

PISA: An influential factor of educational policy and agenda change in South Korea

Yong Kim (Cheongju National University of Education)

I. Introduction

The Programme for International Student Assessment (PISA) has triggered various reactions from different countries. Scandalization, shock, glorification, promotion, surprise, or indifference describe the different kinds of responses to PISA and imply very different effects on national policies (Steiner-Khamsi, 2004; Grek, 2009). In Germany, the lower than expected results in PISA sparked heated debate about education policy and reform (Erti, 2006). Similarly, Japan experienced a ‘PISA shock’ when their ranking dropped in 2013. In response to this, the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) reversed a contentious *yutori* (low pressure) curriculum policy and decided to introduce national assessment testing (Takayama, 2012). In contrast, the UK, New Zealand, and the United States did not show any noticeable change in national education policy agenda in response to PISA rankings (Breakspear, 2012). As countries vary in their responses, some stakeholders within countries have attempted to interpret and use the PISA results to suit their own needs. Since the PISA results might have different meanings to various policy actors, they tried to justify and legitimize or oppose proposed reforms base on evidence from internationally comparable data (Grek, 2009; Takayama, 2012). In many countries, as an important political resource, PISA contributed to the transformation of education policy (Knodel, Windzion, & Martens, 2014).

PISA not only changed individual education policies nationally, but also shifted education governance globally. It is said to be a direct result of PISA that test-based education governance has strengthened around the world. Because PISA produces various data represented by numbers, the test results have become one of the most important pieces of evidence in education policy-making (Wiseman, 2010). As PISA results are considered important in many countries, data-driven school reforms are widely spreading, resulting in new paradoxes, unexpected developments, and unintended effects (Mintrop & Sunderman, 2013). Furthermore, the Organization for Economic Co-operation and Development (OECD), the host of PISA, has promoted the globalization of education policy. As an epistemic community (Haas, 1992), as well as a platform for domestic decision-makers, the OECD has exerted soft power to many countries through political dialogue, the exchange of ideas, and conferences (Bieber, 2016). As Sellar and Lingard (2014) argue, PISA, and more broadly, the OECD’s education work, have facilitated new epistemological and infrastructural modes of global governance in education.

South Korea, one of the winners of the Global Academic Olympics (Spring, 2011), has also undergone education policy and governance change as a result of PISA. However, the mode and degree in which PISA has influenced the direction of policy and governance change in South Korean education is somewhat different than that of many western countries. In this respect, South Korea can be another case of ‘vernacular globalization’ (Lingard, Martino, & Rezai-Rashti, 2013) of education policy. Reviewing global context of governance change as a result of PISA, this paper examines the development of Korean education policy with a focus on the influence of PISA and its impact on education governance in South Korea.

II. PISA and governance turn: Global context

PISA is a product of performativity, sometimes referred to as a technology of contemporary governance (Ball, 2006). However, PISA, in turn, strengthens the governance of education more through performativity. Ball (2006) defines “performativity as 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” (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. Numbers can not only transparently show the degree of students’ achievement, but also the merit of teachers, as well as schools. Rose (1999) said that “numbers have achieved an unmistakable political power within technologies of government” (p. 197). He made interesting points about political numbers. First, the relationship between numbers and politics is “reciprocal and mutually constitutive” (p. 198). He states that acts of social quantification are politicized 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). 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 depoliticize. 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 equity and social inequality (Rutledge, Anagnostopolous, & Jacobsen, 2013). In addition, according to Torrance (2006, p. 825), PISA and other international tests have a danger in that they assess “what you can assess, what it is (relatively) easy to assess, rather than what you should assess.” Humanity and civic participation are placed behind narrow academic achievement in many international tests.

With the advent of data-driven technologies such as student information systems (SIS), the policy as numbers phenomenon is becoming more sophisticated (Halverson & Shapiro, 2013). The recent dominant techniques of governing have been ignited by networks and databases that make schools visible and knowable (Ozga, 2009; Ozga et al., 2011). As Fenwick, Mangez, and Ozga (2014) maintained, data can transform such a complex education arena into practices of calculation. A database-driven system also makes learning something knowable, measurable, and calculable (Williamson, 2014). Unfortunately, within the world of datafication of education, children are doomed to be reduced to the school’s statistical raw materials, making it difficult to avoid schools becoming exam factories (Hutchings, 2015; Robert-Holmes & Bradbury, 2016). Furthermore, while the infrastructure of accountability promotes new levels of cooperation among policy actors, under the test-based accountability supported by new tools and techniques, “teachers subordinate their professional judgments and commitments to the cultural authority of data” (Rutledge, Anagnostopolous, & Jacobsen, 2013, p. 215).

Meanwhile, comparisons are now a basis of governing (Nóvoa & Yariv-Mashal, 2003) and quantification by numbers is well suited for comparisons. Nóvoa and Yariv-Mashal (2003) stated that comparable measures create an ‘international spectacle’ that deeply influence the

formation of new conceptions and policies of education. In addition, ‘mutual accountability’, which creates a sense of sharing and participation and makes each country compare themselves to each other perpetually, is achieved by way of comparison. 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). Furthermore, in the past, policymakers were only responsible to the "national eye", but now since the international comparative tests, they have no choice but to check the "global eye" as well (Lingard, 2011).

In a nutshell, combined with comparisons, various comparative data produced by data-driven technologies lead to governance turn. Data and comparisons are central to the governance turn, since without data there can be no comparisons and without comparisons there can be no control (Ozga, 2009). It is interesting that data-driven technologies can serve as systems of surveillance (Anagnostopoulos & Bautista-Guerra, 2013) and comparisons alone lead to self-regulation of those involved. Datafication, policy as numbers, and comparisons redefine public education. Williamson (2014) states that under the new governance “education is to become a self-regulating system which uses database-driven processes both to generate new pedagogies and as comparable evidence in a wider global policy competition” (p. 220).

On the other hand, as administer of PISA, we cannot help but discuss the role the OECD plays in new governance in education. According to Archer (1994), international organizations (IO) such as the OECD can be a policy instrument that may be utilized to detect policy problems, provide policy actors with information, or justify the established policy. IO, as a policy arena, can be a platform as well as meeting place where members can discuss common interests and share their ideas. Finally, IO can also be a policy actor, who is independent of its member states, and may perform its own activities directly. Reviewing the work of the OECD, Henry et al. (2001) argue that “the OECD act as an international mediator of knowledge rather than as a comparative forum alone” (p. 57). In addition, they state that IOs encourage member states to naturally accept the advice or suggestions of IOs and IOs exercise the power to define “what can be thought and said” at any given time. It is worth noting that the OECD induces voluntary policy convergence, not by force of imposition or legal harmonization, but by soft governance such as transnational communication and competitive pressure (Bieber, 2016). Looking back over the past two decades, the OECD has played a key role in spreading neoliberal policies (Henry et al., 2001).

In sum, PISA, sponsored by the OECD, is beyond any test. Over the past fifteen years, PISA has been institutionalized as the main engine in global accountability reform (Meyer & 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 new phenomenon of policy by numbers (Bieber, 2014; Lingard, 2011; Lingard, Martino, & Rezai-Rashti, 2013; Wiseman, 2010). After PISA, the mode of test-based, top-down accountability in education has risen (Lingard, Martino, & Rezai-Rashti, 2013). Furthermore, a powerful infrastructure of accountability (Anagnostopoulos, Rutledge, & Jacobson, 2013) has been built up in many countries.

Additionally, PISA contributed to promoting globalization of education policy. Hosting PISA, the OECD began to play a very important role 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, & Rezai-Rashti, 2013). The OECD has turned the globe into “a commensurate space of measurement” (Lingard, Martino, & Rezai-Rashti, 2013, p. 540), and as a new and important policy actor, has a great influence on the education policy of each country.

III. Analytical Framework

PISA, as an exogenous variable, caused a change in Korean education. In order to grasp the impact of PISA on Korean education, this paper intends to make the use of the analytical framework for analyzing the responses of many countries to the internalization of education policy (Knodel, Windzio, & Martens, 2014). The analytical framework is based on two theoretical arguments. First, the policy actors’ responses to change are influenced by the characteristics of a country’s institutional setting. An ‘institutional setting’ includes both formal political structures and cultural contexts. When we analyze formal political structures, it is particularly important to analyze ‘accessibility of a political system’ that refers to ‘the formal institutional arrangement of a political system’ (Knodel, Windzio, & Martens, 2014, p. 17). As for accessibility of a political system, they are referred to as a strong state and 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 has more opportunities for various interest groups to engage in the policy process (Knodel, Windzio, & Martens, 2014).

Second, it is the availability and accessibility of resources that are crucial for policy actors to engage actively in the political process. Within a political sphere, various political resources are unevenly distributed. While political actors with more powerful resources can effectively perform political action, other actors with relatively little resources are disadvantaged. There are four important political resources: moral resources that include the support for political actors by external actors; material resources that include money and offices; information resources that include access of policy actors to knowledge and information that is of interest; and human resources that include people who are willing to devote their time and energy for the political groups (Knodel, Windzio, & Martens, 2014).

On the other hand, governance is a polysemous concept as well. In general, governance refers to a form of social adjustment to solve the problems of any group or organization (Rhodes, 2000). According to Milward and Provan (1999), 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). In this paper, for the convenience of analysis, the governance of education is approached based on the central question of ‘who, by what, how is education governed?’

IV. The Institutional Setting of Korean Education

1. Strong state and education for development

Korean education features a strongly centralized education governance system (Lee, C., Kim, S., Kim, W., & Kim, Y., 2010). The government has the authority to make decisions about key issues in education such as curriculum, staffing, and budgeting. Since the first Education Law was enacted in 1949, Korea has maintained a national curriculum. As for staffing, everything from qualifications, promotions, in-service training, and deployment of teachers are regulated by Korean law. The law on teacher personnel affairs applies not only to public schools but also to private schools. 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. Although there are many private schools in South Korea, and the proportion of school students who attend is over 40%, private schools have not enjoyed much autonomy in many respects. Private schools have to follow the same national curriculum and textbooks as public schools. Furthermore, many high schools in city areas cannot exercise the right to choose students. The government initiative of education has contributed to the efficient development of education in Korea. Moreover, the highly centralized education system has contributed to equalizing education conditions across the country (Lee, C., Kim, S., Kim, W., & Kim, Y., 2010).

By the 1980s, the central government had exercised almost all of its power to education policies. Although the board of education was a legal entity, it did not function at all. The superintendents of the boards were appointed by the President of South Korea. The boards were only responsible for delivering the policies decided by the central government to each school. The teachers' association, a conservative group, was organized early, but was only able to be involved very limitedly in the education policy process. The teachers union, a progressive group which intended to participate actively in the policy process, existed for a very short period of time. In addition, although interest groups in education began to organize in the 1960s, they could not play a meaningful role in the policy process. Non-government organizations in education only appeared in small numbers in the late 1980s. Moreover, in schools, principals executed the strongest form of power, and teachers' councils were not organized. In addition, although student councils and parent associations were organized, they were unable to engage in the policy process.

Meanwhile, it is a common understanding that one of the most important factors behind the remarkable economic growth of South Korea is its rapid expansion of education. In Korea, education has indeed played an important role in achieving political democracy, as well as economic development (Lee, C., Kim, Y., & Byun, S., 2012). As economic development became the most important goal of national policies, the idea that education should contribute to economic growth was naturally accepted (Chung, B., 2010). Moreover, the military regime further strengthened nationalistic education. Although an individual person invested in education for achieving her or his fame and prestige, the idea of education for economic development was deeply imprinted on each person.

2. Egalitarianism, Competition, and High Stakes Testing

Egalitarianism is one of the most remarkable socio-psychological characteristics of Koreans (Song, H., 2006). The Korean War deprived Korean people of the consciousness 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. At that time, 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 overturned regime (Song, H., 2006). Standing on the ruins after the war, everyone stood at the same starting point, and they all began their race for success. Because there were no social classes that could be reproduced by education, education in Korea had played a role not in the reproduction of social classes, but in class formation. In this respect, the characteristic of the expansion of education in Korea is like that of Japan (Kariya, 2001) and is different 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, and the competition for entering better schools became increasingly fierce. Although the Korean government intended to mitigate competition by using a few populist policies, such as abolishing entrance examinations to middle school and high school in 1969 and in 1974 respectively, such policies were unable to relieve parents' competitive desires. The entrance examinations to middle school and high school had been high stakes examinations in which the test had a strong impact on the reputation of schools, as well as the future of students. The university entrance examinations have always been high stakes tests.

3. Education Fever and Private Education

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" (Lee, J., 2010, p. 362). The unique education institution and culture of Korea resulted in *Kyoyukyul* (Lee, J., 2010; Oh, S., 2015). Firstly, the open school system and the way to select students irrespective of their socio-economic status prompted parents to send their children to school. Unlike countries where 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. Secondly, Koreans' preoccupation with credentials and school background (*hakbul*) has strengthened and reinforced *Kyoyukyul*. In Korea, a highly credentialed society, the educational background of people affects marriage customs and daily social relationships, as well as the job market. In addition, a strong kind of educational nepotism was another cause of *Kyoyukyul* (Lee, J., 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. Finally, the populist policies fueled Koreans with aspirations for more and better education. While the authoritarian regime imposed populist policies to discourage people's complaints about the fierce competition for the entrance examination, the policies instead heated up the competition.

Combined with *Kyoyukyul*, the gap between supply and demand of educational opportunities resulted in the expansion of private education. Like many other countries (Lee, C., Park, H., & Lee, H., 2009), shadow education is thriving because of the desire for credentials, high-stakes testing, and characteristics of the public school system. Because the government has tried to minimize the gap between schools and make the conditions of academic competition

within a school uniform, many parents have turned their attention to ‘out-of-school’ education with the intention of helping their children get better scores through private tutoring, even at a considerable cost.

4. The Discourse of Humanization of Education and School Autonomy

Fierce competition between students has led to numerous side-effects. The number of students suffering from academic stress has increased, and some students have even committed suicide. In addition, many parents are still burdened with private education fees. According to Lee, C. et al. (2010), the total amount spent on shadow education 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 lessen private education expenses. In the mid-1980s, when the quantitative expansion of education in Korea was achieved, it was argued that Korean education is deeply troubled and that the direction of the education should be shifted. Some teachers who tried to establish a teachers union lead the change of education, appealing to humanization of education. The sayings, “Test scores and entrance exams are not all”, “Students must be rescued from the test halls”, and “Happiness does not equal test scores” was widespread at that time. Although the military government did not allow the establishment of a teachers union, the discourse of humanization of education that was appealed by leaders within the teachers union had a great impact on Korean society.

Meanwhile, as the military regime, which lasted more than 30 years, came to an end, the direction of education began to change. Many professionals pointed to a uniform and centralized education system as a legacy of the long-lasting military regime (Chung, B., 1993). At that time, ‘autonomy’ and ‘diversity’ of education became new buzz-words within Korean education. With these new discourses, Korean education prepared for the start of the 1990s.

V. The Reaction to PISA in Korea: Puzzling within Acclamation

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

Table 1 Korea’s overall ranking in PISA

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

According to the PISA results, Korea has not only large proportions of students performing at the highest level, but also 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). Moreover, student achievement in Korea is not strongly related to socioeconomic background (OECD, 2010b). Many international tests show that Korean students tend to perform very well regardless of their SES, compared to the

students in other OECD countries (OECD, 2010b). In sum, Korea is one of the few countries that has achieved both equity and excellence.

In spite of their high performance on tests, however, Korean students showed low interest and confidence in learning. Moreover, characteristics of almost all the affective domains of learning, such as learning motivation, interest, and self-efficacy of self-directed learning, have been noticeably low (Kim, K., 2010). The various international tests shows the contradictory results of Korean students: high academic achievement but low interest in learning.

Whenever the PISA results were released, the media in Korea reported that with praise. In the beginning, like Finland (Lundgren, 2011), it was indeed a shock to be the best in Korea. But praise was accompanied by puzzlement. When the results of PISA 2003 were released, Korea was in the midst of a controversial debate about the decline of student achievement. At that time, some had argued that due to the High School Equalization Policy which lasted over 30 years, Korean students' overall academic attainment deteriorated. PISA, however, showed totally different results. In addition, since it was memorization and drill that was thought to be a long-lasting feature of Korean education, educators had worried about their students' low problem-solving ability. Korean students, however, came out on top in the problem solving section of PISA 2003. Moreover, nobody gave a clear explanation about Korean students' high achievement. On the other hand, educators and the MoE, as well as media, noted that Korean students were not happy and their academic confidence and interest was low.

VI. The Development of Korean Education since the 1990s

1. Education Reform in 1995 and the attachment of GERM

It was the education reform in 1995 when Korean education encountered *travelling reforms* (Steiner-Khamsi, 2014). Early education reform proposals, which were initiated by the first civilian president and formulated around the year of 1994, included lots of traditional prescriptions for education. That is, the input-oriented policies such as securing quality teachers, reducing the number of students per class, and expanding educational finance. The bureaucrats of the MoE, who were dispatched to the OECD, however, played an important role in dramatically changing the direction of education reform. Korea began preparations for joining the OECD from the beginning of the 1990s and joined that organization in 1996. The Korean government has dispatched bureaucrats to the OECD since 1991. Devolution-centered education policies, which were discussed among OECD member countries since the 1980s (Whitty, Power, & Halpin, 1998), were transmitted by the bureaucrats. New policies, that is global education reform measures (GERM), such as teacher evaluation, school evaluation, teacher merit pay, school choice, financial support through evaluation, and new school governance structure, which were far from the traditional reform measures in Korea and output-centered policies, were implemented in turn. Because the OECD was a developed country club and Korea was about to enter this club, the OECD was placed in the same position as a 'missionary' in Korea, and the OECD's recommendations were accepted as the

best answers. Korea became incorporated into the global education policy field (GEPF) (Lingard & Rawolle, 2011) since the education reform in 1995 (Kim, Y., 2017).

2. Standardized Test and *Hakyohyoksin*

Although the global education reform measures began to be administered after the mid-1990s, neo-liberal education reform did not function well since there were no monitoring systems that were the focal point of neo-liberal reform. The conservative government decided to implement two very important policies to make the neo-liberal reform package complete in 2008. One was the standardized test on all students nationwide and the other was information disclosure about schools. The standardized test made it possible to make teacher evaluations and teacher merit pay operate based on ‘clear evidence’, and the information disclosure was expected to help parents with comparing and choosing schools for their children.

On the other hand, in the same period, a different reform had begun in local government. In 2007, the first superintendent election was carried out and several elections have taken place since then. Despite some criticism, the new superintendent election system has made a dramatic change in Korean education. Most of all, the appearance of many “progressive” superintendents has been a catalyst for great change. After the new election for superintendents, the relationship between the government and local education government became more lateral. Although the newly elected superintendents had more democratic legitimacy, the central government officials would not cooperate with them. It is interesting to note that the MoE and the progressive superintendents conflicted around neo-liberal education policies. The progressive superintendents opposed neo-liberal policies initiated by the central government. Furthermore, newly elected superintendents introduced very new policies like education welfare policies, including free lunch and student human rights ordinance, breathing new vitality into Korean education policy (Kim, Y., 2015).

It was a blessing to Korean education that the teacher-led, autonomous school change movement encountered the progressive superintendents. In the 2000s, some teachers, who had strived for *Chamkyoyook* (authentic education) and members of teachers unions, started a campaign to reform public schools. They pursued school reform that was completely different from neo-liberal reform. They endeavored to save the small schools that were at a risk of being closed down and to practice a new form of education. In other words, they initiated and implemented a student-centered curriculum, created a system of self-government for the school that ensures the participation of students and parents, as well as teachers, and moved to eco-friendly school environments (Jung, J., 2014). Such teacher-led movements for school change widely spread thanks to the progressive superintendents. They regarded the new teacher-led movement as the policy of *Hakyohyoksin* (comprehensive school change) and supported the movement. The progressive superintendents’ policies gained public support, and as a result, the number of progressive superintendents has increased from 1 out of 17 in the 2007 election to 6 out of 17 in 2010, and then 13 out of 17 in 2014.

The election of many progressive superintendents has led to change in education policy. After the presidential election in 2012, the standardized test at the elementary school level was converted to a sample test, and in 2017, the same change took place in middle and high schools. The new president pledged to change the stratified high school system into an equal

system, and teacher evaluation and teacher merit pay policy is currently under review. In short, a comprehensive review of neoliberal education policies has been under way since the launch of the new progressive government.

VII. Discussion: PISA's impact on the Change of Korean Education

1. From Strong State to Weak State

In the 1990s, the structure of education policy-making in Korea changed dramatically. Several parents' organizations and educational NGOs began to be formed. In 1999, the teachers union was legalized, and began to vigorously address the educational policy process. The teachers association, which had existed for a long time, also tried to engage in the process of education policy competitively. In addition, the local autonomy system of education was revived in 1991, but for a time the system did not work well. A major change, however, took place in 2007 with the direct election of superintendents. The superintendents, based on the increased democratic legitimacy, began a policy competition with the MoE. Since the 1990s, when it comes to education, Korea has shifted from a strong state to a weak state. In the past, the government was the only policy actor, but various policy actors such as superintendents, the teachers union, parents' organizations, and NGOs appeared on the stage of policy. As a result, the policy process has become more complicated and the authority of the government has relatively fallen. It is interesting that many education policy actors have been divided into two groups according to the pros and cons of neo-liberal education policies. The MoE and conservative groups and professionals strongly supported the accountability-based education reform. On the contrary, the superintendents and the teachers union opposed it. Whenever standardized tests, information disclosure, teacher evaluations, and high school diversification policies were implemented, conflicts between the two groups were severe.

2. PISA as a political resource

In the midst of conflicts over educational issues, PISA functioned as a political resource. PISA has confirmed two facts to Korean educators and citizens: (1) although Korean students have excellent academic achievement, (2) there are serious problems in terms of effective aspects of education, such as interest and feelings of happiness; the latter was once again confirming the fact that Koreans had known, and it pressured the government to take more aggressive measures. The former provided the basis for advancing the direction of education proposed by progressive groups. Neo-liberalists argued that the long-maintained equality-oriented education policies deprived Korean students of their academic performance, and if we do not change the policy direction, Korea's international competitiveness will continue to decline in the era of globalization. The PISA results eroded the claims of conservatives in education that the academic achievement of Korean students had fallen.

The Finnish Effect was like a salvation to the progressive education groups. After the big surprise of PISA 2003 and 2006, Finland was symbolized as having the best practice among Koreans. The Finnish Effect made Korean educators turn their eyes to the north, from the east. As for education policy, 'silent borrowing' (Waldow, 2009) from Japan was prevalent in

Korea for a long time, making it Korea's reference country. As PISA 2009 made European educators look east to Shanghai, not Finland, as their new reference society (Sellar & Lingard, 2013), Finland became Korea's reference country, not Japan or the USA.

The 'Finnish boom' took place in Korea, and many educators left for Finland to conduct research, and lots of books about Finnish education were subsequently published. Like Japan (Takayama, 2010), the Finnish model has been a signifier that symbolizes the total opposite of the neoliberal policies in Korea. The media introduced Finnish education under the title of "There is no competition in Finnish education" and "There is no standardized test in Finland." Progressive educators in Korea have already secured moral resources by claiming "from test score to happiness" and "not competition but cooperation". The success of Finnish education has become a critical information resource for progressive education policies, contributing to the improvement of student achievement.

3. Governance Turn, but Unsettled

In the mid to late 2000s, Korean education stood at the crossroads of accelerating neoliberal policies or completely shifting the direction of policies. Although the standardized test in Korea was not used to hold teachers, as well as schools, responsible, such as the tests in many western countries, the test results were likely to be used in data-based policymaking. That is, in Korea, the purpose of the standardized test is to identify children with poor academic achievement and provide them with supplemental education programs. In the beginning, the test results were not tied to teacher merit pay or school evaluation at all, but a few years later, 20% of teacher merit pay was decided based on the test results. Furthermore, although the MoE had no plan to keep track of individual student achievement, the department tried to check individual schools' achievement every year and take appropriate actions. If the standardized test continued and accountability-driven policies were intensified, Korean education would be governed by numbers and evidence-based policymaking and the datafication of education would be administered in Korea, as well. However, getting a large amount of resources from PISA, progressives who fought for neoliberal reform persuaded citizens to shift the direction of education reform. Their claims of "from ranking to growth and happiness" and "not education for test but education for whole man" gained the support of more citizens.

After PISA, the governance of education in Korea showed different features from that of many western countries. To answer the central question of "who, for what, and how is education governed?" we need to discuss these differences. First, for the "who" of governance of education, in many western countries accountability reforms were carried out top-down, and the power of state or central government was intensified and the reform was a tendency to re-bureaucratize the education system (Lingard, Martino, & Rezai-Rashti, 2013; Mintrop & Sunderman, 2013). In addition, evidence-based policymaking and the datafication of education have made private institutions that mine, produce, process, and analyze various data related to tests engage in the education policy process (Fenwick, Mangez, & Ozga, 2014). In Korea, however, the power of the central government has decreased and new policy actors such as superintendents and teachers unions are active. Participation of private enterprises in education policy have not been remarkable. In addition, at the school level, efforts have been made to promote democracy in schools by encouraging participation of students and parents. Second, "for what" governs education, a large amount of research

unveiled that various comparative international tests and IOs like the OECD have decisively contributed to the marketization of the field of education in the era of globalization, and the competition for more international competitiveness has fueled the internalization of education by comparative tests (Henry et al., 2001; Pereyra, Kotthoff, & Cowen, 2011). Although international competitiveness has been a critical driving-force for Korean education, the number of people who think that it is time to educate individual students for their growth and happiness, not education for national development, is consistently increasing. Thirdly, when it comes to “how” is education governed, the new governance is based on comparisons, policy as numbers, datafication of education, and evidence-based policymaking (Anagnostopoulos, Routledge, & Jacobson, 2013; Fenwick, Mangez, & Ozga, 2014; Grek, 2009; Lingard, 2011; Lingard, Martino, & Rezai-Rashti, 2013; Nóvoa & Yariv-Mashal, 2003; Ozga, 2009; Ozga, Dahler-Larsen, Segerholm, & Simola, 2011; Steiner-Khamsi, 2014). In Korea, data and information are no longer a key element of educational governance. Rather, the established monitoring and quality control systems have been rapidly 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 (Dufour & Eaker, 1998) within schools and make self-review of schools operate autonomously. Finally, as a result of PISA scores, many western countries have paid attention to the output of education, that is, the test score, while Korea has reversed its thinking and put a lot of effort into improving the input and process of education.

VIII. Conclusion

The PISA results, which showed high academic achievement and very low nonintellectual propensity, empowered educational progressives in Korea. Although not as influential as in some countries, PISA results, as a political resource, contributed to the change of direction of Korean education. The new education policies led by the progressive forces oppose not only test-based education but also data-driven accountability, and aim for more humanized and democratized education. It is, however, too early to evaluate the new policy direction of Korean education. In many western countries, after the end of the age of professional accountability, the governance of education has been dominated by a regime of neoliberal corporate accountability (Ranson, 2003). In Korea, neoliberal accountability is being replaced by professional accountability. The new burgeoning governance of education in Korea, however, has not been settled yet and might have diverse scenarios. The best is that the new governance mechanism in Korean education supplies an alternative governance model beyond a neoliberal one. The worst is Korean education falls into the swamp of the teacher republic (Dobbins, 2014).

Finally, I would like to mention Korean education and the OECD. In recent years, the policy recommendations of the OECD have begun to be critically reviewed, but the OECD's influence has still been significant. 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. On the other hand, the OECD has wanted to promote the Korean case very attractively, since Korea is internationally a unique case that is providing official development assistance (ODA) after receiving it from other countries in the past. In addition, it has been widely known that Korea has made remarkable achievements in education in spite of many obstacles, and that education has played a critical role in achieving both economic development and political democracy (Kim, Y. & Cho, Y., 2014; Lee, C.,

Kim, Y., & Byun, S., 2012). Recently, Korea has participated in the PISA for Development project (PISA-D) as a mentor country, and in the future, IOs including the OECD are sure to demand more roles from Korea. Because of all of this, Korean education is expected to be incorporated more deeply into the Global Education Policy Field.

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