

OECD Teacher Preparation Study

# Promising Practices

## Attracting and Developing Teachers for the 4th Industrial Revolution in Korea

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*Teacher education pathway category(ies): **Attracting the most suitable teacher candidates***

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This case study describes a “promising practice” drawn from an OECD review of initial teacher preparation in Korea from 4-8 December 2017.

The OECD Review Team identified a number of “Promising practices” in each country. These practices may not be widespread or representative, but seen in the context of other challenges, they represent a strength or opportunity to improve the country’s initial teacher preparation system – and for other countries to learn from them.

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## *Promising Practice 1.*

### *Attracting and Developing Teachers for the 4th Industrial Revolution in Korea*

#### Context

Although many countries across the OECD are searching for the “magic policy bullet” to improve the status of the teaching profession, this is not the case in Korea. According to the 2013 OECD Teaching and Learning International Survey, in Korea, 90% of school principals and 66% of teachers reported that they believed the teaching profession is valued in society, compared to the OECD average of 37% and 31%, respectively (OECD, 2014<sup>[1]</sup>). Due to the high status and respect of the profession and high-stakes university entrance examinations, the competition to become a teacher is fierce – and only those with a strong academic record are admitted into initial teacher education (ITE) programmes.

But this trend must be seen in the context of a number of demographic factors. Korea has one of the lowest fertility rates amongst OECD countries: 1.2 children per woman in 2015, down from 4.5 in 1970. Korea also has an ageing population, with 12.7% of the population over the age of 65 in 2015, compared to 3% in 1970 (OECD, 2018<sup>[2]</sup>). The low birth-rate has resulted in a dwindling number of students. The total number of students (from preschool to high school) declined from 8.7 million to 7.7 million between 2010 and 2015. This decline is expected to continue, with fewer than 7 million students in the system by 2020 (Dongguk University and Ministry of Education Korea, 2016<sup>[3]</sup>).

These demographic changes have been accompanied by rapid economic development and the impending issue of the so-called “Fourth Industrial Revolution”. The importance of education for the 21st century is an important driver for this revolution, thus further cementing the central role of education in society. Despite the importance of education, the reduction in numbers is prompting serious policy reflections on the quantity and quality of education provision (see also promising practice 4).

#### What are the future needs for teachers in Korea?

One of the most interesting discussions in Korea centres around the “Fourth Industrial Revolution”. With the rise of artificial intelligence and robotics, the kinds of skills and talent required to work in these fields and, indeed, the broader future society are now a key policy priority. Korea is now promoting a “people-centred economy”, and launched its *Presidential Fourth Industrial Revolution Committee* on 11 October 2017 (Sohn, 2017<sup>[4]</sup>).

These discussions reflect a broader international focus on global competencies (see (Council of Europe, 2016<sup>[5]</sup>; OECD, 2018<sup>[6]</sup>) as a means of fostering innovation and long-term economic growth. According to the OECD, global competence is defined as

the capacity to examine local, global and intercultural issues, to understand and appreciate the perspectives and world views of others, to engage in open, appropriate and effective interactions with people from different cultures, and to act for collective well-being and sustainable development (OECD, 2018, pp. 7-8<sub>[6]</sub>). *Global competency* is composed of four “interdependent and overlapping” dimensions – knowledge, skills, values and attitudes – that people need to apply successfully in their everyday life (OECD, 2018<sub>[6]</sub>) (see Figure 1):

- *examine* issues and situations of local, global and cultural significance (e.g. poverty, economic interdependence, migration, inequality, environmental risks, conflicts, cultural differences and stereotypes)
- *understand* and appreciate different perspectives and world views
- *establish and engage* in positive interactions with people of different national, ethnic, religious, social or cultural backgrounds or gender
- *take action* toward collective well-being and sustainable development.

**Figure 1. PISA Global Competencies Framework**



Source: OECD (2018<sub>[6]</sub>), *Preparing Our Youth for an Inclusive and Sustainable World: The OECD PISA Global Competence Framework*, <https://www.oecd.org/education/Global-competency-for-an-inclusive-world.pdf>, Figure 1, p. 11.

In order to provide students with the skills and education they need to flourish in today’s economy, the Korean Ministry of Education (MOE) is planning to introduce the “2015 Revised Education Curriculum” for secondary education in 2018 (Dongguk University

and Ministry of Education Korea, 2016<sup>[3]</sup>). This curriculum makes broad changes to the content and process of education, including a heavy emphasis on active participation and curriculum-based evaluations. For this to be successfully implemented at schools, the current initial teacher preparation system may need to be restructured. However, this restructuring comes with a challenge, for the number of applicants and student teachers far exceeds the number of places available (Table 1).

**Table 1. Teacher supply and demand in secondary education**

Number	2014	2015	2016
New certifications	23 029	22 426	22 000
Applications (i.e. supply)	45 323	43 913	-
New posts (i.e. demand)	5 468	5 078	-

Source: Dongguk University and Ministry of Education Korea (2016<sup>[3]</sup>), *Country Background Report. OECD Initial Teacher Preparation Study. Korea*, Dongguk University and Ministry of Education Korea, Seoul.

As the number of newly certified teachers drops, so too does the number of available posts. This high level of supply with low demand has led to a growing number of these “best and brightest” teacher candidates being unable to find employment after graduation (Table 2).

**Table 2. Number of primary teacher candidates who passed the employment exam but were not employed, by year**

	2015	2016	2017
Number of students	73	220	2 239

Source: Ministry of Education Korea (2016<sup>[7]</sup>), *The direction for the reform of teacher supply-demand policy* [in Korean], Ministry of Education, Seoul,  
<http://www.moe.go.kr/sn3hcv/doc.html?fn=68078f5fd1e5ca96294a3c293436cd1c&rs=/upload/synap/201805>  
 ↵ p. 9.

This is then a multi-pronged challenge for the Korean authorities. On the one hand, the Ministry is faced with the imperative of the Fourth Industrial Revolution and the need to revise their teaching and learning practices. On the other hand, they have a pipeline of young, motivated and certified teachers who are not able to find a post, particularly in the larger urban centres. Care must be taken to adjust this situation as quickly as possible, for at least three reasons:

1. To reduce the frustration of the high-achievers teachers who have hitherto been rewarded for their hard work and who are now unable to find a post even after passing the employment examination. This is of particular concern for science graduates, of whom there has been an historic oversupply, unique to Korea (Im, Yoon and Cha, 2016<sup>[8]</sup>).
2. To keep the best and the brightest in the profession – the OECD Review Team heard examples of students who were in teacher education but not planning on a career as a teacher as they felt they had better prospects elsewhere.

3. To achieve the goal of implementing the curriculum for the Fourth Industrial Revolution, which will require a critical mass of new teachers formed in the new programme in order to make system-wide change.

A number of possible solutions for the over-supply of teachers are already being implemented and discussed in Korea, including reducing the quota for both the number of entrants to ITE programmes and the number of accredited ITE programmes (see [Promising practice 4](#)). Such initiatives may help address the aforementioned challenges in the short-term, but a broader commitment to radical change and innovation involving all actors in initial teacher preparation may be required – starting with rethinking issues related to entry into the profession – to meet the national goals for Korea’s “people-centred economy”.

### Why is it a strength?

The OECD Review Team in its visit to Korea from 4-8 December 2017 concluded that attraction is a strength in that it:

- *Builds on the respect and high status* of teaching profession in society.
- *Counts on the perception that teaching is an attractive job*: it is stable, well-paid, and perceived to have a good work-life balance.
- Due to the attractiveness of the career, only the *best and brightest applicants* are accepted into teacher education in Korea.
- The attractiveness of the profession means that there is an *extremely high (apparently endless) supply of applicants and teacher graduates*, especially in urban areas and science.

### How could it be improved?

The OECD review team also noted there could be:

- *Potential frustration from high achievers who enter teaching school but do not find a teaching position upon graduation*. This is likely to affect the perception of career and the willingness to sign up for it, especially amongst the best candidates with multiple other options.
- *A potential weakness in that the focus on the security of the profession could be bringing in the risk averse* (i.e. those that are attracted to teaching because of its security might be less willing to take risks in general). This has the potential to weaken innovation capacity, both in classrooms and across the system, as the innovation process requires the willingness to take risk (and potential failure).
- *Increasing feminisation of the profession may lead to an eventual lowering of status*. Additionally, it results in a lack of role models for boys, especially in primary education and middle school.
- Due to the sheer numbers of applicants and available teachers, *there is a lack of a sense of urgency around reforming the system*. This risks exacerbating the challenges set out above.

### For more information

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