

A DISCOURSE ANALYSIS OF THE INFLUENCE OF INTERNATIONAL ORGANIZATIONS IN MALAYSIA THROUGH COMPLEXITY THEORY

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ABSTRACT

The influence of international organizations on national education systems have been increasing substantially in recent years. As the role of nation-states is changing in education governance, this has enabled international organizations to not only govern, but also regulate education practices around the world. In order to unpack the complexities of the advancing role of international organizations on national education systems, this research pays attention to Malaysia, a country from the Global South and has recently experienced its first political transition. Utilizing a discourse analysis underpinned with theoretical framework of complexity theory, this study investigates the Malaysian Education Blueprint, a major education policy document, alongside 24 online blogs and articles related to the Malaysian education system. An analysis of the blueprint shows the nation's over-reliance on benchmarking the education system against OECD's standards. Similarly, findings from a discourse analysis of the articles and a learning module, PISA HEBAT Reading Module, highlight the influence of OECD PISA in orienting literacy learning in the Malaysian education ecosystem. Three emerging themes emerged in this study, which are uncritical take on international assessments, the emphasis on decentralization, and the growth of International Baccalaureate.

RESUME

L'influence des organisations internationales sur les systèmes éducatifs nationaux s'est considérablement accrue ces dernières années. L'évolution du rôle des Etats-nations dans la gouvernance de l'éducation a permis aux organisations internationales non seulement de gouverner, mais aussi de réglementer les pratiques éducatives dans le monde entier. Afin de démêler les complexités du rôle croissant des organisations internationales sur les systèmes éducatifs nationaux, cette recherche s'intéresse à la Malaisie, un pays du Sud qui a récemment connu sa première transition politique. Appuyée par une analyse du discours étayée par le cadre de la théorie de la complexité, cette étude examine le Plan directeur de l'éducation malaisien, un document majeur de politique éducative, ainsi que 24 blogs et articles en ligne relatifs au système éducatif malaisien. L'analyse du plan montre que le pays fait un recours excessif aux standards de l'OCDE pour l'évaluation du système éducatif. De même, les résultats d'une analyse du discours des articles et d'un module d'apprentissage, le module de lecture PISA HEBAT, mettent en évidence l'influence du programme PISA de l'OCDE sur l'orientation de



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l'apprentissage de la lecture dans l'écosystème éducatif malaisien. Trois thèmes émergent de cette étude, à savoir la prise en compte sans critique des évaluations internationales, l'accent mis sur la décentralisation et la croissance du Baccalauréat international.

Today, IOs, such as the Organization for Economic Co-operation and Development (OECD), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the World Bank, have the tools to compare national education systems through numbers, particularly through ratings and rankings (Carvalho, 2018; Gorur, 2015; Grek, 2009). One such tool is the Programme for International Student Assessment (PISA), which was launched by the OECD in 2000. This drives the success of organizations, such as the OECD, in governing education “through its statistics, reports and studies” (Grek, 2009, p. 25), simultaneously carving an “authoritative character” (Porter & Webb, 2007) in dispensing policy recommendations. As Porter and Webb (2007) rightly highlight, scholars and politicians accept educational policy recommendations by IOs like the OECD, simply because of its label. By taking consideration of how IOs influence national education systems through different mechanisms, this research paper aims to unearth and unravel how IOs influence the education system of Malaysia. In an attempt to contribute to the scope of the comparative and international education field, this research pays attention to Malaysia, a country from the Global South that has recently experienced its first political transition. In order to understand how IOs influence the Malaysian national education system, this study conducted a discourse analysis on the Malaysian Education Blueprint (MEB), a major policy document in the Malaysian education landscape (Ministry of Education Malaysia, 2013), including 24 online articles and blog posts which are related to the Malaysian education system. The blueprint has been selected because it plays a powerful role in mapping the future of education in Malaysia. By utilizing a discourse analysis, the goal is to interpret the various ways in which international organizations influence the Malaysian education system. As noted by Hewitt (2009), one of the objectives of discourse analysis is “to expose patterns and hidden rules of how language is used and narratives are created” (p. 2). In this context, the goal is to see how narratives related to IOs are formulated and put forth in both the education blueprint and the online articles.

In order to disentangle the complex nature of the influence of IOs in the education system, complexity theory has been utilized. This theory provides opportunities in examining how systems develop and change. For the purpose of this study, complexity theory is a useful framework in understanding and describing a complex system, in this case, how IOs influence the Malaysian national education system. From the discourse analysis underpinned with complexity theory, this study has identified three key features – the uncritical uptake of international large-scale assessments, such as the Program for International Student Assessment (PISA), the decentralization of the Malaysian education system, and the growth of International Baccalaureate, in relation to how IOs influence the Malaysian education landscape. The three key features were identified upon analysing the 11 shifts proposed in the blueprint, which are meant to transform the education system. By utilizing complexity theory based on the 11 shifts, it highlights how IOs utilize different mechanisms to influence the Malaysian education system.

With an increasingly knowledge-dependent economy and the rise of global economic competition due to the fourth industrial revolution (Jules, 2018), the stakes for educational attainment have never been higher. This has created the space for IOs to exert power in the domain of global education policy by measuring education systems through global education programs, standardized international assessments, and global league tables (Grek, 2012; Jules, 2018; Meyer & Benavot, 2013; Molstad & Pettersson, 2018). These IOs not only dictate the trajectory of complex national education systems, but also implicitly impose their own agenda (Morgan & Shahjahan, 2014; Steiner-Khamsi, 2012). Today, education governance can be analogized to a “spaghetti bowl”, a metaphor first popularized by Bhagwati (1995) that highlights the “multiple and concurrent participation by governments in different educational agreements across various levels (supranational and global) in today’s multistakeholder governance environment” (Jules, 2018, p. 140). Indeed, global corporations and multinational firms, like McKinsey, Cambridge Education; philanthropic bodies, namely the Bill and Melinda Gates Foundation, the Walton Family Foundation; older educational actors, and international knowledge banks, play a role in education governance today (Jules, 2018). As Grek (2018) and Jules (2018) point out, these organizations operate across various levels in the domain of education policymaking. This phenomenon of “education multistakeholderism” has changed the contours of education governance in today’s global environment. Consequently, the role of nation-states in education governance today has vastly changed from the industrial era to the post-industrial era (Jules, 2018). Put simply, national governments once had the sovereignty to determine the trajectory of their education system. However, today it is influenced through interaction and mediation across all “levels and actors” (Grek, 2018, p. 186). Subsequently, the role of national governments in education today is ‘reconfigured’ due to the presence of IOs (Carney, 2012, p. 342). As Martens and Niemann (2019) presented, IOs rely on soft governance to influence policy, as IOs are able to exert influence through the dissemination of ideas, naming and shaming, and, rating and rankings. This form of soft governance has an impact on the behavior of the state, other actors, and stakeholders. This situation also compels national governments to take into consideration the findings of IOs and implement their recommendations in their education system as a way to “gain legitimacy and public confidence” (Lee & Park, 2014, p. 392). To sum it up, nation-states see their role diminished in national education systems (Jules, 2018) and play more of a ‘clientele role’ (Grek, 2018).

1. COMPLEXITY THEORY

Complexity theory first emerged in the field of natural sciences, and Mason (2008a) posits it as a still relatively stranger in the domain of social sciences, having first been used in the field of economics. To begin with, complexity theory does not mean complicated. As Perony (2013) states in his talk, “something complicated comprises many small parts, all different, and each of them has its own precise role in the machinery”. On the other hand, a complex system has multiple similar parts and through interaction, a globally systematic pattern emerges. To elaborate this notion, a major concern of complexity theory as Mason (2009) denotes: “Once a system reaches a certain critical level of complexity, otherwise known as critical mass, a phase transition takes place which makes possible the emergence of new properties and behaviours and a momentum whose inertia is significantly increased” (p. 118).

Taking this into mind, complexity theory enables better understanding of complex systems, in this case – education systems. A national education system is made up of multiple interactions between various elements or agents that form a complex environment. In the past, education systems have been viewed as static systems under the sovereignty of nation-states. However, with the rise of IOs, along with the emergence of education multistakeholderism, the contours of education governance are continuously shifting. Education is viewed as the key tool in preparing human capital for the global workforce. With the rise of the Programme for International Student Assessment (PISA) that acts as a global panopticon of national education systems, education has been reduced to a commodity and nation-states are under pressure to shift their education systems in order to excel in these international large-scale assessments which take a reductionist perspective on education. Education has become the key to surviving and adapting to the global world, and as Morrison (2002) states, complexity theory is “a theory of survival, evolution, development, and adaptation” (p. 6). Consequently, this theory suits the current trajectory of global education, which is ever-changing and fluid.

The use of complexity theory warrants the use of qualitative research, in line with the method utilized in this study, which is a discourse analysis. According to Mason (2008a), this theory enables the exploration of new properties and behaviours that emerge from the dynamic interactions and adaptive orientation of a system. As a result, Mason (2008a) notes that complexity theory provides “the most cogent understanding of the nature of continuity and change” (p. 16). He breaks down the theory into four components which are “theories of critical mass, phase transition, emergence and auto-catalysis” (Mason, 2008a, p. 16). When an environment has reached a significant degree of complexity, also known as critical mass, this leads to a phase transition as new properties and behaviours emerge which are not related to the initial condition (Mason & Katyal, 2007). The emergence of new properties and behaviours is defined as the emergence, which finally leads to auto-catalysis. As Mason and Katyal (2007) establish, auto-catalysis takes place when the new set of interactions is able to sustain itself in the new system. The goal of this study is to understand how IOs influence the Malaysian education system through a discourse analysis of the Malaysian Education Blueprint (MEB). By utilizing complexity theory, this research intends to explore the behaviour of the state in orienting its education system.

In order to exemplify complexity theory in education change, this paragraph will briefly illustrate the case of OECD as to how it situates itself as a prominent actor in the landscape of global education systems through the publication of PISA rankings. PISA rankings are published in a simplified, vertical league table, which ranks the participating countries and economies from high-performing to low-performing. This attracts both global and national media attention which creates a distinction between PISA-winners and PISA-losers. As the media attention builds ‘momentum’ for nation-states to take PISA scores into consideration for national education reforms, this leads to critical mass. In this case, critical mass is identified as the use of PISA scores to inform national education reforms. Critical mass is generated as nation-states positioned low in the vertically ranked table are considered to be performing poorly at a global scale. This leads to the next phase of transition, as interventions, through education planning and reforms, take place at every possible level until the OECD’s

recommendations based on PISA rankings and scores become embedded within the planning framework of national education systems. What follows is the emergent phase as national education systems gradually shift to mirror OECD's propositions and this ultimately enables the OECD to become a major player in global education policymaking. With the passage of time, as Mason (2008) would state, the use of OECD's PISA in education reforms is autocatalytically sustained as nation-states begin to benchmark and measure their education success through future iterations of PISA rankings and scores.

2. CRITICISM OF THE MALAYSIAN EDUCATION SYSTEM

Education is the biggest recipient of the 2019 Annual Budget, receiving RM60.2 billion or 19.1 per cent of total government spending (Ramasamy, 2018). Without a doubt, the public are highly critical of the education system in Malaysia because of its high expenditure. Due to constant public pressure over its failing education system, the Malaysian Education Blueprint (MEB) was formulated to overhaul its failing education system. Simultaneously, the Blueprint was the nation's response to prepare learners for the 21st century (Ministry of Education Malaysia, 2013). In order to begin dissecting the Malaysian education system, it is important to take a cursory glance at its education status that has been heavily scrutinized and criticized. The Malaysian education system has been constantly characterized with these key features: (1) an over-reliance on public examination results as determinants for progress into higher education and occupational opportunities (Wan Mustapha, 2017), (2) rote memorization (Kaur, 2017), (3) lack of critical and analytical skills (Woo, 2019) and (4) surface-level understanding of material (Jalal, 2017). With global economy shifting, Woo (2019) stated Malaysia needs to revamp its education model to build human capital and bolster economic growth. Adding to that, the national education system has always come under intense public scrutiny as parent groups voiced their concerns about the failing education system (Dzulkify & Kang, 2019), coupled with private-based employers stating the Malaysian education system is not sufficiently preparing young Malaysians to be part of the global 21st century workforce (Kasim, 2019). In order to mitigate the public's disapproval of the education system (Ministry of Education Malaysia, 2013), the government launched a large-scale initiative to improve the Malaysian education system by benchmarking the education system against international standards.

Due to the rising concerns of the Malaysian national education system, the Malaysian government undertook a huge task to revamp the national education system by working with other stakeholders in producing the nation's major education reform document, the Malaysian Education Blueprint (MEB). In order to benchmark the current education system against international standards, equip learners for the challenges of the 21st century, and meet the demands of the public and parental expectations for an improved education system, the Ministry of Education (MOE) worked with education experts at UNESCO, the World Bank, and the OECD; and with six local universities, principals, teachers, students, and members of the public through national dialogues and forums to evaluate the current education system. The MEB was officially launched in 2013. While the Education Blueprint was hailed as a major driving reform, it received criticism from all angles (Lim, 2013). One such criticism comes from Ong Kian Ming, a former opposition leader now part of the ruling coalition upon the 2018 General

Election political shift. He criticized the Ministry of Education back in 2013 for its lack of transparency in not disclosing the information that the Ministry had worked with the global consultancy firm McKinsey and Co to publish this blueprint (Lim, 2013). Nonetheless, upon the political transition, in 2018, Dr Maszlee Malik, the education minister, reaffirmed that the blueprint is still considered a major document in driving the future of education in Malaysia. Hence, the implementation of the education blueprint is given utmost attention by the new government under the Alliance of Hope leadership. Considered the backbone of education development in Malaysia, the MEB is implemented in three waves - Wave 1 (2013-2015) which focused on turning the system around by supporting teachers and on core skills; Wave 2 (2016-2020) focusing on accelerating system improvement; and Wave 3 (2021-2025) moving towards excellence with increased operational flexibility (Ministry of Education Malaysia, 2013).

3. METHODOLOGY

This research paper utilized a qualitative research design. One of the advantages of utilizing a qualitative method is it allows the researcher to explore a phenomenon at a greater depth by considering political and historical contexts which are embedded within the social context. In this context, this research attempts to explore the complexities of how IOs influence the Malaysian education system. Drawing on parallel lines, a qualitative approach does not make generalizations, which is beneficial as this study intends to look at how IOs are received and understood in a localized, specific context.

This qualitative approach utilizes a case study method as the goal is to develop a detailed understanding of a particular context and then exploring the detailed system through a detailed analysis (Cresswell, 2007). The rationale of selecting Malaysia is because of its diverse historical, cultural and linguistic background which has shaped a heterogeneous education ecosystem. Adding to that, the country is also recently going through its first political transition, which makes it even interesting to explore the Malaysian education system. Education reforms have been largely used by political parties to shape public perception. Indeed, this can be seen through the formation of the MEB, which the previous government pursued as an attempt to win support from the public, who were unhappy with the education system. Therefore, this study attempts to explore how IOs have influenced the blueprint.

In order to build the case study, this research utilizes a discourse analysis of the Malaysian Education Blueprint, which is a major education policy document currently present in Malaysia. As an attempt to provide nuances to the findings, online blog posts and articles in relation to the Malaysian education sphere were also taken into account. In total, this study referred to 24 online articles and blog posts on the Malaysian national education system. The researcher also analyzed the PISA Hebat Reading Materials, which are enrichment materials specifically based on PISA literacy standards. A combination of discourse analysis and complexity theory offers insights on the emerging patterns of how IOs influence the Malaysian education system. This can be identified by analyzing how discourses are assembled in both the blueprint and the selected online articles.

4. FINDINGS

From the perspective of complex theorists, education changes are not about “effecting change in one particular factor or variable, no matter how powerful the influence of that factor” (Mason, 2008b, p. 44). In fact, shifts in education is more about “generating momentum in a new direction by attention to as many factors as possible” (Mason, 2008b, p.44). Taking a cue from this, it can be implied that education shifts proposed in the blueprint were based on findings from IOs, such as OECD PISA. One such example that can be seen is in Shift 9 – Partner with parents, community, and private sector at scale. The document states, “For example, evidence from OECD studies on PISA indicate that certain parent-child activities – such as reading to their children on a daily basis or discussing how their day was – can significantly raise student outcomes, regardless of socio-economic background.” This shows how the OECD PISA finding is utilized in pushing for education shifts in the blueprint. In fact, the influence of IOs can be seen in the Executive Summary:

Over the course of 15 months, October 2011 to December 2012, the Ministry drew on many sources of input, from education experts at UNESCO, World Bank, OECD, and six local universities, to principals, teachers, parents, students, and other members of the public from every state in Malaysia. The result is a Malaysia Education Blueprint that evaluates the performance of current Malaysia’s education system with considerations of historical starting points against international benchmarks. (Ministry of Education Malaysia, 2013, E1)

Although multiple actors were involved in producing the blueprint, international standards were used as key evidence in formulating the 11 shifts. The international standards stated here are findings from UNESCO, the World Bank, and the OECD. According to the blueprint, the goal is to offer “a vision of the education system and student aspirations that Malaysia both needs and deserves, and suggests 11 strategic and operational shifts that would be required to achieve that vision” (Ministry of Education Malaysia, 2013, E1). Therefore, the 11 shifts are considered essential for the purpose of this research as it is a product of multistakeholderism as various stakeholders provided their insights in establishing the blueprint. The stakeholders consist of 12 Malaysian Review Panel members, four International Review Panel members, six public universities, and nine education labs. The team behind the blueprint also reviewed 3 000 articles and blog posts, including 2,000 memorandums. It also conducted 20+ independently organized seminars and discussions, and held nine open days. Finally, the blueprint also took into account opinions from principals, teachers, students, education officers in both state and district departments, members of parents-teacher associations, and public citizens. As a result, the blueprint is considered the largest and most inclusive education reform to date. By analysing the blueprint through the lens of complexity theory, the goal is to unearth how IOs inform and dictate the national education policymaking in Malaysia, though multiple actors were involved in producing the blueprint.

4.1. An uncritical take on international large-scale assessments (ILSA)

One of the benchmarks to measure the quality of the Malaysian education system is being in the “top third of countries in international assessments such as PISA and TIMSS in 15 years” (Ministry of Education Malaysia, 2013, p. E9). The MEB concludes that the quality of education in Malaysia is in decline and this can be seen in Malaysia’s poor performance in international large-scale assessments, like TIMSS and PISA. The performance of Malaysian students in TIMSS has gradually fallen from 1999 to 2011. Similarly, Malaysia was ranked in the bottom third of 74 participating countries in PISA 2009+, which is below the international

and OECD average. While Malaysia slightly improved in PISA 2012, it was still ranked in the bottom third, placed 52 out of 65 countries (Kang, 2013).

In PISA 2015, Malaysia's results were not listed in the official PISA website because Malaysia was disqualified from the PISA rankings. Although it was reported that Malaysia followed all protocols in line with the technical standards for PISA ('Report being prepared to explain PISA disqualification', 2016), it was disqualified because "the weighted response rate among the initially sampled Malaysian schools (51%) falls well short of the standard PISA response rate of 85%" (World Bank Group, 2017). Malaysia's disqualification is mainly due to the fact the former government was under immense pressure to showcase that the education system was improving. The previous Ministry of Education switched many participating national schools to residential schools, which mainly consists of academic adept students. Therefore, the results of PISA 2015 for Malaysia may not be comparable to other participating countries, as well as to results for Malaysia from previous PISA editions. The education ministry's decision to switch the participating schools in PISA 2015 is likely due to the increased critical scrutiny of Malaysian public schools. This shows international large-scale assessments, such as PISA, can be extremely influential in dictating the nation's agenda. PISA is a test which looks at the real-world application of knowledge and does not require students to prepare for it. However, Malaysia has been actually preparing its students to sit for the assessment through intervention educational camps. There have been several examples of this that can be found online where students take part in three-day camps preparing for PISA (SM Sains Sembrong, 2015; SMK Sultan Alauddin, n.d.). Indeed, some schools even provide funding for teachers to carry out PISA-based activities in their schools (SMA Nahdzah, 2015). The notion of banal nationalism by Piattoeva and Trohler (2019) comes into play here as national education systems are wanting the schools to perform well in PISA assessments for national pride. In the case of Malaysia, the MOE actually set the target for national schools to score a minimum 460 score, while fully residential schools are to achieve a score of 500 (SMA Nahdzah, 2015). As Gorur (2015) posits, today education data paints a true picture of the state of national education systems. This clearly shows how Malaysia had tried its best to improve its PISA standings artificially as a way to gain legitimacy of its education system.

In an attempt to improve its PISA scores in 2015 and by stating explicitly that Malaysia intends to be in the top third of countries in 15 years in the blueprint, it can be said that Malaysia reached 'a critical level of complexity' (Mason, 2009), otherwise known as critical mass. What happens when a system reaches this stage is the emergence of new properties and behaviors. In this case, the Ministry of Education introduced the Reading Literacy Program for PISA (HEBAT) (see Curriculum Development Division, 2014; Curriculum Development Division, 2016). The guidebook provides detailed information about the reading literacy tests as tested in PISA. The guidebook even goes to the extent of making teachers aware of PISA terminology in reading, such as 'full credit', 'partial credit', and 'no credit'. The guidebook also recommends teachers expose students to higher-order thinking skills and questioning techniques. These reading materials are specifically developed based on PISA assessments and were meant for students to be used in the classroom. Hence, from a complexity theorist perspective, the development and distribution of these learning materials is indicative of the emergence of new properties from the influence of IOs. Therefore, this clearly shows the power the OECD wields as a dominant education policy actor. Grek (2014) would have agreed that the OECD has successfully transformed into a 'site of coproduction' of both knowledge and social order.

4.2. The decentralization of education in Malaysia

One of the 11 shifts proposed by the MEB is to empower state education departments, district education departments, and schools to customize solutions based on needs, which is a form of decentralization of the national education system (Ministry of Education Malaysia, 2013, p. E18). Traditionally, Malaysia takes a top-down approach in education decision-making (Gill, 2006; Jalal, 2017; Lee, 1999). Top-down approach in the Malaysian education system can be described as the government providing direction for schools to execute education reforms at a local level. Decentralization has been one of the major reforms among national education systems, particularly from the Global South (Lee, 2018). With the rapid expansion of education, it has become increasingly challenging “to plan and administer all education activities effectively and efficiently from the center” (Lee, 2018, p. 240). Thus, decentralization is one of the ways to increase education attainment under the rationale of quality and efficiency (Lee, 2018). By promoting decentralization in education, Lee (2018) postulates that it increases effectiveness as it moves “control over the schools closer to parents and communities [...] making education more responsive to local problems and needs” (p. 240). In Malaysia, typically the central ministry holds the power although the state and district education departments have been long established. Nevertheless, through Shift 6, the goal is to empower state and district education departments for the purpose of delegating power. Thus, state education departments were responsible to devolve routine duties to the district department (Lee, 2018; Lee, 1999). The shift also goes a step further by stating schools should have autonomy “to practice flexibility in budget allocation and curriculum implementation as well as making decisions on personnel matters” (Lee, 2018, p. 240). A complexity theorist would argue that the discourse of decentralization in education emerges at a particular point in history as central education authorities cannot keep pace with the intensification of globalization. Thus, a new pattern of behavior emerges, whereby schools are empowered to serve local needs.

Another salient example of decentralization is the implementation of the Dual Language Program (DLP) in Malaysia. DLP is a niche reform which gives power to schools to decide to teach mathematics and science in English (Chin & Rajaendram, 2017). Introduced in 2016, DLP replaces the system-wide reform of Teaching Science and Mathematics in English (PPSMI) which was discontinued in 2009 after being introduced in 2003 to improve English language proficiency (Abdul Rahim, 2012). The language policy was heavily criticized by right-wing Malay groups, as well as by the United Chinese School Committees' Association of Malaysia (Dong Zong), and by the National Tamil Teachers' Union who felt the policy sidelined the use of mother tongue in education ('Striking a balance', 2009). In line with that, the PPSMI policy was unsuccessful as it failed to gain political support from the varying communities due to its contesting nature. Adding to that, multiple studies from Malaysian universities (Corporation Communications Unit Ministry of Education Malaysia, 2011) also suggested that PPSMI resulted in a widening gap between the achievements of urban and rural students in Mathematics and Science. Nonetheless, with English being viewed as an international language that guarantees employability and marketability, urban Malaysian parents voiced their concerns for the need to teach Science and Mathematics in English (Abdul Rahim, 2012). This promulgated the start of DLP, a niche-based reform, which is uncommon in the Malaysian education terrain. It can also be assumed that this is the first decentralization program in Malaysia that gives power to schools to implement what works for them. Indeed, this clearly shows the government having to mitigate the competing demands from various stakeholders. From a complexity theory perspective, the PPSMI policy emerged at a particular historical point as a way to arrest the decline of English language standards. Parallel with that, Malaysia intended to be a global player and the usage of English was viewed as essential.

However, the non-linear and dynamic interactions between the multiple agents resulted in the government discontinuing PPSMI and introducing DLP, which can be inferred as an adaptive mechanism. This move can be viewed as an attempt to receive political support from both agents - those against PPSMI and those who want English to be utilized for mathematics and science.

4.3. The growth of International Baccalaureate

The influence of IOs can also be mapped through the growing number of International Baccalaureate (IB) programs in Malaysia. In MEB, the International Baccalaureate (IB) Middle Years Programme (MYP) is said to be piloted as an attempt to “continuously explore new pedagogical approaches to enhance the quality of teaching and learning” (Ministry of Education Malaysia, 2013, p. 3-24). Interestingly, the IB Middle Years Programme will use the Malaysian curriculum, and the pedagogical approach will emphasize on “the use of project-based activities and questioning techniques to develop students’ capacity for higher-order thinking skills and to help students see the connection between different disciplines” (Ministry of Education Malaysia, 2013, p. 4-6). What is even more fascinating is it is also explicitly mentioned in the blueprint that IB is being used in over 141 countries and “its graduates’ record of consistently outperforming the OECD average, and A-level graduates at university provide the assurance that it will offer many valuable best practices for the broader system” (Ministry of Education Malaysia, 2013, p. 4-6). From a complexity theory, this again shows that when a system reaches critical mass, new behaviours start to emerge. In this context, the demand to push 21st century learning and higher-order thinking skills results in the adaptation of the IB Programme in Malaysian public schools.

From the IB website, it is clear that IB is being promoted as a tool for nations to meet 21st century learning priorities. The IB MYP School Services Manager, Ashish Trivedi, sounded promising as he stated that many more schools in Malaysia are likely to follow the IB Programmes across Malaysia (“The IB celebrates growth in Asia Pacific”, 2016). By applying the complexity theory, it is clear that the impulse for implementing IB is due to several factors, such as knowledge innovation and negative external evaluations as parents are unhappy that the current education system does not encourage 21st century learning. As IB emerges as a new property within the ecosystem of the Malaysian education system, Agensi Inovasi Malaysia, a statutory body from Malaysia, approached IB for the sole purpose to seek “a curriculum that would allow government secondary school educators to effectively meet 21st-century learning priorities” (“The IB celebrates growth in Asia Pacific”, 2016, par. 5). From the viewpoint of complexity theory, it is clear that there is a sense of adaptation in the implementation of IB. In the Malaysian context, it is by utilizing the Malaysian curriculum and using the pedagogical approaches of IB. Finally, it can be predicted that the IB Programme will have an impact on the existing structure of the Malaysian education system in the near future. With the IB program director feeling certain that more schools will adopt IB, a complexity theorist would state the cooperative interaction between IB and the Malaysian education system would result in the evolution of IB in Malaysia.

5. CONCLUSION

The application of complexity theory has unearthed how IOs are exerting their influence on the Malaysian education system. By analysing the MEB, three concrete themes on the influence of IOs in the national education system emerged. These are an uncritical take on international assessments, the emphasis on decentralization, and the growth of International Baccalaureate.

The discourse analysis underpinned with complexity theory also revealed that the reforms are implemented based on the country's own decision and as a way for agenda-setting. Taking a cue from banal nationalism in PISA, an idea presented by Piattoeva and Trohler (2019), this research has crystallized that PISA not only influences nation-states but if looked through the lens of nationalism and nation-building, PISA rankings are considered to be a source of pride for countries.

Additionally, the decentralization of the education system has enabled the Dual Language Program, a program which utilizes English as a medium for teaching mathematics and science, to be implemented. While this might be a good move in terms of economic gains, there is potential that this will further divide the Malaysian societies in terms of elitism. It is not surprising that since Malaysia is a postcolonial country, English is a marker of social status for the elite. Similarly, this is in parallel with Malaysia's aim to be economically competitive and globally present. Finally, the growth of IB also sees the emergence of a public-private partnership that merits further exploration in the Malaysian education space. The MEB is heavily benchmarked against OECD standards and while it is a product of multistakeholderism, the blueprint was also formulated by McKinsey, a global consultancy group that has a strong neoliberal agenda. Thus, by complying entirely with the MEB, the reshaping of Malaysia's education system is likely to be in line with global trends in education. Further research in this field should look at the emerging trend of public-private partnership in Malaysia, which has been engendered through IOs.

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