

The Dynamical System of Character Education in Indonesia

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Abstract

There has been growing interest in Indonesia's character education, especially after The Presidential Regulation no. 87 of 2017 on Strengthening Character Education and The 2003 National Education System Law. Indonesia is predicted will be a great industrial country in 2045. A stable education system is essential to build a nation and accelerate Indonesia's development to have political, social and economic advancements. Making changes of character education is essential, but is also bound and fraught to have challenges, supporters, detractors, and obstacles. The education system is becoming more complex, interconnected and dynamic because of the surroundings of constant changes and uncertainties. The system thinking (causal loop diagram) is used in this paper to describe, model and analyze these complex issues in terms of the processes, information, organizational boundaries and strategies of Character Education in Indonesia. This paper shows it is necessary to observe the whole system as a cyclic feedback loop, not just observe variables as separate things independently and linearly. The education system is not linear, it is cyclical. Finally, goals be well defined, actors, be rational and know their parts, threats, and challenges are anticipated and the 'best' solution be chosen in order to implement character education quickly and efficiently.

Keywords: Character Education, System Thinking, Development and Policy Evaluation

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Introduction

Indonesia has the vision of the Indonesia Golden Generation 2045 on their 100th independence day. In 2045, Indonesia is predicted will be a great industrial country in the world. The vision is also to build a nation and accelerate Indonesia's development to have political, social and economic advancements. There are 4 pillars of Indonesia's vision of 2045: (1) human resource development and mastery of science and technology, (2) sustainable economic development, (3) equitable development, and (4) national security and governance (Bappenas, 2018) Indonesia is predicted to be ranked 6th as the country with the most population in the world in 2050 with a population of 321 million people or 319 million people in 2045 (United Nations, 2015 and BPS, 2018). Indonesia has a "demographic bonus" with 63 million young people (citizens aged 18-30 years) or 26 percent of the total population (238 million) in 2014 (UNFPA, 2014).

Character quality is one aspect of building the 2045 Golden Generation, accompanied by abilities in basic literacy aspects and 21st century competencies. The people of Indonesia needs to have these skills to support this vision to face the changing trend and global competition. The common skills that needed for success in the 21st century are creativity and innovation, critical thinking and problem solving, communication, collaboration, information management, effective use of technology, career and life skills, and cultural awareness (Beers, 2018). In fact, Indonesia ranks 113th out of 188 countries with HDI score of 0.689 or as ranked 5th out of 10 ASEAN countries (UNDP, 2016). A low HDI score will affect the nation's competitiveness in global competition. Indonesia also faces problems of intolerance, acts of violence, drugs, criminal acts, and other youth problems. The development of a stable education system is very important to do as an investment in the quality of human resources to improve economic growth, reduce poverty and unemployment. Indonesia translates the resolution of this problem through a policy of strengthening character education in Presidential Regulation No. 87 of 2017 and Ministry Regulation on strengthening character education in formal school No. 20 of 2018.

A policy has seven important characteristic: (1) policy involves government, (2) policy is a stated intention or commitment, (3) policy involves hypothesizing, (4) policy is any action that brings about an effect or outcome, (5) Policy is a response to an issue or situation, (6) policy is about the choices that are made, and (7) policy involves mediating the values and interest (Dredge & Jenkins, 2007). A policy model can help us understand how these seven characteristics correlate in a policy. Tasrif (2014) said that the model, qualified and capable to be used as a means of analysis to formulate (design) the policy, must be a vehicle to find effective ways, and means of interventions in a system (phenomenon). In through this intervention, the desired system behavior can be obtained (Tasrif, 2014). Therefore, I will discuss the phenomenon's structure of character education in Indonesia. First, how the elements constructing the character education in Indonesia?. Second, how the interactions among this element in strengthening character education in Indonesia?.

Character Education

In the context of The National Movement on Mental Revolution, Indonesia tries to use education as a means of shaping the character and personality of students by

integrating character education in the curriculum and school learning system (Permendikbud No 20 Tahun 2018). Education is a cornerstone of economic and social development; primary education is its foundation (Lockheed & Verspoor, 1991). In June 2018, 9 months after “Presidential Regulation no. 87 of 2017 on Strengthening Character Education” Ministry of Education determines “Ministerial Regulation no. 20 of 2018 on Strengthening Character Education In Formal Education Unit” from primary to secondary education. Strengthening character education is a continuation and revitalization of the national character education movement that began in 2010. The education of children must nurture the creativity that will determine their ability to survive and flourish in a chaotic world (Jackson, Oliver, Shaw, & Wisdom, 2006). Character education is an educational program in schools to strengthen the character of students through harmonization of the heart (ethics and spiritual), sense (aesthetic), thought (literacy and enumeration) and sports (kinesthetic) in accordance with the philosophy of Pancasila (Peraturan Presiden No 87 Tahun 2017).

The regulation stated that character values are the result of the actualization of the Pancasila, the 3 pillars of the national mental revolution movement policy, local wisdom of Indonesia and future challenges. The value of character education that must be integrated in the school curriculum consists of 18 character values (Permendikbud No 20 Tahun 2018), namely: (1) Religious, (2) Honest, (3) Tolerance, (4) Discipline, (5) Hard Work, (6) Creative, (7) Independent, (8) Democratic, (9) Curiosity, (10) Sense of Pride, (11) Patriotism, (12) Respect for Achievement, (13) Friendship/ Communicative, (14) Peace-loving, (15) Fond of Reading, (16) Caring Environment, (17) Social Care, and (20) Responsibility (Peraturan Presiden No 87 Tahun 2017 and Permendikbud No 20 Tahun 2018). The 18 values is the embodiment of 5 main values, namely religiosity, nationalism, independence, cooperation (gotong royong) and integrity that is integrated into the curriculum. These values are connected and reflex by their ability with one’s self, others, nationality, god, and environmental awareness. The school needs to apply these 18 values in school. Character education is carried out through class- based, school-based and community-based management.

Method

Problems are things or states that someone thinks are worthy of attention or investigation (Jackson, Oliver, Shaw, & Wisdom, 2006). Problems might be visualized from two very different perspectives: (1) sees a problem as an issue that needs to be resolved or rectified, and (2) there is an opportunity for something different (Jackson, Oliver, Shaw, & Wisdom, 2006). Structure in a social phenomenon consists of two structures, (1) physical structure formed by the accumulation (stock) and flow network of people, goods, energy, and materials, and (2) decision-making structure formed by the accumulation (stock) and information flow network used by actors (human) in the system those describe the rules of their decision-making processes (Tasrif, 2014).

The system thinking is used in this paper to describe, model and analyze these complex issues in terms of the processes, information, organizational boundaries and strategies of Character Education in Indonesia. System thinking is a methodology for studying and managing complex feedback systems, such as one finds in business or

other social systems and system dynamics is used to take the additional step of constructing computer simulation models (Sterman, 2000). The feedback loop represents the circularly link cause and effect of the variables, not the statistical correlation relationships. The cause-effect link of a pair of variables, in a phenomenon, should be viewed with a concept that the influence of other variables to the considered effect variable does not exist (Richardson, Alexander, & Pugh, 1981). A causal diagram consists of variables connected by arrows denoting the causal influences among the variables. Each causal link is assigned a polarity, either positive (+) or negative (-) to indicate how the dependent variable changes when the independent variable changes (Sterman, 2000). There are 2 types of feedback loops, positive feedback loop (growth), and negative feedback loop (goal-seeking) (Richardson, Alexander, & Pugh, 1981). The important loops are highlighted by a loop identifier which shows whether the loop is a positive (reinforcement) or negative (balancing) feedback (Sterman, 2000). In this discussion, I explained about balancing and reinforcing loop that affects this phenomenon. After that, I presented the main causal loop diagram of character education in Indonesia.

Discussion

In this discussion, there are 4 main elements related to character education as a phenomenon. First, related to school focus and policies on character education. Second, related to proper teaching and learning strategies of character education. Third, related to character competencies of students in school. Fourth, family and community engagement.

School Focus and Policies on Character Education

Educational policies on character education (The Presidential Regulation No 07 of 2017, Ministry Regulation No 20 of 2018 and other relevant national or regional policies) increase the school's focus on character education. This focus will reduce the gap of character based on character competencies of student in school. These character of student are the potential that we called as good human resources for the Indonesia Golden Generation in 2045 that support by Indonesia National Movement on Mental Revolution (Figure 1). The first loop is balancing-loop or goal-seeking of character education, that is how to make students have character competencies following the expectations and goals of the school. School must be able to use the available resources in school to reduce the gap.

Collaboration between school committee and principal is essential to keep an eye on the agenda in its path which will influence the role of the school principal in management related to the implementation of character education or what we called as school-based management (Figure 2). School-based management provides authority and responsibility to the school principal, teachers, and school supervisors and education staff together with school committees according to the needs and context of the education unit (Permendikbud No 20 Tahun 2018). School committee is an independent institution consisting of parents/ guardians of students, school communities, and community leaders or public figure who care about education (Permendikbud No 75 Tahun 2016).

Partnerships among schools to complement strategies in applying characters need to be done (Figure 3). Partnership will help the schools to hand in hand create the foundation about the goals to be achieved, how to achieve and how to measure this achievement. The problems faced by the school can also be solved by resolutions that other schools have done, learning by others problems or addressing school problems together. Good partnership increase demand for strengthening character values and education. Teacher competencies of teaching and learning strategies play an essential role in the implementation of character in students learning process. Teacher competency will increase the number of teachers concerning about character education, but this is not automatic. In many cases, teachers need to experience the importance of character education through training and mentoring from the education office. The proportion of training and mentoring depends on the policy itself (Figure 4). The training also can be done by organization that related to education.

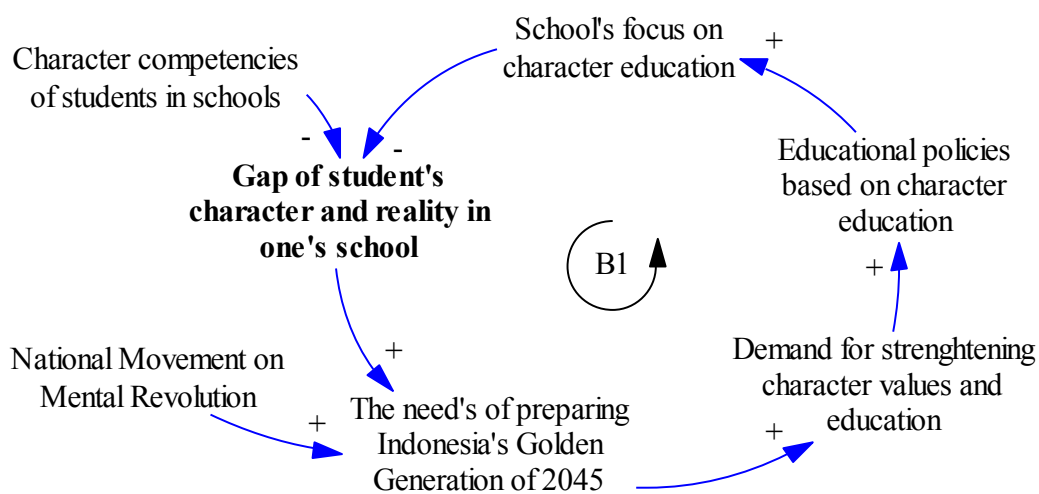


Figure 1: Balancing loop of reducing the gap of student's character and reality in school

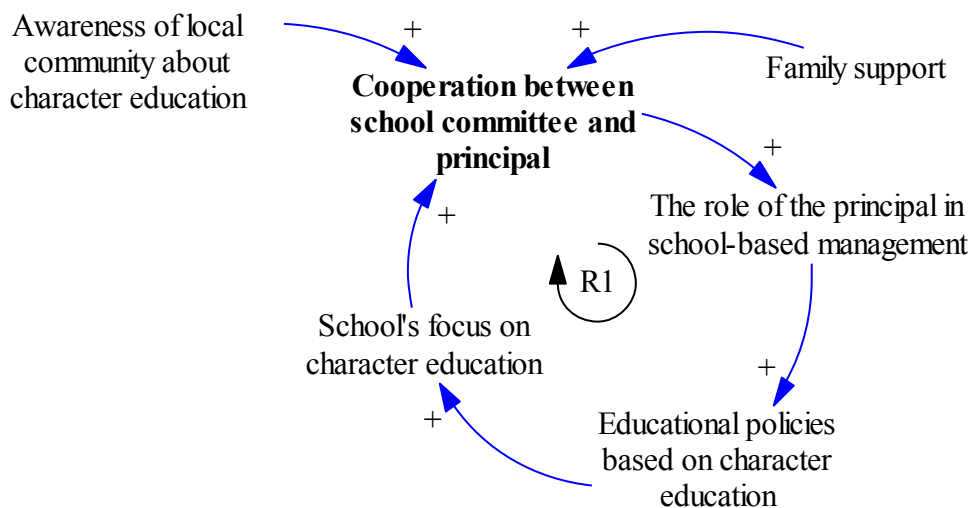


Figure 2: Reinforcing loop of cooperation between school committee and principal

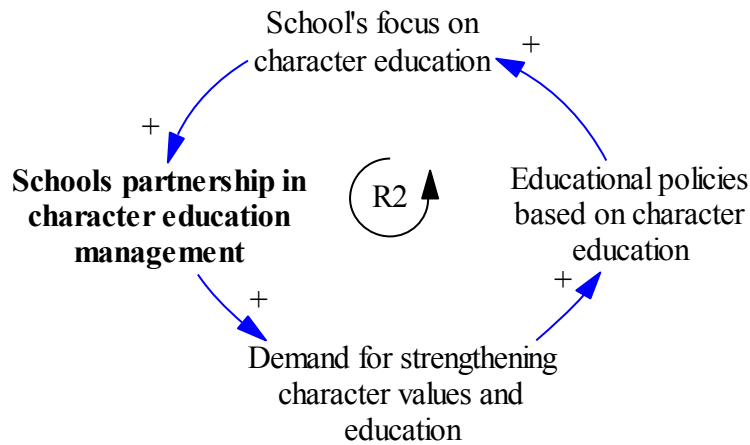


Figure 3: Reinforcing loop of schools partnership in character education management

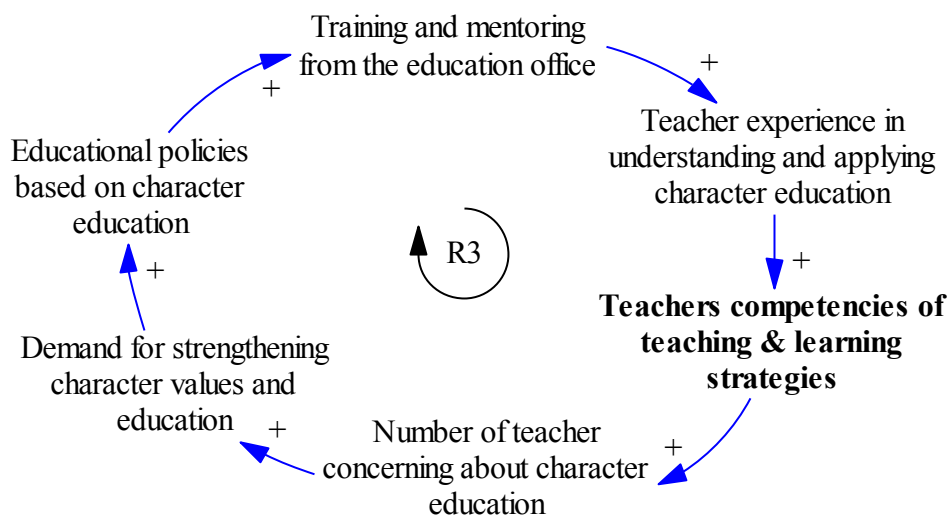


Figure 4: Reinforcing loop of teachers competencies and educational policies

Proper Teaching and Learning Process

Proper teaching and learning process always deal with development and adjustment to keep up with changes and needs. The culture-lag between what is needed in the present and what the schools offer has always existed (Jackson, Oliver, Shaw, & Wisdom, 2006). One of the most challenging aspects of teaching is to generate goals and processes that are in reach of the students but not beyond their grasp (Joyce, Weil, & Calhoun, 2011). There are 7 reinforcing loops about proper teaching and learning process. The process of learning must be able to facilitate students to be able to ask questions, and not just how to answer questions. The intensity of character education in class also dependent on character content volume in learning time at school. We must not forget that there are also lessons that must be delivered related to science and other material, time is crucial. The content needs to be integrated in teaching and learning process in class (Figure 5). If the proportion of character content volume in class is definite, the teacher will have the motivation to achieve or complete the learning plan. Teacher motivation for applying strategies also depends on their experience in understanding and applying character education. Motivation plays a critical role in guiding student behavior (Ambrose, Bridges, DiPietro, Lovett, &

Norman, 2010). The critical role of motivation is also happening in teachers to apply these strategies. The experience support teacher to understand why students need character and lead them to easily apply the strategies (Figure 6).

The teacher experience increases teacher competencies in teaching and learning. If they have the experience and competencies, they know the path and tools to apply these strategies. Just like before, the education office can intervene in teacher experience with training and mentoring (Figure 7). Indonesia is a diverse country with different cultures, races, and religions. What is important is that their local knowledge and characteristic are part of the education agenda of Indonesia. One way is from co-curricular activities related to local culture activities, such as religious activities in Bali, the use of traditional school uniform (batik) in Yogyakarta, traditional games and dances. Co-curricular activities are activities related to the subject of local content determined by the local government following the provisions of the law (Permendikbud No 20 Tahun 2018). Thematic teaching and learning are also can be done by learning in a particular context or providing a context for character values, such as real-life scenario to encourage tolerance (Figure 8).

Curriculum is a set of plans and also arrangements for the learning purpose, content, and also teaching materials and the method used as a guideline in the implementation of activities in the learning process. Troublesome assumptions exist in curriculum design; that knowledge can be owned and distributed; that all individuals learn in the same way as receivers of knowledge; that the time it takes someone to learn something is important; that error is negative, revealing one's lack of intelligence; and that knowledge is owned and disseminated according to the rules of individual academic disciplines (Cullen, Michael, & Hill, 2012). These assumptions must be broken to make sure that education is applied properly. Character education is not just about the change in one lesson activity, but throughout the curriculum, even in all school activities. The school must consider what material to teach, how best to teach it, and how to ensure that students what is being taught (Davis, 2009). In the learning process, students must be able to do 4 main activities: watching, thinking, doing, and feeling (Saeed, 1997). Curriculum becomes a guideline to teacher about strategies and activities plan in class. The proper curriculum will help teacher to able to determine assessments of the character values of students in a class (Figure 9).

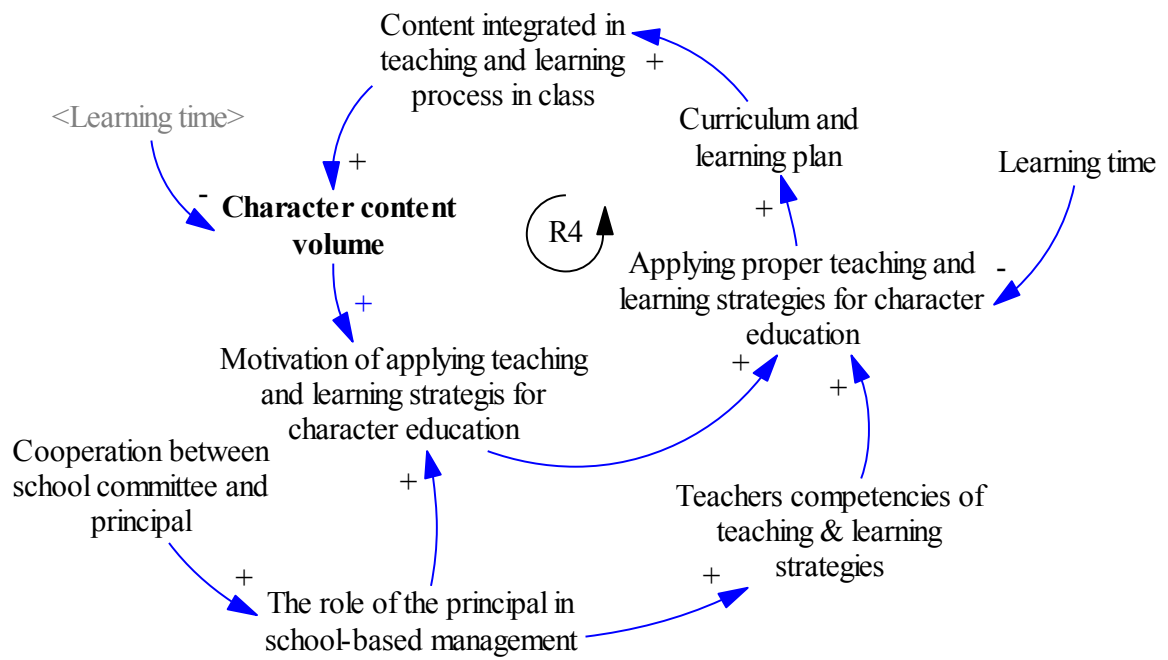


Figure 5: Reinforcing loop of character content volume in school's learning process

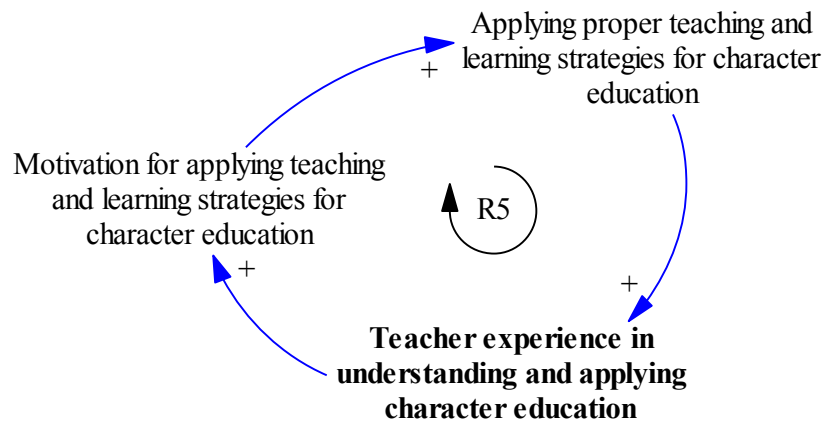


Figure 6: Reinforcing loop of teacher experience of understanding and applying character education

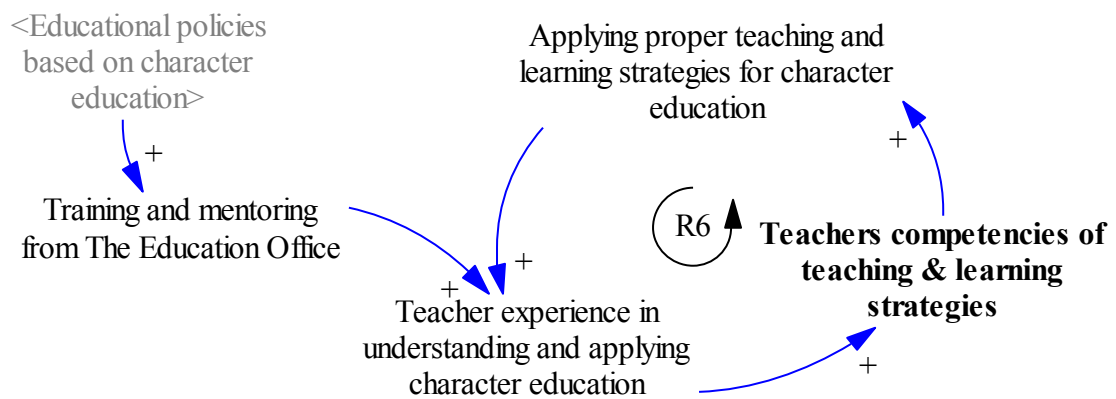


Figure 7: Reinforcing loop of teacher competencies of teaching & learning strategies

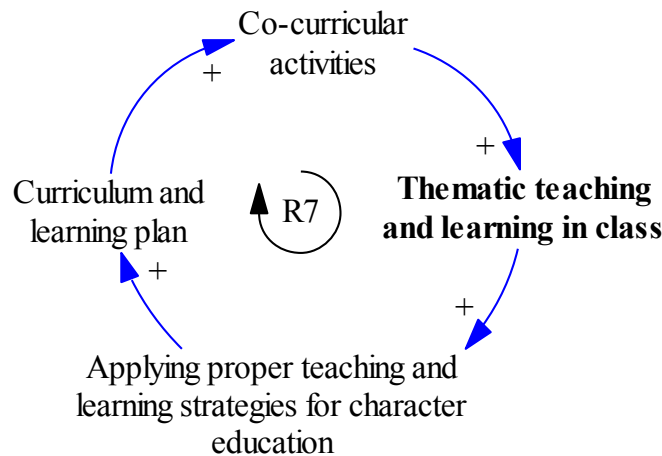


Figure 8: Reinforcing Loop of Thematic teaching and learning in class

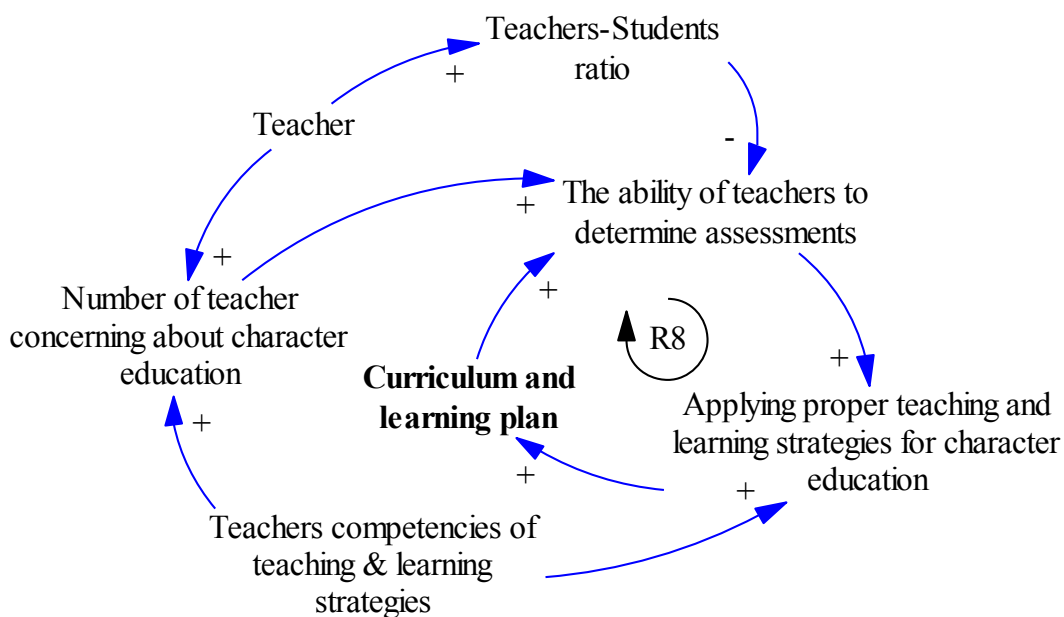


Figure 9: Reinforcing Loop of curriculum and learning plan

We cannot be focused on student learning if we are not checking to see if learning is taking place (Cullen, Michael, & Hill, 2012). Learning outcomes, instructional activities, and assessments of student learning are consistent and reinforce each other (Davis, 2009). The level of ease of assessment depends on the comprehensive curriculum design and teacher ability (Figure 10). Measures of learning can be of many kinds, from school grades, content analysis of student work, up to curriculum relevant tests (Joyce, Weil, & Calhoun, 2011). The proper teaching and learning strategies also depend on the facilities and learning time. The less school time, the less time to learn in class and the less of content volume can be taught. The use of facilities in schools will also increase, not to mention the number of students who are not balanced with the number of facilities.

The ratio of teacher-student in Indonesia is 1:16. In some schools, the teacher-student ratio is 1:35 or even more. The student-teacher ratio reflects the average number of students faced by a teacher (whether the teacher is eligible to teach or not) at a certain level of education (Subdit Statistik Pendidikan dan Kesejahteraan Sosial, 2017). The assessment help school to understand if the values of character education have owned

by student or not. The ability of teachers to determine assessments practices vary among teachers, so the school principal and educational office can train and mentoring teacher about how to assess and what criteria that need to be asses. This assessment ability is linear with the content and outcomes that will establish by character education. The monitoring and evaluation will help the school to manage the implementation next year (Figure 11). Applying appropriate teaching and learning strategies for character education is not just the individual's efforts in the classroom. Teachers need to connect with students, school principals, school administrators, schools commit, community, accompanied by training and mentoring from the education office to determine how to accomplish its purpose.

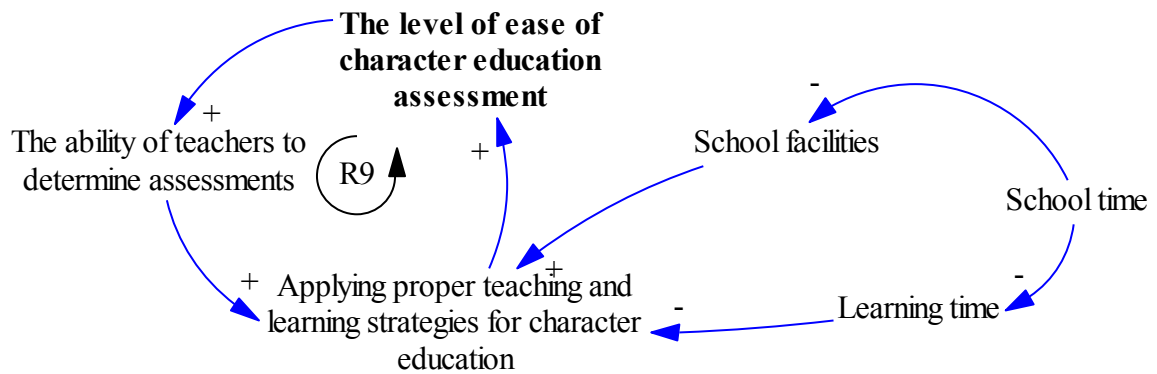


Figure 10: Reinforcing Loop of The level of ease of character education assessment

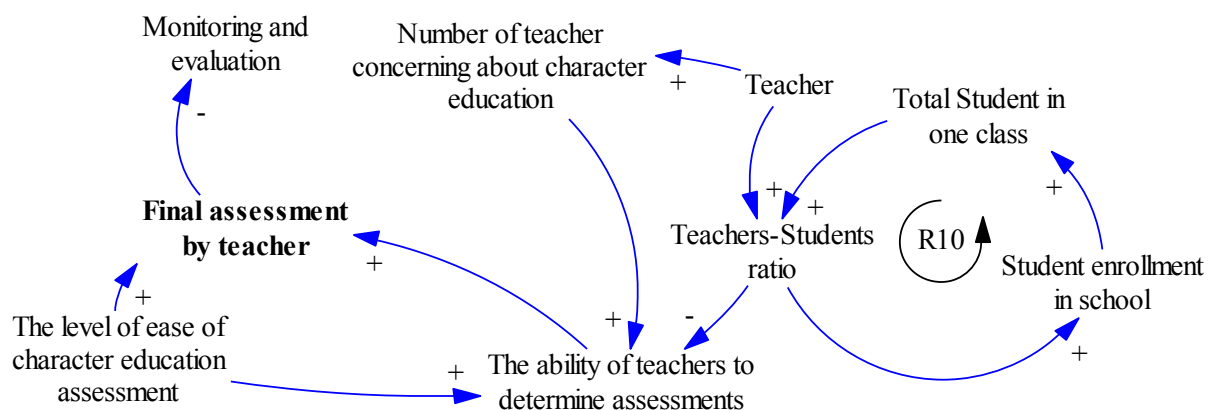


Figure 11: Reinforcing Loop of Teacher-Students ratio and Final Assessment

school based on the quality of teaching and expectations by the family related to their children development in school. Trust is a critical component of collaborative partnerships between families and teachers, and trusting relationship begins with teachers who are committed to and respectful of all families (Grand & Ray, 2013). When the trust and awareness is established, family will increase the family support in every school event involvement, such as their role in school committee. Indonesia is a diverse and complex society with different race, culture, socio-economic, religion, we can see this diversity on the reason why we have 18 character values to implement in school. This diversity also happens in the family background of students (Figure 13).

Implementation of character education also involving and empowering the community as learning resources (Permendikbud No 20 Tahun 2018). The community can volunteer in school activities or become part of the school committee. Family and community members can also be asked to participate in developing standards and curriculum for the local school district (Grand & Ray, 2013). Unlike family involvement, the community doesn't have much interest in school activities if it's not related to their children or their children not in that school. Partnerships with the community need to be done to increase awareness about character education. This can be done by principals, administrators, and academic staff, teachers, districts, education offices, or organizations related to education (Figure 14). Existing loops will be interrelated to create an environment that supports the implementation of character education and becomes a unified whole as a causal loop diagram of character education in Indonesia (Figure 15).

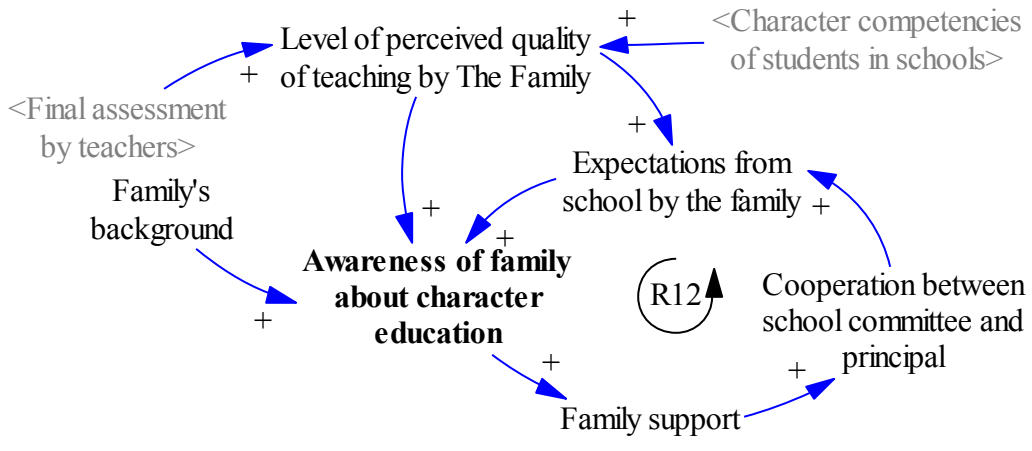


Figure 13: Reinforcing Loop of Family Engagement

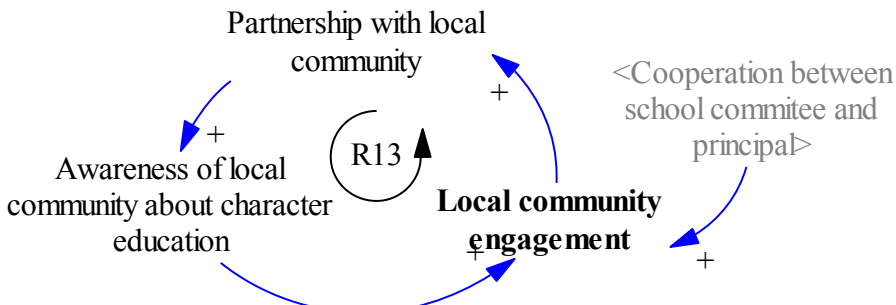


Figure 14: Reinforcing Loop of Local Community Engagement

Causal Loop Diagram of Character Education in Indonesia

Finally, from the part to the whole we can understand that the implementation is not just about the policies or just teaching and learning strategies. What students learn from the learning process in school must support student ability and competencies in real life, especially with the 18 character values. Applying Character education is not just the individual's efforts in the classroom. Education involves all agents (people, organization, networks, and other collaborative associations) continually interacting and influencing each other in ways that cannot be conceived or explained in detail, but from which new forms of organization, new relationship, and patterns of behavior emerge. (Jackson, Oliver, Shaw, & Wisdom, 2006). The implementation meets the problems, such as less support from family, lack of facilities, human resources problem, even the learning process and methods. Character education faces a lot of difficulties to be applied, but it is still possible.

Every aspects, actors, and action have their role to make sure the vision of Golden Generation of Indonesia in 2045. Every actor needs to develop awareness and engage with everyone about character education. The government as the policymakers must include every actor, not just the teachers and schools committee to make sure that character education is correctly done. Teachers in school must have the ability to manage the teaching and learning process from the curriculum plan until final assessment. The Principal must have good management (class-based, school-based and community-based management) (Permendikbud No 20 Tahun 2018). Family and community involvement must be done (Figure 15). It is very clear about existing regulations, the government does not explicitly involve students in existing regulations. Students are still objects, while subjects consist of principals, teachers, and academic staff, community and government. Students should be the subject as well as the object of activity and consider interactions and factors that influence their character and personality in school.



Figure 15: Causal Loop Diagram of Character Education in Indonesia

Conclusion

We can see elements related to the implementation of character education from the causal loop with 4 major elements, (1) school focus and policies on character education, (2) appropriate teaching and learning strategies, (3) character competencies of the student, and (4) family and community engagement. Every actor needs to develop awareness and engage with everyone. The government as the policymakers, teachers, the principal, academic staff, families, communities, and students. Character education is about change throughout the curriculum, even in all school activities because all elements are inseparable. Character education is an interaction of every element that takes times and not constant changes. If the interactions of each element done correctly, the gap of student's character and reality in one's school will reduce. The improvement of student character will indicate the achievement of good education and character education, so students can apply this character in real life. Further questions are how and what is the right model of teaching and learning, when or how long it takes to achieve or see the result of character education and is every teacher have the same opportunity to implement the character values in their lesson materials?

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