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The Role of Leadership in Education for Sustainable Development Curriculum Reform in Indonesian Higher Education

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Introduction to Sustainable Development Leadership and
Strategies in Higher Education
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CHAPTER 9

THE ROLE OF LEADERSHIP IN EDUCATION FOR SUSTAINABLE DEVELOPMENT CURRICULUM REFORM IN INDONESIAN HIGHER EDUCATION

Adriadi Novawan and Siti Aisyiyah

ABSTRACT

This chapter presents a reflective study on the role of leadership in curriculum changes in Indonesian higher education. It was based on case studies carried out in 2012 and 2014 at Politeknik Negeri Jember (POLIJE), a vocational higher education institution (HEI) that was selected by the Ministry of Research, Technology and Higher Education of Indonesia as a pilot project implementation of the newly established Indonesian Qualification Framework. It describes the theoretical and contextual background of the study that was inseparable with the growing concern on globalization, internationalization, and democratization of HEIs worldwide. Meanwhile, curriculum changes since 1961 demonstrated the dynamic of the curriculum, which signified either the development of national education or instabilities in the individual HEIs. These signify the breadth, depth, and the contexts of ESD curriculum development in Indonesian HEIs, which confronted the leaders or managers with the complexity. This requires effective functions related to the change strategy and shared roles between the top and middle leaders in coping with the leadership, managerial, and academic issues within an interdisciplinary setting. In this top-down change, the intention to adopt the transformational leadership model

was obvious in the level of top leaders, while in the middle leadership, practices were less hierarchical. The leaders both in the top and the middle levels had complemented to each other with low attention on the notion of organizational learning. In light of sustainable education, the notion of organizational learning gives the foundation for successful change and sustainable organizational development. It is because the best performance of an institution will strongly be influenced by the quality of investment in the capacity development of both the leaders and staff.

Keywords: curriculum reform; change meaning; education for sustainable development (ESD); higher education; leadership and management; national qualification framework; organizational learning; top-down and bottom-up strategy

INTRODUCTION

Education for Sustainable Development (ESD) plays an important role in reaching the sustainable development goals (UNESCO, 2014, 2017). However, there have been multifaceted challenges encountered by the educational institutions worldwide in their efforts of developing the curriculum and pedagogy that are engaging for ESD. One of the challenges is the scarcity of strong leadership in curriculum reform. Within the notion of ESD, sustainable curriculum including its pedagogical practices needs to change dynamically to accommodate the present needs and to anticipate future demands. ESD curriculum and pedagogy require strong, dynamic, and sensitive leadership, not only to catch and anticipate what is happening and what will happen outside the educational institution, but also to handle the process inside it.

This chapter presents a reflective study on the role of leadership in curriculum changes in Indonesian higher education. It is based on case studies carried out in 2012 and 2014 at Politeknik Negeri Jember (POLIJE), a vocational higher education institution (HEI) selected by the Ministry of Research, Technology and Higher Education of Indonesia as a pilot project implementation of the newly established Indonesian Qualification Framework (IQF). The IQF is a national innovation that highlights the government commitment to improving the quality of national education and to promote ESD which so far has little been studied to inform current and future curriculum policy and practice. This study is intended to fill the void by addressing how curriculum reform is implemented and what is the role of leadership.

THEORETICAL AND CONTEXTUAL BACKGROUND

Managing ESD in higher education is inseparable with the growing concern of globalization and internationalization trends that have somewhat influenced the educational policy and practices in countries. Globalization is understood as a

context in which there is rapid development of interconnectedness and interdependence among people, institutions, societies, and nations which increase interaction and integration of political, economic, social, technological, ecological (PESTE) forces and systems (Blessinger & Anchan, 2015). Internationalization is one of the responses to it which signifies the worldwide challenges and opportunities for the HEIs (Leask, 2013). Within this, the HEIs, including those in Indonesia, are challenged by the growing worldwide trends including the high level of competition, the decrease in government funding and sources, the greater scrutiny, the emphasis on student-rights, and the rapid spread on Information Communication Technology (Scott, 2003). Furthermore, the notion of internationalization is sharpened by the democratic theory of higher education which gives a robust perspective on the importance of HEIs in providing the people with experience and exercise of political, economic, social, and personal fulfillment and empowerment that enhance personal capacity and agency (Blessinger & Anchan, 2015).

Along with these challenges, ESD has been overwhelmingly promoted in HEIs in countries offering an overlapped and interconnected direction of reforms. In Asian countries, such as those in Indonesia, where the dichotomy between government and the non-government university is applied, those challenges are intricate for the leaders in non-government universities especially in terms of financial sources. While government/state universities have to cope with greater administrative scrutiny and a top-down policy. On the other hand, ESD requires HEIs to transform the institution as a whole (Leicht, Heiss, & Byun, 2018). Based on the conceptual work of Findler, Schönherr, Lozano, Reider, and Martinuzzi (2019), HEIs can have significant direct and indirect impacts on sustainable development through educational programs, research, outreach, campus operations, and campus experiences. Actions in these areas can be conceptualized and manifested through the development of ESD curriculum and the reorientation of academic staffs' capacity building (Biasutti, Makrakis, Concina, & Frate, 2018), including teacher training and education (Lourenço, 2018). These are fundamental actions to be undertaken in order to promote and stimulate the development of knowledge and competencies related to the five ESD areas: people, planet, prosperity, peace, and partnership (Leicht et al., 2018). As stated by UNESCO, ESD must be holistic and transformational which addresses learning content and outcomes, pedagogy, and the learning environment (UNESCO, 2014).

Considering the breadth and the depth of ESD curriculum development, while the nature of activities related to HEIs' curriculum and pedagogy are context-dependent (Leask, 2013), any changes confront the leaders with the complexity that requires effective leadership functions to facilitate successful changes. In this context, leadership is required to influence people, to encourage achievements, and to create new leaders (Kotter, 2012) within the unprecedented contexts of higher education. Especially, the leadership functions related to the followers' acceptance and commitment are found paramount for giving impacts on the achievement of the expected purposes (Hassan, Gallear, & Sivarajah, 2018).

This is normative but meaningful in the actual practices and multifaceted in execution against the particular situations, especially in Asian higher education that is characterized by the huge diversity of ethnics, beliefs, cultures, languages, and others including academic preferences (Kitamura, 2017). Nevertheless, the recent implementation of ESD in countries has not been followed with significant development of ESD leadership capacity among the academic staffs involved in the implementation (Mulà et al., 2017). Therefore, while ESD has hotly been discussed elsewhere, there is a valid concern about the effectiveness of leadership capacity development of ESD actors.

In Indonesia, the central government initiated intensive and global research and projects related to curriculum and pedagogy in response to the rapid and massive changes of the global world. Tracing back to the 2003 agendas, within the insignificant democratization practice, the Ministry of Education and Culture (MOEC) of Indonesia began a national project of qualification framework development; a framework that is intended to integrate the educational outcomes by using a convergent reference. However, the fundamental for this had been put forward since 1961, when the MOEC of Indonesia applied the Pancasila National Curriculum.

Pancasila is the five moral principles that guide the national life. The curriculum basically had strong moral underpinnings for national life and development, nevertheless, it was too generic to cope with the educational theory, practice, and challenges, and required more academic contextualization to result in the engaging curriculum and pedagogy. After learning from the past, following the mainstream educational theories, the MOEC launched the Competence-based Curriculum in 2003. This curriculum was refined and significantly improved in 2005 and 2010. At the same time, the MOEC of Indonesia was developing a qualification framework for convergent reference for all education levels and types. Finally, in 2012 based on the Presidential Decree, the IQF was officially launched. Since then, curriculum development in HEIs in Indonesia has to refer to the IQF. In 2014, the National Standard of Higher Education (NSHE) was refined and finalized to accompany the IQF. This framework manages higher education more holistically, mechanically, and profoundly, including the pedagogical and assessment processes. Thus, until currently, HE curriculum has to refer to these: IQF and NSHE.

The overall changes since 1961 demonstrate the dynamic of curriculum changes in the Indonesian HEIs. It is like two sides of a coin; on one side, it signifies the development of national education following the development of age, nevertheless, on the other side, it may demonstrate instabilities in the individual HEIs. National reforms like these were multilayered, tended to be form-oriented to satisfy the policy, and were hardly followed with coherent changes, which penetrated the grassroots level. To cope with this, the role of leadership is fundamentally crucial as a catalyst of change that will be impacted coherently in all levels.

As one of the universities in Indonesia, POLIJE was challenged to reform the curriculum based on IQF and NSHE. Particularly, it was one of 82 universities that were selected to get involved in the national piloting project of curriculum

reform (DGHE of Indonesian Republic, 2012). POLIJE was a leading university that offered vocational and professional education in the fields of food, agriculture, information technology, health, agribusiness management, and language. In doing its mission, it offered 20 programs of study comprising of 9 undergraduate diploma programs, 10 bachelor programs, and 1 postgraduate program (master).

In the 2012 curriculum reform, the top leaders (a director/rector and three vice directors/rectors) of the university had successfully mobilized 21 middle leaders (deans, head of departments) and 49 curriculum developers (lecturers). In 2014, there were 77 academic staffs involved in the project including 4 top leaders and 20 middle leaders. At the beginning of the project, most of the personnel involved in the curriculum reform was unfamiliar with the notion of the IQF as a reference for the curriculum reform. It took time and energy to adapt on it. Therefore, the challenge faced by this HEI was huge and multifaceted involving change strategy and the effectiveness of top and middle leaders in coping with the leadership, managerial, and academic issues within an interdisciplinary setting.

TOP-DOWN AND BOTTOM-UP REFORM

Changes undertaken in any educational institutions involve making decisions toward whether to use a bottom-up (decentralized) or top-down (centralized) strategy. The case of curriculum reform undertaken by POLIJE was particularly encouraged by the central government to reform the curriculum on the basis of the IQF and NSHE.

The need for curriculum reform had been socialized to top university leaders by deploying the emergent issues on globalization and ESD. Afterwards, a number of universities, including POLIJE, were selected to conduct reforms based on the newly established framework. POLIJE was one of the HEIs that applied a formal management model characterized by a goal-oriented, closed system, hierarchical leadership, and stable structure in which the centralized approach is inevitable within the curriculum reform (see Bush, 2003; Tsai & Beverton, 2007; Wallace, Tomlinson, & O'Reilly, 2011).

Studies have shown that a bottom-up change strategy is better when catering to the local needs and empowering the local resources. This strategy is found useful to stimulate the organization to be more sensitive to grasp the values and aspiration from the lower levels (Power, Maury, & Maury, 2002) and at the same time to generate trust and energy, as well as, empower them to contribute more effectively to the institutional vision (Riley & Jordan, 2004). Despite these strengths, this strategy is commonly considered ineffective when the change demands a large-scale change that is strategic to the whole system of the organization and concerns to deal with the particular legal stance (e.g., institutionalization of the innovation).

On the other hand, based on a large-scale investigation of government-driven reform, Wallace et al. (2011) found that a top-down strategy for systemic change

is unavoidable. The work of Tsai and Beverton (2007) revealed the effectiveness of a top-down approach in stabilizing the problematic and complex situation in which conflict was unavoidable and institutionalization of change was required. The larger the breadth of the change, the more necessary it is to deploy the top-down strategy. The more systemic and radical the change, the more necessary it is that the policy-makers in the organization involve and lead it (McNulty & Ferlie, 2004). Moreover, the level of urgency can also be a reason when an institution receives external coercive pressure (e.g., from the central government within centralization) while at the same time experiences potential internal resistance (Dunphy & Stace, as cited in Ryan, Tilbury, Blaze Corcoran, Abe, & Nomura, 2010). Thus, concerning these two strategies, Sabatier (1986) states that the bottom-up approach is appropriate in a free-legal constraint situation with a rather large number of actors without power dependency who are interested in the dynamics of local situations. Meanwhile a top-down one is necessary when the situation is predominated by a piece of legislation and economic dependency (Ryan et al., 2010). Government bodies or public organizations are usually bounded by these factors.

As one of the selected institutions, POLIJE planned a systematic top-down change that encompassed:

- task force formation;
- information diffusion;
- IQF technical workshop;
- unit-based curriculum reform; and
- institutionalization.

The above stages are in line with what is formulated in Fullan (2007) comprising three phases of top-down curriculum change: *initiation / mobilization / adoption, implementation, and institutionalization*. Within these, helping members to make sense of the meaning of the changes had become the prime intention of the top leaders at POLIJE (see Fullan, 2007; Kotter, 2012; Kotter & Cohen, 2002). In this case, the effectiveness of the first stages (information diffusion and technical workshop) was primarily perceived as a crucial stage to put fundamentals for the rest of the activities. These stages were essential to eliminate ambiguity and complexity with regard to the purpose, process, output, and outcome.

As in other top-down implementation approaches, the whole curriculum change processes at POLIJE were predominated by structure and legal constraints (see Bush, 2003; Hall, 1996; Sabatier, 1986). For example, the first stages demonstrate coerciveness both in the appointment of the task force and in the diffusion of information to the task force members and the middle leaders. Within the change processes, the authority of policy-makers gained its prominence through the official positions signified by the hierarchical structure of the university that was nationally legalized. It means that the university policy-makers were also constrained by particular legislation decreed by the central government, such as the curriculum reform acts. Therefore, the change vision transfer was centrally started from the national to the university and continued to the faculty level.

The university gained autonomy in the curriculum reform on the basis of the national guideline and forms. In turn, the faculty in the university implemented the *unit-based* curriculum development. After all, measurable and uniform-oriented outcomes were demanded by the university in the form of the written documents comprising of the graduate profiles, learning outcomes, courses map, syllabus, and lesson plans. In general, the overall stages were technically well organized with orientation on the fulfillment of structural and administrative formula.

Moreover, the deployment of either top-down or bottom-up approach has a relevant link to professionalism and agency issues (Briggs, 2006; Hall, 1996). In bottom-up strategy, the development of professionalism inside an organization strengthens the agency capacity that stimulates the increase of participation of the staffs in decision-making and in turn promotes participative management. In this case, when the boundary between the levels on the structure is blurred or less hierarchical (Bush, 2003), it creates flexibility for those below the structure apex to participate in decision-making. The emphasis is then on the initiative of the staffs at the lower level by which consensus is imperative to bring about shared decision-making (Honig, 2004; Power et al., 2002; Riley & Jordan, 2004). As a result, the atmosphere of the organization is shaped by normative and professional values or more collegial rather than structural (Bush, 2003).

On the contrary, a top-down strategy was commonly practiced in such organizations as POLIJE, which applied more formal, bureaucratic, and hierarchical management model (Bush, 2003). In general, most of the Indonesian universities were characterized by this model even though some had successfully nurtured more distributed one that cannot be detached from particular socio-cultural and socio-political contexts. Unlike bottom-up, top-down strategy puts the leadership function of those in the apex of the structure in the eminent position that is central to decision-making. In this case, managerialism practice is growing when the level of dependency of grassroots actors on the top leaders is high, while, their participation in decision-making is lower. In this atmosphere, middle leaders tend to face high complexity since they are acting between the top leaders and the grassroots actors. In this position, they need to bridge policy and implementation at the faculty level. They have significant functions to move across the levels, up and down, to promote and facilitate coherent communication and actions during change process (see e.g., Branson, Franken, & Penney, 2015; Hassan et al., 2018; Kohtamäki, 2019).

CHALLENGES OF LEADERSHIP

Studies in the contexts of internationalization and ESD in HEIs have shown that leadership practices and activities have significant impacts on the success of a change (Avissar, Alkaher, & Gan, 2017; Belogash & Melnichuk, 2018; Bush, 2011; Lee & Schaltegger, 2014; Mader, Scott, & Abdul Razak, 2013). Leadership agendas are much flourished by the adoption of distributed (Avissar et al., 2017; Kohtamäki, 2019; Sewerin & Holmberg, 2017), transformational (Bass & Riggio, 2006; Fullan, 2007; Kotter, 2012; Yaghi, 2017), and mixed models of leadership

(Doyle & Brady, 2018; Khalifa & Ayoubi, 2015; Lee & Schaltegger, 2014; Yaghi, 2017; Youngs, 2017). The theories of leadership and management in HEIs have been extensively addressed; nevertheless, how to influence and improve the effectiveness of practices within the diversity of contexts remains challenging.

The top leaders of POLIJE were interested in the adoption of transformational leadership because it was regarded as an elegant approach that was relevant to a top-down curriculum reform. A top-down strategy is in line with the concept of transformational leadership in term of its centrality of the leadership role in the success of change (Bass & Riggio, 2006; Kotter, 2012). The literature such as Kotter (2012) with the eight steps of transformational change and Fullan (2004) with the leadership framework that elaborates sources of members' commitment suggest that a change is started from the leader (Bass & Riggio, 2006). Throughout the process, the prominent functions of leadership involved how to influence people's behavior, to encourage achievement based on the vision, and to create leaders for the future (Bass & Riggio, 2006; Kotter, 2012).

For leaders, influencing people's behavior can be done through power generated from the organizational structure, personal aspects, relations, and rewards to those they are leading. With top-down change, mobilizing people tends to rely on organizational structure and rewards. While in a bottom-up change, personal aspects and relations become the core sources of reform energy. In POLIJE curriculum reforms, top leadership was perceived influential in the decision-making, the determination of vision, and the mobility of members in the project facilitated by structural and legal tools on the basis of the national direction and guide. In this way, complexity and ambiguity resulting from diversity, subjectivity, multi-interpretation, and other complexities were reduced (Bass & Riggio, 2006; Kotter, 2012), particularly with regard to policy level. In addition, top leadership had successfully established a sense of urgency with regard to the reform (Kotter, 2012). By elaborating global issues related to internationalization and ESD, top leaders had presented the actual external and internal factors to foster a sense of urgency (Kotter, 2012).

In the overall stages, the top leaders instructed and guided the process of curriculum reform started from planning, implementation, and evaluation. Nevertheless, the influence performed by the top leaders was insignificant to impact on actors below the middle leaders. Even though there were efforts of building relationships which indicated a little aspect of distributed leadership intention, the impact was insufficient to influence the grassroots levels. Based on the theories (Bass & Riggio, 2006; Kotter, 2012), communicating the vision and bringing the actual issues of change urgency is an initial action needed to simultaneously execute curriculum reform. Moreover, there was a bias situation in terms of mobilizing and inspiring the people, whether the top leaders inspired the people or just the structure mobilized them. While this could be positive in that two sources of power coexisted in an overlapped manner to produce stronger impact, there was evidence that there was a gap between top leaders and the grassroots actors. This is confirmed in the work of Ryan et al. (2010). In their research investigating a top-down strategy in a government agency, the findings suggest that transformative leadership successfully inspired

but was not followed with the sense of ownership in the lower level so that this influenced the working climate to be lack of staff participation and commitment. Relevant to this is the investigation of Wallace et al. (2011). They found that within a large-scale top-down change there is a considerable downside to the strategy in terms of connection and coherence between the top management and the people in the lower levels.

Within the above situation, the role of middle leaders was particularly crucial to bridge the space between the top leaders and the grassroots curriculum developers. In this top-down change, the intention to adopt the transformational leadership model was clear in the level of top leaders, while in the middle leadership, practices were less hierarchical (see Jones, Lefoe, Harvey, & Ryland, 2012). When handling predicaments emerged due to the growing gaps between top and grassroots level, the middle leaders were prone to act flexibly to cater for the uncertainties. They moved critically up and down across the levels (Branson et al., 2015; Jones et al., 2012; Kohtamäki, 2019; Lee & Schaltegger, 2014). Within this, there was complexity in handling the change process.

An example was a complexity caused by the gap between the top leaders' agenda and the intended reality. While the top leaders moved over the political, generic, and interdisciplinary areas, the curriculum reforms demanded the curriculum developers act practically, mechanically, and discipline oriented. This gap created uncertainties that had to be handled critically by the middle leaders (Kohtamäki, 2019). Another challenge was how to elaborate a wide diversity of thoughts and preferences. In the unit-based curriculum development, there was a contestation in interpreting purpose, substantial matter, and process of curriculum reforms. Some might go too theoretical, while others wanted to be practical. In addition, since POLIJE conducted vocational and professional higher education, curriculum developers involved in the project had different educational and professional experience backgrounds which opened spaces for debate between academics and professionals. These reveal the task complexity of the middle leaders (Hassan et al., 2018; Kohtamäki, 2019; Youngs, 2017).

Hassan et al. (2018) identify what factors influenced the effectiveness of leadership that includes leadership decision quality, follower commitment, follower satisfaction, organizational settings, and organizational culture. In POLIJE curriculum reforms, the role of the middle leaders was significant both in the top and the grassroots levels. The function of middle leaders particularly gave direct impacts on follower commitment and satisfaction. On the other hand, they moved up by performing strategic communication to absorb policy and vision to give influence on top leaders' decisions. They not only learned policy but also worked practically in light of the grassroots aspiration. Thus, they tended to apply a pluralist approach (Doyle & Brady, 2018), which viewed changes beyond the boundaries of conservative leadership theories. They acted rationally and adaptively based on the local situations (Yaghi, 2017) and oriented their communication to nurture collaborations in order to facilitate successful change (Branson et al., 2015; Jones et al., 2012).

Moreover, conducting a large-scale curriculum reform is multifaceted and multilayered. This is why knowing the meaning of the reform project is primarily

important to build the actors' motivation and to generate energy. Without this, they could easily lose power during the reform scrutinizes that gave effects on the effectiveness of their functions. In this case, leadership needs to nurture and sustain meaning during the whole change process. A top-down approach tends to drive the educational reform activities to focus on the structure while the substantial matter behind the reform is undermined (Goodlad, 1992). Closing in on a deeper meaning, Fullan's (2007) multidimensional change theory helps clarify the breadth of curriculum reform. It comprises *materials* (a set of the curriculum as written documents), *approach* (teaching and assessment methods) and *beliefs* (principles, values, and norms). It construes that a change in the written documents is more practical and explicit than a change in two other dimensions that encompass teaching approach, beliefs, values, and the underpinning ideology, which are parts of professional practice and *culture change* (Bennet, Crawford, & Riches, 1992; Fullan, 2007).

Based on this, any curriculum reform needs to go beyond the forms. Superficial curriculum reform will undermine meaning which influences the members' commitment and sense of ownership. Fullan (2007) distinguishes two types of curriculum reform: *innovation-focused approach* and *capacity-building focus*. The first is intended to produce new forms of curriculum particularly to deal with accountability of curriculum administration, while the second is oriented to build the agency capacity of the members in order to be able to deal with the whole change project. In light of the framework, the top leaders of POLIJE more concerned on the innovation of curriculum as the written documents while the middle leaders handled more deeply the reform agenda in the grassroots levels which was much related to the capacity development of the curriculum developers in faculties.

COMMITMENT TO ORGANIZATIONAL LEARNING

In light of sustainable education, a curriculum change is evaluated not only in terms of its political and substantial matters but also the extent to which the process has an impact on the capacity development of those who involved in it. In this case, the role of leadership is paramount to maintain sufficient organizational learning (Cebrián, 2016; Cebrián, Grace, & Humphris, 2013; Khalifa & Ayoubi, 2015), since it is fundamental for sustainable change (Bauman, 2005; Boyce, 2003). Studies indicate that leadership practices in higher education, especially those adopted mixed approaches depending on the situation, for instance, between transactional and transformational, distributed and collaborative, and other possible combinations, are fruitfully profound to be reoriented to revitalizing the notion of organizational learning (e.g., Bauman, 2005; Doyle & Brady, 2018; Fullan, 2004; Jones et al., 2012; Khalifa & Ayoubi, 2015; Lee & Schaltegger, 2014; Lewis & Cooper, 2005; Lumby, 1997; Youngs, 2017). Revans (as cited in Lumby, 1997) states "the rate of learning in an organization must equal or be greater than the rate of change" (p. 31). This is justified because learning activity improves capacity while a reform project requires the best ability of the staffs. Thus, the best performance of the organizations will

strongly be influenced by the quality of investment on the capacity development of the staffs (Biasutti et al., 2018; Lourenço, 2018; Middleton, 2003). It means that learning activities in an institution need to be prioritized in order to improve the productivity of the staffs. Nevertheless, until currently, many HEIs have been focused on the intended changes rather than the capacity development of the staffs (Mulà et al., 2017) and the institutions. This is why there are many changes might not result in the expected outcomes. In this case, the notion of organizational learning gives the fundamental for successful change and sustainable organizational development (Argyris, 1999; Bauman, 2005; Boyce, 2003).

There are two terminologies used to refer to this concept: *organizational learning* and *learning organization*. Despite both terms have been frequently used interchangeably, the former tends to view the detached set and process analysis involved in the individual and collective learning, while the latter is on the entity that involves organizational learning activities (Lumby, 1997). In this tenet, the individuals' experience is the core component of organizational learning (Levitt & March, 1996; Lewis & Cooper, 2005). However, to have the learning individuals in an HEI is not enough for organizational learning (Argyris, 1999). It represents the production of knowledge and cognitive shift (Bensimon, 2005) through individual learning that has impacts on the organizational actions and performances. Argyris (1999) distinguishes two models of learning: *single-* and *double-loop* to fortify organizational learning. The first represents a learning process involving superficial cognitive performance with limited impact on cognitive development of the individuals. While in the second, the individuals' actively and critically produce and reproduce knowledge to underpin the organizational practices of the individuals and to improve the organizational capacity to perform more effectively in the future.

The organizational learning practiced within the curriculum reforms in POLIJE was both driven and undermined by the political and structural scrutinizes. As a consequence, in the whole process of mobilization, development, and institutionalization, the curriculum developers were overwhelmed by administrative agendas. Within this, the socio-cultural interactions and actions nurtured through the panel meetings, workshop activities, departmental works, executive meetings, and other communications, might not sufficiently support and nurture the learning activities at the individual level. The focus of talks, presentations, discussions, and activities was on the understanding of legalized formats and how to achieve uniformity in national level rather than on the extensiveness of curriculum substance and logic in light of the IQF and sustainable education. Since the situation was predominated by a formalization of reform agendas, the process might satisfy political agendas but be criticized in terms of the extent to which it might support a merit-based notion of change. As asserted by scholars (e.g., Levitt & March, 1996; Lewis & Cooper, 2005; Lumby, 1997), since the experience of individuals within the organization allows itself to learn from the past and transform it into new knowledge, poor learning at the individual level caused inferiority in the learning institution. In this case, structure constraints overwhelmed learning, while the individual aspects (e.g., motivation, conflict, and agency) might also contribute to this weakness. This situation confirms the viewpoint

of scholars with regard to structural constraints in a top-down approach (e.g., Lumby, 1997; Senge, 1990).

Current researches in HEIs indicate that the tenet of sustainable education and organizational learning supports the concept of distributed leadership approach with decentralization system vis-á-vis centralization with its bureaucratic command-and-control model (Avissar et al., 2017; Kohtamäki, 2019; Senge, 1990; Sewerin & Holmberg, 2017). A decentralized approach has been found better to enhance collegiality and participative decision-making that emphasizes the capacity building at the lower levels. Nevertheless, elaborating more than one approach depending on particular situations is much better. Yaghi (2017) found that elaborating transactional and transformational can be great not only to survive but also to excel. While the first has a contingent reward, the second offers inspirational motivation to boost change energy (Khalifa & Ayoubi, 2015). A bottom-up leaderships such as transactional, distributed, or collegial models are effective tools to nurture organizational learning but tend to be slow and gradual. However, accompanied by a top-down leadership such as transformational one, the learning culture in an institution can be accelerated. To this point, therefore, organizational learning could occur both in centralized and decentralized systems in unique manners depending on the collaboration between the top and middle leadership.

Archer (1996) suggests that a change involves a cycle: cultural conditioning, socio-cultural interaction, and cultural elaboration. Cultural conditioning involves all initiation to set up a particular situation appropriate to the purpose of the intended change. While socio-cultural interaction is based on and influenced by the extent to which cultural conditioning has been put forward. Furthermore, the ongoing process built up from cultural conditioning and socio-cultural interaction encourage cultural elaboration, an overarching term that also signifies the nature of organizational learning (Archer, 1996). As these continuously and simultaneously occurred in an organization, organizational learning can be facilitated more effectively. The function of leadership needs to take account of these. In a bottom-up leadership, the cycle tends to be slow since it depends on shared decision-making and the quality of agents in the lower levels. In contrast, a top-down leadership allows the tops to have their discretion to create a conducive culture for learning in a more efficient way although it tends to be coercive. However, together, both of the leadership (top and middle) could enhance the effectiveness of an institutional change while at the same time can facilitate effective organizational learning (Branson et al., 2015; Jones et al., 2012; Lee & Schaltegger, 2014; Youngs, 2017).

CONCLUSION

This chapter has highlighted the importance of leadership in curriculum reform in the HEIs within the ESD context. Since ESD concerns on transforming the society toward global well-being, its planning, implementation, and evaluation are complex and a long-term investment. One of the HE transformational actions is curriculum reform, in which, the leadership role is examined.

In the case of POLIJE, top leadership tended to function in the policy level and its coherence in national context while the middle leadership handled most of the implementation in the department level. There were complexities during the process caused by the gaps emerged between the policy and grassroots interests; nevertheless, the role of the middle leaders was primarily crucial in handling them by applying more collegial, collaborative, and rational approaches. In this way, there were positive indicators that the middle leaders complimented the top leaders in the areas which were less hierarchical. However, while both leaderships concentrated on the accomplishment of the change vision, the individual and organizational learning was lack of attention. In the overall process, there have not been explicit leadership efforts in empowering the peoples and preparing for future leaders at all levels.

Complexity is obvious due to the trends of internationalization and democratization of higher education, which offer the overlapped and interconnected direction of reform agendas within specific socio-cultural and socio-political settings. It suggests that traditional ideas of leadership are insufficient to cope with the existing complexity and dynamic. Today's leaders need to consider the power of flexibility and open-mindedness in coping with the rapid development of education worldwide without ignoring the existing reality and constraints. Since the organizational constraints are usually strong and overwhelming for the individuals involved in the reform including those in the top levels, the concern and commitment on capacity development of the leaders and their staffs need to be increased and sustained in order to nurture quality organizational learning.

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