

PISA's Influence on educational governance situated in the institutional setting of South Korea

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Abstract

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Introduction

The Programme for International Student Assessment (PISA) has triggered various reactions from different countries, such as shock and surprise, glorification and scandalization or indifference, to name a few. These varied reactions were translated into as diverse impact upon national policies (Steiner-Khamsi, 2004; Grek, 2009; Meyer, 2014). In many countries, PISA acted as an important political resource and contributed to the transformation of education policy (Knodel, Windzion and Martens, 2014). To illustrate, in Germany, the subpar PISA results sparked a heated debate about education policy and reforming the education to focus on measurable competences (Erti, 2006). Similarly, Japan experienced a 'PISA shock' when its ranking dropped in 2003. In response to this, the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) abandoned the contentious *yutori* (low pressure) curriculum policy and introduced national assessment testing (Takayama, 2012). Different stakeholders, even from the same country, interpreted and used the PISA results in varying ways to align with their own interests; that is, they tried to justify or resist proposed reforms based on evidence from internationally comparable data (Grek, 2009; Takayama, 2012).

PISA changed not only the national education policies but also the global educational governance. One of the most significant changes is the increasing use of test-based accountability as means to improve educational quality (Meyer, 2014; Rizvi and Lingard, 2010; Kim, 2020). As PISA quantifies learning outcomes, it has become an important reference in education policy-making among many countries (Wiseman, 2010). As a result, school reform that pursue quantifiable learning improvement has become prevalent, however,

it also led to new paradoxes and unintended effects (Mintrop and Sunderman, 2013). Another noteworthy change, though intangible, is that OECD has created an epistemic community (Haas, 1992) and has facilitated new epistemological and infrastructural modes of global governance in education (Sellar and Lingard, 2014).

South Korea, known for its outstanding performance in the Global Academic Olympics (Spring, 2011), has also undergone education policy and governance change because of PISA. However, the mode and degree to which PISA has influenced the direction of policy and governance in South Korean education are different compared to the western countries. In this respect, South Korea can be another case of 'vernacular globalization' in education policy (Lingard, Martino, and Rezai-Rashti, 2013). In the remainder of the paper, it first reviews the global context of governance change resulting from PISA to situate the Korean responses, followed by presenting the analytical framework. It then provides background information on the local context and discusses the changes of Korea's governance, especially on the actors and tools, in response to the PISA outcome. Finally, the paper explores the shapers of the changes.

PISA and governance turn: global context

PISA is a product of performativity, sometimes referred to as a 'technology' used in contemporary governance (Ball, 2006). Performativity is a "technology and a mode of regulation that employs judgments, comparisons, and displays as a means of incentives and control based on rewards and sanctions" (ibid., p. 144). Numbers, rankings, and statistics, which are the outputs of PISA, are central to the technology of performativity (Lingard, 2011). Numbers externalize the achievement of education, which for a long time seemed to be invisible. Such datafication has happened with the expectation that numbers will transparently show the degree of students' achievement, and the merit of teachers and schools. Indeed, as Rose (1999) noted, "numbers have achieved an unmistakable political power within technologies of government" (p. 197).

PISA outcome-based comparisons are now a basis of international governing (Nóvoa and Yariv-Mashal, 2003). Nóvoa and Yariv-Mashal (2003) stated that comparable measures create a 'mutual accountability', which creates a sense of sharing and participation and makes each country compare themselves to each other perpetually. As one of the most important sources of comparison in education, PISA forms a global education policy field and within the field, educational policies of some countries tend to converge toward the 'best practice' (Andere, 2008). In the past, policymakers were only responsible for the "national eye", but now since the birth of international comparative tests, they have no choice but to check the "global eye" as well (Lingard, 2011). At the same time, as Henry et al. (2001) argue, "the OECD acts as an international mediator of knowledge rather than as a comparative forum alone" (p. 57). The OCED encourages member states to naturally accept the advice or suggestions and exercises the power to define "what can be thought and said". The OECD induces voluntary policy convergence, not by force of imposition of legal harmonization. Although it only exerts soft power such as transnational communication and competitive pressure (Bieber, 2016), over the past two decades, the OECD has become a key player in spreading neoliberal policies (Henry et al., 2001).

Rose (1999) explains the pitfalls of such data-driven governance. Firstly, the relationship between numbers and politics is "reciprocal and mutually constitutive" (p. 198). Many scholars are wary of the common pitfall of assessment-driven policy, as often what is assessed is "what you can assess, what it is (relatively) easy to assess, rather than what you should assess." (Torrance, 2006, p. 825). More importantly, the acts of social quantification is subject to politicization because politics decide not only what, how, and how often of various measurements but also how to interpret the results. Secondly, numbers, as inscription devices, constitute the domain of politics numerically, that is, as a form amenable to the application of calculation and deliberation (p. 198), opening new areas of politicization. Finally, as a part of "the techniques of objectivity that establish what it is for a decision to be disinterested" (p. 199), numbers sometimes make areas of political judgment become depoliticized. Standardized test scores can obscure the persistence of continued inequality and block many profound questions about the causes of achievement gaps and the relationship between education inequity and social inequality (Rutledge, Anagnostopolous and Jacobsen, 2013). Humanity and civic participation are placed behind narrow academic achievement in many international tests.

To highlight the ensuing changes within schools, with data-driven technologies such as student information systems (SIS), the 'policy as numbers' phenomenon is becoming more sophisticated (Halverson and Shapiro, 2013). Networks and databases that make schools visible and knowable have ignited the recent dominant techniques of governing (Ozga, 2009; Ozga et al., 2011). Unfortunately, within the world of datafication of education, children are doomed to be reduced to the school's statistical raw materials, rendering schools to become exam factories (Roberts-Holmes and Bradbury, 2016). Furthermore, while the infrastructure of accountability promotes new levels of cooperation among policy actors, under the test-based accountability which is supported by new tools and techniques, "teachers subordinate their professional judgments and commitments to the cultural authority of data", relinquishing their professional judgement (Rutledge, Anagnostopolous and Jacobsen, 2013, p. 215; see also Hardy, 2020).

With the advent of machine-readable datafication of teaching and learning, further changes in PISA-driven governance of individual schools are expected. This machine-driven changes are expected to lose the human nature, the complexity of learning, and the diversity of education. In a sense, datafication and digitalization of education may be another cruel optimism (Mecgilchrist, 2019). In addition, with the privatisation of PISA test involving Edutech companies that has another goal of pursuing profits, the original goal of the OECD to raise quality and equity of education via the test may become lost (Lewis and Lingard, 2023). In sum, PISA sponsored by the OECD is beyond any test. Over the past twenty years, PISA has been institutionalized as the primary engine in global accountability reform (Meyer and Benavot, 2013). In many countries, PISA strengthened output orientation in education and promoted evidence-based policy-making based on data, especially in terms of the recent phenomenon of policy by numbers (Bieber, 2014; Lingard, 2011; Lingard, Martino and Zezai-Rashti, 2013; Wiseman, 2010). After PISA, the mode of test-based, top-down accountability in education has risen (Lingard, Martino and Rezai-Rashti, 2013). Test-based accountability has prompted states to develop large-scale information systems that collect, process, and disseminate data on schools, teachers, and students' characteristics and performance. Data from these systems are being made available to a growing number of people and is being used to inform decisions both within and outside of the educational

system (Hardy, 2020). Recent introduction of machine-readable datafication of teaching and learning and privatization of PISA test may further dehumanise the global educational governance (Mecgilchrist, 2019). Hosting PISA, the OECD has successfully become a key player in the new global governance in education (Woodward, 2009). By comparison, based on numbers, the OECD could constitute a kind of *global panopticon* (Lingard, Martino and Rezai-Rashti, 2013), and has turned the globe into "a commensurate space of measurement" (Lingard, Martino and Rezai-Rashti, 2013, p. 540).

Analytical framework

Governance is a polysemous concept. Governance refers to a form of social adjustment to solve the problems of any group or organization (Rhodes, 2000). According to Milward and Provan (2000), governance is concerned with "creating the conditions for ordered rules and collective action, including agents in the private and nonprofit sectors, as well as within the public sector" (p. 3). The researchers stated that "the essence of governance is its focus on governing mechanisms that do not rest solely on the authority and sanctions of government" (p. 3). Such governance is shaped up by the actors with diverse degrees of political power and by resources available in the context to mobilise, such as moral (e.g., public sentiments), material (e.g., financial resources) and information (e.g., knowledge) (Knodel, Windzio, and Martens, 2014). Governance understood as such raises the questions of 'who, by what, how is education governed?', to which we will return when discussing the implications of PISA on the educational governance in Korea in the discussion section.

In understanding the mechanism of such governance, this paper intends to make use of the framework of institutionalism. The institutionalism used as a framework for analysis in this paper does not explain social phenomena from atomized individuals, but emphasizes the importance of 'context'. Institution refers to such a context. In a broad sense, institution takes into account formal structures and procedures, long continued and taken-for-granted values, ideas and principles (March and Olsen, 1989). Institutions are structural constraints that affect individual behavior. Under the influence of the system, human actions become stabilized and regulated.

Such 'institutional setting' can be summarised into 1) formal political structures and 2) cultural contexts. When we analyze formal political structures, it is important to analyze the 'accessibility of a political system', which refers to 'the formal institutional arrangement of a political system' (Knodel, Windzio, and Martens, 2014, p. 17). They are classified as a strong state and a weak state. The former is highly centralized, relatively closed, and has very limited opportunities for non-government actors to become involved in the political process. The latter is, in contrast, decentralized, more open, and allows for various interest groups to engage in the policy process (Knodel Windzio, and Martens, 2014). Privatisation is one of the factors that affects the accessibility of a political system, which has a direct impact on the degree of publicness of public education or whether it serves the interest of the majority of citizens (Biesta et al, 2022). The cultural contexts concern the public sentiments and historical relationship toward an issue at hand (Choi, 2019; Poudel and Choi, 2020). For instance, in a context like Korea where education has always been considered as public good (Song, 2006), citizens will strongly resist any policy which potentially disables education from serving the benefit of the majority of citizens.

This understanding of institutionalism will be used in analyzing how the PISA results were accepted and what impact they generated in the Korean education system at a critical juncture when the discourses governing education were to change. Korean education has predominantly been governed by egalitarian discourses since democracy was introduced after the Korean War (Song, 2006). Since 1997 Asian Financial Crisis, however, the strict egalitarianism was being eased as questions about the national competitiveness was raised; the move met an impetus in 2008 when Lee Myung-bak with a business background started his presidency (Choi, 2021). Lee's administration issued a series of policies reflecting neoliberal discourses, which would have effectively abolished the discourse of education as public good. It is when the PISA outcome was first published.

The documents analysed include key documents generated by the Ministry of Education (MoE)/Ministry of Education, Science and Technology (MEST) (e.g., MEST, 2009), other research and advisory reports and media reports referring to the PISA results (e.g., Online Joongang Daily, 2015), which were published since 2008 and widely circulated. In selecting the documents, efforts were made to include those from the conservative, progressive and neutral camps were equally included. As such, about 20 documents were thematically analysed 1) to trace the change in conceptualisation of education as public good; 2) how PISA outcome was accepted and referenced; 3) what policy response was made in response to PISA; and 4) what institutional contexts influenced such responses.

Below, first the findings from the analysis of the institutional setting of Korean education is presented, overall trends in Korea's PISA performance and policy responses are discussed, and their implications are suggested.

The Institutional setting of Korean education

Formal, political structure: coexistence of a centralised control of schooling and power checking systems

Korean education features a strongly centralized educational governance system (Choi, 2017; C Lee, S Kim, W Kim and Y Kim, 2010). The government has the authority to decide key issues in education, such as curriculum, staffing, and budgeting. The educational finances of Korea are more dependent on national taxes than local taxes, and the government has been striving to avoid financial inequalities in regions and schools, in part through funding both public and private schools. Thus, both types of schools have to follow the same national curriculum and textbooks. Since the first Education Law was enacted in 1949, Korea has maintained a national curriculum. As for staffing, Korean law regulates everything from qualifications, promotions, in-service training of both private and public schools (Choi, 2022). In employment and promotion systems, private schools are given more autonomy, while those in public schools are strictly regulated by the government. Teachers in public schools rotate among schools every four or five years, and teachers in private schools under the same sponsors also rotate among their schools. Such highly centralized education system has contributed to equalizing education conditions across the country (Choi, 2021).

Despite such centralised decisions on curriculum and teacher quality (e.g. Lim, 2016; T Kim, 2020), there is an effective system of checking the power of the government on educational matters. Since the 1990s, several parents' organizations and educational NGOs began to be formed. In 1999, the teachers' union was legalized and began to vigorously participated in the educational policy process. Other teachers' associations have exerted considerable influence on education policy as well. A major change, however, took place in 2007 with the direct election of Education Governors of different regions. The Education Governors, based on the increased democratic legitimacy, began a policy competition with the MoE. With these changes, while the government was previously the only policy actor, various policy actors such as superintendents, the teachers' union, parents' organizations, and NGOs have now appeared on the stage of policymaking. As a result, the policy process has become more complicated and the decision-making have become more democratised. Conflicts grew between the MoE which is politically right-wing and Education Governors who have a similar political orientation to the progressive parties (T Kim, 2020). Educational issues have become politicised: the MoE and conservative groups and some professionals have strongly supported the accountability-based education reforms. On the contrary, some Education Governors and the teachers' union have opposed them. Whether the proposed policies concern standardized tests, information disclosure, teacher evaluations, and high school diversification, the two groups have always been in tension (Choi, 2021).

Cultural contexts

Egalitarianism, competition, and high stakes testing. Egalitarianism is one of the most remarkable socio-psychological characteristics of Koreans (Song, 2006). The Korean War obliterated from Korean people of the awareness and practice around social class, as well as property and social status that had been inherited from the past. The war also reminded Koreans that everyone is equal. The authoritative military regime devoted itself to suppressing freedom, not suppressing egalitarian aspirations. Rather, the military regime, in the name of equality, criticized the political failure of the previous regime (Song, 2006). Standing on the ruins after the war, everyone stood at the same starting point, and they all began their race for success. As the social class structure had fallen apart, education in Korea had played a role in class formation, instead of reproduction. In this respect, the characteristic of the expansion of education in Korea is like that of Japan (Kariya, 2001) and differs from that of many western countries.

Under the widely spread atmosphere of egalitarianism, diploma and school grades were regarded as the fairest criteria that could be used in distributing social positions. Since the mechanisms of social screening were not well developed, schools became the most popular selection device. It was natural for many parents to try to get their children into a better school, leading to the fierce competition. Although the Korean government intended to mitigate competition by using a few populist policies, such as abolishing the high stakes entrance examinations in middle school and high school in 1969 and 1974 respectively, they were ineffective. Now the competition simply moved its arena to the entrance exam for higher education.

Education fever vs. humanitarian discourses. It is *Kyoyukyul* (education fever) that characterizes the most prominent feature of Korean education. *Kyoukyul* refers to "the strong socio-psychological motivation of Korean parents to educate their children" (J Lee, 2010, p.

362). The unique education institution and culture of Korea resulted in *Kyoyukyul* (J Lee, 2010; Oh, 2015). First, the open school system and the way to select students, irrespective of their socio-economic status, prompted parents to invest heavily into education. Unlike countries where the opportunity for education is distributed based on the social positions of people, the open school system induced almost all Koreans to enter the competition for more and better schooling. Second, Koreans' preoccupation with credentials and school background (*hakbul*) has strengthened and reinforced *Kyoyukyul*. In Korea, a credential society, the educational background of people affects their marriage, daily social relationships, as well as career prospect. In addition, strong educational nepotism was another cause of *Kyoyukyul* (J Lee, 2010). Despite fierce criticism, school-based nepotism has continued and many parents have been willing to devote their wealth and energy to prepare their children to enter prestigious universities. (for further details about education fever in Korea and issues related, see Choi, 2021).

Fierce competition between students has led to many side effects. The number of students suffering from academic stress has increased, and some students have even committed suicide. In addition, many parents are overburdened with private education fees. According to C Lee, et al. (2010), the total amount spent on shadow education or private tuition is equivalent to nearly half of the government's education budget in Korea. It has been the number one policy goal of the government to reduce private education expenses. In the mid-1980s, when the whole population education was achieved (Joo, Oh and Yun, 2010), it was argued that Korean education is deeply troubled and that the direction of education should be shifted. Some teachers established the teachers' union to lead educational change, with the aim to humanize education. The sayings, "Test scores and entrance exams are not all", "Students must be rescued from the test hells", and "Happiness does not equal test scores" were widespread at that time, and they have contributed to the basis of President Park, Keun-Hye's *Happy Education*, instituted in 2014, and *Assessment-Free Year Policies*, which were trialled in 2014 as a semester programme. The latter then expanded to a year programme in 2016 (SW Kim and LY Kim, 2021).

PISA performance of Korea: outstanding but unbalanced success

Korean students have shown outstanding performance consistently in various comparative studies of achievement, including PISA (See Table 1) and the Trends in International Mathematics and Science Study (TIMMS).

Table 1 Korea's overall ranking of PISA performance among OECD countries.

	2000	2003	2006	2009	2012	2015	2018
Math	3 rd	3 rd	1 st	4 th	1 st	1st -4th	1 st -4 th
Science	1 st	4 th	7^{th}	6^{th}	2^{nd} - 4^{th}	5^{th} - 8^{th}	3^{rd} - 5^{th}
Reading	6^{th}	2^{nd}	1 st	2^{nd}	1st- 2 nd	3^{rd} - 8^{th}	2^{nd} - 7^{th}

According to the PISA results from 2000 to 2012, Korea has large proportions of students performing at the highest level, with relatively few students at the lower level (OECD, 2010a). In addition, the gap between high- and low-performing students in Korea is much narrower than that in other OECD countries (OECD, 2010a). Notably, many international tests indicate that student achievement in Korea is not strongly related to the socioeconomic

status (SES), compared to students in other OECD countries (OECD, 2010b), showing that the schooling in Korea is relatively equitable in comparison to other countries.

In contrast to the competitive performance in the series of tests, which was acclaimed internationally, Korean students showed fairly low interest and confidence in learning. Educators, the MoE, and the media commonly noted their surprisingly low level of happiness (in 2015, the country ranked second last among 72 participating countries and economies), and far-below-average level of academic confidence and interest (Choi, 2021). Their ratings of the affective domains of learning, such as learning motivation, interest, and self-efficacy of self-directed learning, have also been noticeably low (K Kim, 2010). Thus, whenever the PISA results are released, Korean media always report the result with paradoxical emotions.

Korea's responses to PISA outcome

PISA as a political resource

PISA functioned as a political resource, which has (1) proven the excellent academic achievement of Korean students despite then critical discourse about the direction of educational policy, and (2) revealed the existing problems of the affective aspects of education, such as learning interest and motivation. Educational policy has long been a political matter than an educational one. Traditionally, the conservative parties have created and promoted policies that reflect elitism and competition, while the progressive ones have supported egalitarianism, equality and support for marginal groups of students (Choi, 2021). Before the outcome from the 1st PISA test was released, the conservative had argued that because of the High School Levelling Policy, which has been implemented for over 30 years, Korean students' overall academic performance had deteriorated. The PISA results debunked this claim, strengthening the foundation for progressive educational policies to be maintained, especially the two acclaimed successes in 2008 and 2012. It is also noteworthy that PISA affirmed the often-discussed issue of students lacking learning motivation and confidence, urging the government to take more aggressive actions to resolve the issue. However, the conservative also defended their position, quoting the PISA results. Since 2009, PISA results started to show that the proportion of underachieving students has been gradually increasing (MoE, 2019). Conservative parties argue that progressive education reform has lowered students' basic academic skills, and PISA results prove this.

PISA results, however, tipped the balance for progressive by changing the reference contexts for policy borrowing. Prior to PISA, Korea had been drawing reference from the education policies in Japan through the means of 'silent borrowing' (Waldow, 2009); soon after the Korean War, Korea also started to draw reference from that of the US (Choi, 2021). While the results in PISA 2009 aroused the interest of Western educators to study the education policies in Shanghai (Sellar and Lingard, 2013), Korea turned its eyes to Finland, which was one of the top-ranking countries in PISA 2003 and 2006. The 'Finnish boom' led many educators and policymakers to conduct research in Finland, which was still fending off neoliberal educational reforms (Takayama, 2010). As the Korean media portrayed Finnish education under the title "There is no competition in Finnish education" and "There is no standardized test in Finland", it provided progressive educators in Korea with moral resources to promote the slogan "from ranking to growth and happiness" and "not education

for the test but education for the whole person", gaining support from the vast majority (SW Kim and LY Kim, 2021). The success of Finnish education in PISA, thus, provide another argument for the progressive to maintain existing equality policies and institute new ones.

Provision of such moral resources plays an important role in setting the direction of educational policy for the following years. In the mid to late 2000s, Korean education was at the crossroads of either accelerating neoliberal policies or completely shifting the policies' direction. In Korea, National Assessment of Educational Achievement (NAEA), a standardized nation-wide test is being used in data-based policymaking, and identifying children with poor academic achievement to provide them with supplemental education programs. Although the MoE had no plan to keep track of individual student achievement, the Korea Institute of Curriculum and Evaluation tested and announced individual schools' achievements every year (KICE, n.d.). The media often cited the outcome and suggested the directions of policy, to which the MoE would respond. From 2009 to 2016, all schools were tested instead of a sample of them. It is worth noting that while the test results were not tied to teacher merit pay or school evaluation initially, from 2011, 20% of teacher merit pay, nonetheless, was later decided to be based on the test results (Choi, 2013). However, with the endorsement of the progressive line of policies by the public through a series of elections (Choi, 2021), and with the continuous resistance by the Korean Teachers' Union, the school performance criterion was abolished from teachers' merit pay as of 2016 (Anon, 2015). The turn of the events show how easily datafication under the accountability-driven policies can instigate the neoliberal turn of policy, though for the Korean case, it was stopped with the public support through election and through some select teachers' unionised, collective action.

Governance turn, but unsettled

Along with many other countries, Korea has subjected itself to the PISA-endowed OECD's "global panopticism" (Lingard, Martino, Rezai-Rashti and Sellar, 2015, p. 6), and been governed by the regime through faithful test-taking, as well as being compared, reported on, and issuing educational reforms in response to the changing rankings. However, the obedience was only to that far. Korea's responses showed features which are distinctive to that of many western countries. To explore the differences, the central question of "who, for what, and how is education governed?" is discussed below.

First, regarding "who governs education", many western countries carried out top-down accountability reforms, which serves the purpose of re-bureaucratizing the education system, granting the state or central government more power (Lingard, Martino, and Rezai-Rashti, 2013; Mintrop and Sunderman, 2013). In addition, evidence-based policymaking and the datafication of education have made private institutions, which mine, produce, process, and analyze various data related to tests, engage in the education policy process (Fenwick, Mangez and Ozga, 2014). In Korea, however, strengthening the authority of the government or bureaucratisation did not happen. It is perhaps because of the following structural and contextual features: the already strong presence of the government as noted above; emerging new actors such as the Educational Governors were decentralising educational policies; teachers and parents were checking the power of the government through strong unions and frequent elections; and upfront participation of private enterprises in education is a taboo

(Choi, 2021). The School-based Management System have also added a high degree of autonomy to individual schools (A Kim, 2005).

Second, "for what" of the governance, a large amount of research unveiled that, in many countries, various comparative international tests and international organizations like the OECD have decisively contributed to education marketization, and the fierce competitions among countries have fueled the internalization of education through comparative tests (Henry et al., 2001; Pereyra, Kotthoff and Cowen, 2011). On the other hand, in Korea, although international competitiveness has been a critical driving force, the number of people, who think that it is time to educate individual students for their growth and happiness, not education for national development, has been consistently increasing. The above discourse was in fact supported by the PISA outcome, which placed Korean students as one of the unhappiest (So and Kang, 2014). It should be noted, however, that since the late 2010s, conservative parties are intensifying their criticism that the policies of the progressive superintendents have lowered students' basic academic abilities. Such accusation possibly opens a path to regain the conservative's control over educational governance, to return to elitism and reinstitute national standardized test-driven governance.

Third, when it comes to "how" education is governed, many countries internalised and replicated the PISA mechanism of comparisons, that is, the policy as numbers, datafication of education, and evidence-based policymaking (Anagnostopoulos, Rutledge, and Jacobson, 2013; Fenwick, Mangez, and Ozga, 2014; Grek, 2009; Lingard, 2011; Lingard, Martino, and Rezai-Rashti, 2013; Nóvoa and Yariv-Mashal, 2003; Ozga, 2009; Ozga, Dahler-Larsen, Segerholm, and Simola, 2011; Steiner-Khamsi, 2014). In Korea, however, the move to datafication, quantification, and competition started in the 2000s, but lost its impetus in the late 2000s due to the emergence of the direct election of Education Governors, with the result that most of the elected members have progressive educational perspectives. Thus, the NAEA initiative mentioned above became simplified (KICE, n.d.), and school evaluation is conducted at the discretion of the Education Governors (Chung, Kang and Seul, 2017; Han and Kim, 2008). Initiatives such as Gyowonneungnyeokpyeongga [Teacher competency assessment], which allowed quantification of teacher quality through a survey conducted with parties such as students and parents, is also to be simplified, and schools will be given more autonomy with its design and the usage (Ministry of Education, 2021). As such, the established monitoring and quality control systems have been gradually and categorically weakening in recent years. As an alternative to the neoliberal control mechanism, educational reformers in Korea have made various efforts to build a professional learning community within schools (M Lee and J Kim, 2016; Shin and Son, 2018). At the same time, however, the argument that the national standardized test must be reinstituted has also restarted, noting the increase of underperformers. Those in favour of its reinstitution argues that utilizing datafication of education will help achieving quality education for all. After all, it may be a matter of time for South Korea to follow suit with other countries in being subject to the tyranny of PISA regime, due to the normalisation of online in the post-covid world (Tesar, 2020) including machine-readable datafication of teaching and learning (Mecgilchrist, 2019).

Finally, with the PISA comparison system, while many western countries have paid attention to the output of education and the test score, Korea has instead put a lot of effort into improving the input and process of education, due to the washback effects of demotivation, low level of happiness and high suicide rates of students (So and Kang, 2014). This trend is

expected to continue, despite the decline in rankings. Although the performance of the last two tests were less impressive in comparison to the previous rounds, the government's responsibilities, as reflected in the official circular for media and the governmental research institute report, are to improve students' level of happiness and motivation, and make the direction of education to be focusing on 21st century skills such as creativity (Ministry of Education, 2019; Yi et al., 2020).

Concluding remarks

PISA rightly redrew the attention of educators and policymakers to the outcome of education in addition to the input or process. While it raised concerns due to its ideological underpinning and narrowing of the curriculum (e.g., Lingard, Martino, Rezai-Rashti, and Stellar, 2015), it provided one reference point for them to evaluate the relative strengths and weaknesses of their education systems in comparison to other countries to improve them. However, politicians and researchers alike must be wary of the potential negative impact such as narrowing down the curriculum (Torrance, 2006) and obscuring of equity issues (Rutledge, Anagnostopolous and Jacobsen, 2013). The changes in the governance of PISA itself, including privatisation and introduction of machine-readable datafication, may bring new issues such as dehumanisation of educational governance (Mecgilchrist, 2019). The degree and its implications require time to be fully grasped.

In Korea, it proved the academic forte of the Korean education system, and the knowledge gained from PISA, e.g., students' alarming underperformance in affective areas, started a series of changes that recentred the national curriculum on students' well-being and motivation. This was in part because the structural devolution of decision-making and the power-shifting election system empowered educational progressives in Korea. Although not as influential as in some countries, PISA results, as a political resource that made the preservative arguments futile, contributed to the change of direction of Korean education that countered the neoliberal changes, which were gaining strength previously. The resultant new education policies, arguably, though possibly temporally, halted test-based education and data-driven accountability, and altered the education dynamics to be more humanized and democratized. In many western countries, the age of professional accountability was replaced by a regime of neoliberal corporate accountability in the governance of education (Ranson, 2003). On the contrary, in Korea, neoliberal accountability is being replaced by 'professional accountability' (Hardy, 2020), which cultivates individual educators' professional judgement and is supported at school and system levels, as So and Kang (2014) suggests. The new burgeoning governance of education in Korea, however, has not been settled yet and at the juncture to evolve into completely different scenarios. One is that the new governance mechanism in Korean education supplies an alternative governance model beyond a neoliberal one; another is Korean education falls into the swamp of the teacher republic (Dobbins, 2014); and there may still be other scenarios.

However, this positive impact is subject to change due to the local politics. After all, political system mediates the PISA effect (Lingard and Lewis, 2017). In Korea, conflicts between political parties over education are severe, and it also translates into conflicts over policy direction between the central (relatively conservative) and local governments (relatively progressive) (Choi, 2021). As many examples have already shown, PISA results are

interpreted selectively, and policy makers use PISA to project their ideological agendas (Morris, 2012; Grey and Morris, 2018), as was the case in other countries. In Korea, political parties and educational leaders are using PISA to justify their own policies by selecting contents that suit their tastes. While some observe that PISA does not actually bring about significant change, and is only used as a pretence to justify existing policies domestically (Rautalin, Alasuutari and Vento, 2019), amidst tense domestic conflicts over the direction of education policy, external authoritative results such as PISA act as a fairly powerful political resource, which can be appropriated by any party.

While the OECD's influence has been significant, in recent years, the policy recommendations of the OECD have begun to be critically reviewed. The fact that the newly revised national curriculum in 2015 actively accepted the concept of competency proposed by the OECD, is evidence of the impact of the OECD on Korean education. At the same time, rather than simply subjecting itself to the comparative panoptic regime created by PISA, the MoE is taking a cautious stance in interpreting and using the outcome in making policy decisions. As the state is realised in an intricate balance among multiple factors, the direction may change suddenly to a direction unanticipated. In addition, this study is based on the official, final policy documents. The policymakers may have other insight into the policy decision making and the changes in educational governance in response to PISA. Future studies may want to undertake in-depth first-hand interviews to bring their perspectives into relevant debates, especially considering the research gap in this regard-most draw on document or secondary data analysis, interviews with private parties or school staff. Finally, how future developments between PISA and Korea will affect Korea's educational governance remains to be seen – Korea has begun to participate in the PISA for Development project (PISA-D) as a mentor country, and in the future, international organizations including the OECD are sure to demand more roles from Korea, paving its way to be incorporated more deeply into the Global Education Policy Field. However, as for the time being, the Korean case shows that PISA in itself is not the harbinger of neoliberal datafication of educational governance.

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Notes

²·A couple of scholars attributes this equitable, competitive performance to the NAEA, the yearly conducted, nation-wide standardised achievement test, arguing that it prepares Korean students to international test such as PISA and TIMSS (Kim, 2020). However, the general disinterest of students in the test (Park, 2015) and the fact that the test has been conducted only with limited number of sample schools since its launch in 1998 (KICE, n.d) disproves this claim.