production function studies in many countries since the 1970s by Fuller analysis [25] and Heyneman and Loxley [26].

The magnitude of this variance, the biggest effect on pedagogic competence is given by variables that measure school leadership and teacher coaching. School leadership variables include good school management (= .922, p = .001), frequent supervision by the principal (= .762, p = .001), and reward strategies for outstanding teachers (=. 478, p = .000). This analysis suggests that school leaders should preferably not implement a punitive strategy for underperforming teachers, since this leadership variable negatively affects teacher pedagogic competence (= -.727, p = .000). The teacher coaching variables that have a positive influence on pedagogic competence are teacher participation in curriculum training (= .163, p = .000) and classroom action research (= .438, p = .000). However, content training has a negative effect (= -.154, p = .000). It just shows that content training will not be enough in just a very short time. Professional competence will increase significantly through training followed by self-learning activities. In this context, the most important role of school leadership is to create a school as a fun learning ground for all citizens of the school and even the community.

TABLE I.   EFFECTS OF SCHOOL LEADERSHIP AND TEACHER CHARACTERISTICS ON PEDAGOGIC COMPETENCIES ($R2 = 78.7\%$)

No. Predictors	Beta Weight ( )	t	sig.
(Constant)		22.871	.000
A. School Leadership			
1. School management	.922	17.915	.000
2. Principal supervision	.762	21.605	.000
3. Giving rewards to outstanding teachers	.478	7.264	.000
4. The penalty for less-performing teachers	-.727	-16.695	.000
B. Teacher Characteristics			
5. Teaching experience	.886	24.613	.000
6. Degree in education	.839	21.378	.000
7. Teacher certification	.132	3.195	.001
8. Teacher age	.064	1.622	.105
9. Prior educational attainment	-.393	-17.242	.000
10. LPTK status (Public, Private)	-.293	6.340	.001
11. Number of teaching hours	-.096	-2.743	.001
12. Participation in curriculum training	.163	5.566	.000
13. Participation in content training	-.154	-4.552	.000
14. Participation in PTK training	.438	13.865	.000

Other teacher variables that have a positive effect on pedagogic competence are teaching experience (= .886, p = .000), recent education (= .839, p = .000), and teacher certification (= .064, p =. 000). These three points out the accumulation of lifelong learning in their careers. So it can be understood that all three have a significant effect on pedagogic competence. However, the teacher's initial education negatively affects pedagogic competence characterized by negative beta weights (= - 393, p = .001). This implies that the higher their initial education before being appointed teachers, the lower their average score on pedagogic competency tests. This is reasonable because by the time they first graduate, there are no pedagogical standards required by the certification system that started after the birth of the Indonesian Teachers and Lecturers Act in 2005.

Another important thing to note is that there are two remaining variables that negatively affect pedagogic competence, ie teacher education institutions: public or private

(= -.293, p = .001) and teaching load (= -293, p = .001). This can be explained in two ways. First, teachers who graduate from private LPTKs are on average less competent than those who graduate from the country's LPTK. This implies that the quality of LPTKs is a prerequisite for growing teachers who are highly competent and accomplished. Secondly, the overload of teaching hours seems to be ineffective for teachers to improve the required competencies.

B. The Effect of School Leadership on Quality of Learning

The second model involves four factors that are considered to have a strong effect on the quality of learning. Factors are school leadership, teacher characteristics, pedagogical competence, and student parent's SES. The analysis results are shown in Table II.

TABLE II.   EFFECTS OF SCHOOL LEADERSHIP AND TEACHER CHARACTERISTICS ON PEDAGOGIC COMPETENCIES (R^2 = 78.7%)

	R	*R Square*	*Adjusted R Square*	Change Statistics		
A. Criterion: Student Centered Teaching				*R Square Cha*	*F Cha*	*Sig. F Cha*
No. PREDICTOR						
1. Participatory school planning	.522	.272	.271	.272	346.996	.000
2. Incentive strategy	.641	.411	.408	.068	106.235	.000
3. Conducive school to learning	.650	.423	.419	.012	18.478	.000
2. Prior educational attainment	.553	.306	.305	.034	45.421	.000
3. LPTK status (Public, Private)	.586	.343	.341	.037	52.444	.000
6. Teacher pedagogic competence	.657	.431	.428	.009	14.521	.000
7. Teacher certification	.670	.449	.445	.018	30.035	.000
8. Teaching experience	.672	.452	.447	.003	4.446	.035
B. Criterion: Teacher Centered Teaching						
No. PREDICTOR						
1. Teaching experience	.408	.167	.166	.167	192.443	.000
2. Penalty strategy	.470	.221	.219	.054	67.237	.000
3. Principal supervision	.702	.493	.489	.057	107.419	.000
4. Participatory school planning	.660	.436	.432	.064	108.607	.000
5. LPTK status (Public, Private)	.610	.372	.369	.090	137.858	.000
6. Incentive strategy	.531	.282	.279	.031	40.868	.000
7. Teacher pedagogic competence	.501	.251	.249	.030	38.758	.000
8. Conducive school to learning	.727	.528	.524	.035	71.071	.000

In this study, the quality of learning is conceptualized in two ways. First, student-centered learning (Student Centered Teaching), a learning process that enables students to achieve optimal learning levels. In this study used Project Based Learning (Project Based Learning). Second, teacher centered learning (Teacher Centered Teaching), a traditional learning approach dominated by teachers' lectures in conveying subject matter.

The same regression model is used by involving eight effect variables on each of the learning quality measures, ie student-centered learning approach and teacher-centered learning approach. The results of the analysis show that the main predictors in both approaches of learning are different. The student-centered learning approach is influenced primarily by three major predictors: participatory school planning (R2-Cha = 27.2%, p = .001), incentive strategies for outstanding teachers (R2-Cha = 6.8%, p = .001), and school management

conducive to learning (R2-Cha = 1.2%, p = .001). On the other hand, teacher-centered learning approaches are generally influenced by three management variables believed to be bureaucratic, ie seniority (teacher teaching experience) (R2-Cha = 16.7%, p = .001), punishment strategies for teacher performance (R2-Cha = 5.4%, p = .001), and supervision of the principal (R2-Cha = 5.7%, p = .001).

These findings suggest that teacher competence is only a necessary but not sufficient condition to improve the quality of learning. To be sufficient, teachers need management support and school leadership based on performance rather than bureaucratic ones. This will create an incentive system to increase teachers' motivation to improve their competence and create a highly conducive environment to encourage the growth of lifelong learning capacity for teachers as a key indicator of modern education.

Other findings are shown in Table II (B) which shows that bureaucratic leadership environments encourage more traditional learning processes, such as listening to teacher lectures, recording classroom content, memorizing concepts, and practicing test questions. This bureaucratic school leadership emphasizes the existence of both internal and external school controls, requiring teachers to be obedient and at the same time to avoid punishment from the leader. School leadership environments like this can be considered successful when the quality of education is measured by the value of academic tests. However, this will not contribute in the long run to create a professional climate of teachers to work productively as one of the actual measures of educational quality.

C. Effect of Learning Approach for Student Character

Evidence is needed to find out whether empirically centered student learning is more effectively used to develop the character of the student as an authentic learner than teacher-centered learning. To prove this, we need an analytical model to examine the effect of each learning approach on student character as shown in the model (Figure 1).

In the model, the dependent variable is measured to find out the extent to which two composite factors, ie student-centered learning approach and teacher-centered learning approach affect the character of the student as an authentic learner. The dependent variable is the character of the student as an authentic learner, ie the student who has learning independence, has the ability to communicate, solve problems, work in team, and think high level [27]. Based on the model, the analysis results are shown in Table III which includes three composite factors. First, the socio-economic status of students using parental education indicators, parent's work and attending pre-school education (kindergarten). Second, a student-centered learning approach as a combination of Project Citizen steps covering the process of identifying problems, selecting problems for classroom study materials, collecting field data and information, developing classroom portfolios, presenting class portfolios in hearing forums and reflecting on learning experiences [28]. Third, teacher-centered learning approach as a combination of lectures, memorization, reading, classroom practice, and test frequency.

TABLE III. EFFECT OF STUDENT SOCIO-ECONOMIC STATUS, STUDENT-CENTERED LEARNING APPROACH, AND TEACHER-CENTERED LEARNING APPROACH TO STUDENT CHARACTER AS AUTHENTIC LEARNER

No. Predictor	B	S.E.	Beta Weight ( )	t	Sig.
(Constant)	26.351	2.559		10.296	.000
1. Student Socioeconomic Status	1.414	.113	.393	12.530	.001
2. Student-centered Learning	.358	.059	.188	6.052	.001
3. Teaching-centered Learning	-.173	.038	-.143	-4.554	.001

The results of this third model analysis noted an interesting thing, the socioeconomic status of students has given the co-variance effect that is significant and the highest in the character of students as authentic learners (= .393, p = .001). The effects of the other two factors are assumed as ceteris paribus (all other things being equal) because the socioeconomic status effects of students remain constant.

Another interesting point is the comparison of the influence of the two learning approaches on the character of the student as an authentic learner. On the one hand, a student-centered approach affects the character of the student as an authentic learner much stronger (= .188, p = .001) than the teacher-centered learning approach. This means that the more teachers facilitate the students to actively learn, for example working in teams to solve problems, collecting field data and information, working on class portfolios, and presenting class portfolios before the jury in the public hearings, will be more conducive to coaching efforts character of the student as an authentic learner. On the other hand, the effect of the conventional learning approach, the teacher-centered learning approach is not only lower but also negatively oriented (= -.143, p = .000) to the student's character as an authentic learner. That is, the more frequent the use of conventional learning activities by teachers, will increasingly not conducive to fostering the character of students as an authentic learner. It is important, therefore, to note that the success of curriculum reform is largely determined by the school leadership ability to prevent teachers from massively using conventional learning, and to encourage the use of student-centered learning approaches.

V. CONCLUSION

It has long been known that Indonesian schools are experienced with bureaucratic leadership practices. The leadership of this type of school has encouraged conventional learning practices and this has been a major source of poor quality of education. The principal is in fact not ready to exercise professional leadership, since the regulation places the principal's position as a teacher with the additional task of carrying out administrative duties. There is really no reason for the Government to rely too heavily on the role of principal set on paper for successful school reform as expected. This implies that school reform in Indonesia will be successful through the reconceptualization of the principal as a professional change agent and not as a bureaucratic apparatus.

Subject to the influence of the socioeconomic status of students beyond the influence of learning variables implies that to achieve effective schooling needs to take into account student family factors. This is consistent with the results of a number of studies on learning achievement, for example since Coleman in the 1960s, Heyneman in the 1980s, and Suryadi in the 1990s showed that student socioeconomic status variables become important predictors of improving learning achievement. The implication is that for successful school reform is no longer dependent only on Government initiatives. As Indonesian society moves toward the dominant middle class [29], the roles of student families and other external stakeholders will be greater. The study found that the magnitude of the correlation of the learning approach used against the character of the students as an authentic learner

varies and depends on the socioeconomic status of the students. That is, in the coming years, the variety of school quality will be greater related to the differences in the socio-economic capacity of the family. Therefore, successful school reform will be determined by the leadership of the principal who is able to create a close relationship between school and family.

Final conclusion, as noted earlier, this study found that a student-centered approach to learning has a powerful effect on the development of student character as an authentic learner. This approach enables students to learn at an optimal level and obtain the most valuable treasure as Delor's Report "Learning: The Treasure Within" shows, to know, to do something, to be something), and to live together. This will be accomplished if and only if school reform is targeted to build effective, effective participatory and merit principal leadership that encourages the creation of a conducive school environment for learning [30]. Only with such leadership will teachers be facilitated and supported to manage student-centered learning approaches.

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