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# Global Impact on College Entrance Examination Reforms in East Asia

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**Abstract:** This paper discusses the influence and relation between college examination reforms in East Asian countries and the globalization of education. The focus of this study is on China, South Korea, Taiwan, and Japan. We do so because these countries are often grouped together, as they typically value examinations and knowledge-based education owing to their shared Confucianism background. The research findings identify that individual countries develop their own methods within their particular social background but share many common features, as revealed in the examination reform process. The driving factor for globalization in university entrance examinations is indeed the new type of competency practices in the Programme for International Student Assessment (PISA). The promotion of new PISA-type competencies into the framework of education reform can cause convergent and divergent movements. The former convergent movement concerns the content of the examination, while the latter divergence applies to the admission process.

Key words: College Entrance Examination, East Asia, Globalization, Reform

## Introduction

Many people can easily imagine a scene from the day of nation-wide entrance examinations in East Asian countries, which often referred as '*Keju (Imperial Education System) of modern days*'. In fact, entrance examinations are of interest to everyone in the region (Zeng, 1996). Particularly in China and South Korea, where the issue seems to be harsher than that of Japan, you can read and listen to the news or articles on this topic more often than in Japan (Rauhala, 2015). Curriculum reforms, new teaching methods or a new type of in-school assessment have been introduced and tried out but the main issue of education reform in the region has been always the college entrance examinations.

This influential entrance examination is undergoing reform, changing from the traditional system that gives applicants only one chance to prove their knowledge to a new measuring system (Choi and Park, 2013). Although the basic idea that the total score is the ultimate qualifier does remain, some new methods or systems have been implemented such as giving applicants multiple chances. Among all East Asian countries and regions, the same trend has been witnessed although there is no evidence that the countries have studied and worked together for the new system. Minor differences still exist reflecting each country's social background but the new mutual trend must have come from the globalization of the education among all other reasons that one can think of like popularization of tertiary education and marketization of education. This paper discusses the influence and the relationship between the college examination reforms in East Asian countries and the globalization of education. Specifically, China, South Korea, Taiwan, and Japan are focused on, as these countries and a region are often seen and discussed as one category for they emphasize the examination and seek

for knowledge based education, owing to their shared Confucianism background (Mok, 2006). These similarities apply to the entrance examinations, and this paper will attempt to sum up the common trend of the new entrance examinations in the region and to point out the minor differences which attribute to individual countries, hoping to relate the findings to the globalization of education as conclusion.

## **Globalization and reform of entrance examination**

### **Pervasion of New Competencies**

It has been believed that the primary and secondary education is national matter and free from the globalization movement. It may be true that the influence would be small compared to that of tertiary education. However, since the entrance examination is conducted to those who finish the secondary education for the selection purpose, it is evident that earlier level of education certainly be influenced. In fact, you may be surprised to notice that primary and secondary education has been influenced by the wave of globalization much more than one might expect. The major cause is the PISA (Programme for International Student Assessment) and other international assessments which actually have given much influence to the educational policies in each country since late 1990s (Central Education Commission, Japan 2014; Ministry of Education, Korea, 2013). The fundamental theory of PISA was 'to realize/witness each participating country's educational standard level in the world context'. Since the organization releases the exam results in the forms of statistics data, country league charts or some other comparative data in seek for better education for participating countries.

Here comes a new question: what are PISA-type competencies? It is to see how individual can make use of what he/she has learnt to solve different types of problems he/she may encounter in a real life (MEXT, 2015). These 'applicable' and 'in real setting' competencies somehow resonate Japan's 'new competencies' and 'zest for living'. In 2007, the Japanese government proposed three key components for education; which are "basic knowledge and techniques", "application, decision-making, and expression abilities to make use of these basic knowledge and techniques", and "attitude to work independently" (MEXT, 2015). Improvement of competencies means in Japan is to enhance these above mentioned three key components.

Similar movement is witnessed; in China, "Quality Education" has been introduced in mid 1990s and promoted as a key content of the drastic education reform since then.. The main issue at that time was how to lessen the psychological pressure of the examination on individual students. In order to promote holistic development of students, the Ministry of Education issued "Decision on Furthering the Education Reform and Promotion of Quality Education as a whole", which aimed to switch from memorization based education to Quality Education, aligning with the entrance examinations (Ministry of Education, China, 2001).

This new concept of competency has widely accepted along with the implementation in the primary and secondary education (Chu, 2010). In addition, introduction of PISA made the international ranking of nations visible and also helped to have a common understanding of competences. Asian countries expected that individual students will lessen the pressure of the more knowledge they have to accumulate to perform better at school. The introduction of PISA also has awakened each government the fact that they had to educate global human resources to exceed in the global competition.

### **Entrance examination reforms of individual countries**

To introduce this new type of competencies, the governments have to get rid of traditional knowledge based teaching style and reforming the entrance examination itself is required. For the past

decades, the reform idea was focused on lessening the pressure on students. The reform campaign in China was “Less burden on students shoulder by lightening the school bag”; while in Japan, “stress-free education” was introduced.

Traditional type examinations were to test how much one can remember to score higher marks. The more you had memorized/learned the more you were at an advantage and students ended up drilling pattern practices which reflected on the study hours of students. The more hours the schools taught, the more hours spent studying at home, which was indeed the key issue of the educational problem in Korea; those who could spend more money on private tutoring would have the advantage in the examinations (Bray, 2006). Even after the education reform, no-one can deny the common concept that primary and secondary education exists for the sake of college entrance examinations. The concept that the entrance examination is the most important event to grab success in life and a promise of a happy future, remains the same.

The first step to overcome the complex issues of examination is to weigh less the traditional type questions. Reducing knowledge-based questions in the exam papers was the solution. Instead of intricate questions, fundamental knowledge check type examinations have been introduced. “Academic Attainment Test”, which will be exercised in Taiwan, is this type. “College Scholastic Ability Test” in Korea is another example. The new exam in Japan, “Basic Knowledge Test” which will be in practice from 2020 is also the same kind. The similar trend can be observed in China that integration of examination subjects from six or seven to four general categories in Province based questions in 2000s. In addition, both “General Science Questions” and “General Arts Questions”, which look into critical thinking and expression ability are usually required.

The second point is the decrease in the importance of the written examination. To test the analytic ability and passion towards studying, paper and pencils are not required. It was a common practice in the field of Sports, Visual Arts, or Music to see the candidates’ performances rather than written papers and its style has been expanding to the other area of study. The introduction of essay writing instead of paper exams would eventually lead to examination reform, which would hopefully lighten the burden of students. Other ideas are an implementation on in-school evaluation at high school and select students based on high school records (CVs) as not only academic outcomes but also extra activities are also recorded. Making use of CVs started with very few universities but now as many as 40 % of university practice this entry selection system. In China, too, that “adding point system” has been introduced, which accredits various merits in competitions in school days (Deng, 2013).

Each country now tries to accredit various kinds of abilities other than the amount of knowledge by above mentioned methods. This trend goes along with the selection process of students who could potentially blossom into global human resources after the tertiary education.

## **From selection process examinations to certificate-type examinations**

### **Traditional written examination**

Asian education calls to mind an image of a certain age group taking exactly the same exam questions on a specific time and date. One chance, and one chance only, would be given to every student equally. This practice still exists in a sense. Take for example “GaoKao (College Entrance Examination),” which takes place in June and exam results are used for the selection process for universities. Students can list several universities of their choice but the exam itself is conducted only once. It is the same in South Korea where the public nationwide examination, “College Scholastic Ability Test” is conducted in November only once. The entry selection process will be evaluated together with high school reports. In Taiwan, the basic knowledge test or “Academic Attainment Test” in January and advanced knowledge examination or “Designated Subject Tests” in July are held

respectively, but the selection process is conducted based on either examination result separately. Thus people consider Taiwan case more fortunate as students have two chances to sit for examinations (Lin, 2012).

Among all East Asian countries, Japan still weighs heavily on written examinations. Particularly for public universities, the first public examination will take place in January, “National Center Test for University Admissions”, followed by paper examination by individual universities. In most cases, selection process will be based on the public examination plus individual university-based examination. On the other hand, private universities, which count for 70% of the total number of college students, individual schools and faculties make their own exam papers separately for students to take. Self-selection system of each university in Japan is a good example of autonomy of faculties within the universities. However, compared to other parts of the world, Japan’s case is too differentiated even within a university. It can be understood that the university side wishes to select students who can survive even in the high standards for academic achievement in the first degree courses.

However, the weight the paper examination results carries in the age of globalization is the most criticized aspect of Japan’s education system. The amount of knowledge can be tested by the traditional type exam but new abilities (e.g. inquisitive mind, study habit, willingness to learn, responsibility, adaptability, etc.) which are considered to be necessary for the new age, cannot be measured (Central Education Commission, Japan, 2014). The education style in high schools are shaped by the entrance examination, thus the traditional type examination created an education system based on spoon-fed knowledge. Worth mentioning here is the case in South Korea where a different issue arises from the disparity of economic status of students. The rich can invest more on private tutoring giving them an advantage over their peers. The government in trying to implement reforms to reduce the disparity caused by economic background (Ministry of Education, Korea, 2013).

#### **Movement to certification test**

For a long time in Japan it has been strongly believed that the same question asked at the same time is the fairest practice. At the same time, critics point out this practice caused a memory-based examination hell and eventually created ill-formed high school education. Thus the issue in Japan is how to transform from this memory based examination.

One solution to this is to implement new writing (not written) examinations, which can be observed in the South Korean reform. South Korea introduced an aptitude test, which is distinct from the United State’s SATs. It is an examination to see if a student has solid academic skill which can be obtained through basic knowledge of the high school curriculum. 37 subjects in 5 areas have been developed (Kwon, Lee and Shin, 2015). Furthermore, from recent debates it seems the authorities are trying to lower the difficulty of the examination (Ministry of Education, Korea, 2013).

The same movement is witnessed in Taiwan where “Academic Attainment Test” has been introduced in primarily the January examinations. The authorities make use of the exam results in ‘Twinkling Star Program’ or school recommendations, and ‘Admission Application’ or Individual based entry systems. Japan is no exception, which is planning to introduce the same type system from 2020.

Another issue is to deal with the selection process based on merely exam score. Even in the certification type examination, the result will be given by scores. This is clearly evident both in China and Japan, where equality is believed to be guaranteed if selection is based on scores. It is strongly believed addition of other components would create inequality. Thus, even the slightest difference in scores is proof of how bright you are. In this type of exam system, students end up studying harder and longer, attend preparatory classes after school to learn the technique to score better. To get rid of this vicious cycle, a new system is grade rating, not the absolute scores. South Korea and Taiwan have already introduced the grading system. South Korea has implemented an 8-tiered grading system while

Taiwan introduced a 5-tiered grading system. Japan also announced it would introduce the grading system from year 2020. However, the problem of grading system is too many candidates are given the same grades which made it impossible to select a limited number of students. To select appropriate number of students, universities have to offer additional examination to eliminate the candidates.

Furthermore, Japan seeks a multiple-chance examination system to solve overstress in students, and plans to offer multiple chances to take examinations by 2020. Taiwan actually offers two exam dates although the nature of the examinations differs from each other. The examination tests basic knowledge, and it might eventually evolve to become similar to the US public examinations like SAT and TOEFL. When the examinations are standardized like American ones, students may sit for the examination not only once but several times in a year and minimal disparity is expected.

### **Essay Writing and Interviews**

If application of knowledge, decision making, expression, and attitude are the new set of abilities to be tested, how to assess it is the next issue. If the entrance examinations shall test on the knowledge and ability the students acquired in high school, students' high school records (CVs) are appropriate materials used for the selection process. To test on expression or decision making, essay writing is said to be the best way. Depending on the topic, examiners can see candidates' theory development, analytical skills or other types of competencies. Now many universities include essay writing in their examinations. On top of essay writing, by interviewing students universities can check candidates self-expression skills, decision making, and willingness to study. Thus essay writing and interviews are the ideal form of selection process to check the competencies for the 21st century (Education Innovation Committee, Korea, 2004).

However, it is not practical to interview or give essay writing assignments for the entrance examination to large number of students and mark them within a very limited time. In addition, interviewing is quite subjective and no standardized check list has been developed. Research and practices are required to bring this type of examination into practice. The practice in Taiwan is worth looking into, as the authorities publishes the guidelines for interview questions and video tapes every interview for evidence if any claims are raised from the students (Nanbu, 2007).

One worth noting for this new examination style is that the essay writing and interviews used are only some part of entire examination and selection process in current practice. In case of private universities, every country covered in this paper assesses students essay writing and interview in addition to paper exams. On the other hand, private universities make use of the public nation-wide examination, which was originally made for public universities, to secure candidates' basic knowledge.

Through above mentioned background, as diversified admission screening systems have been introduced including essay writing and interviews based on each university's criteria, it was inevitable for the universities to clarify the admission policy in Japan. In Korea, specialists who deal with the admission procedure, namely 'Admission Officer', have been allocated in each university since 2008 and are able to handle changes flexibly. Such an admission support system is expected to be commonly introduced in other countries, too.

## **Diversification of admission process**

### **Admission through recommendation and AO admission system**

Recent admission procedures witness further diversification beyond introduction of essay writing and interviews. New admission systems include high school recommendation and individual self-recommendation. The former examples are Taiwan's "Twinkling Star Program, South Korea's "Special Selection", China's "Autonomous Admission, and Japan's "Recommendation Admission" . The latter

examples are “Admission Application” in Taiwan, “Admission Officer’ s Selection” in Korea, and Admission Office entry system in Japan. Here in this paper, Japan’s high school recommendation system shall be called ‘recommendation admission’ and the self-recommendation process ‘AO system’ to explain in detail.

The universities that introduce these new admission systems are the ones which have already implemented essay writing and interview type admissions. These new systems differ from traditional type admission procedures that places heavy weight on examination results. In the new systems, the university side first opens their criteria of students they wish to welcome to their university and decide who to welcome depending on their performances by various methods. As mentioned above, the traditional admission process was solely based on written examination results, but ever since the announcement of “reform of university admission systems” in 2000, the admission systems have further diversified and admission through recommendation, which was in practice in private universities even before the reform announcement, has been more common among all kinds of universities. The AO admission system also changed its procedure to place more value on students’ CVs. To sum up, the admission systems in Japan can be categorized into three types: paper examinations, recommendations, and the AO system.

For both national and public universities traditional examination-based admission still occupies the majority, but recommendation admission to public universities is as high as a fourth of the their total. On the other hand, private universities welcome as many as half of their new students through the AO admission system and recommendation admissions. One could say the recommendation admissions are now quite common and popular practice for private universities.

However, the traditional type recommendation from the high school which required a recommendation letter from the school principal is strictly limited to only one student per high school. In this system, the university side usually sets a recommendation criterion by GPA. However, this system does not guarantee the fundamental academic foundation through the nation-wide examination, and the lack of foundational knowledge in those students has been occasionally pointed out. To solve this problem, Taiwan and South Korea now requires examination results even in the recommendation admission system. In Japan, too, the new admission system plan which will be in effect from 2020 make it necessary to submit examination results even in both the school recommendation admission and the AO admission systems.

Besides guaranteeing solid knowledge of students, introduction of examinations aims to clarify the criteria of decision making to explain to the candidates how selection procedure was conducted when any claims were raised. Particularly in the interview admission system it is difficult to present evidence that explains the selection procedure. The same thing can be said for essay writing, thus, in Japan reliance on paper examination remains high.

### **Autonomy of the individual university**

The university admission system in China is rather clear, in that the university accepts students in the order of their test scores until their quota is filled. It is widely accepted that taking the same questions at the same time within the same allocated time is the fairest system. Although it is called ‘nation-wide’ examination, the exam questions differ province by province so it cannot be called ‘nation-wide’ in the strict sense. New admission systems have been introduced and well-received in China, but the percentage of such students admitted through such the new systems is quite limited.

To tackle the criticism that China’s university entrance examination puts too much emphasis on mere memorization, the country has introduced “Autonomous Admission” in top elite universities since 2003 which aims to recruit students with a creative mind. In this system, each university sets their own selection criteria and students who wish to enter the university and meet the criteria can

apply for admission. The system is equivalent to the high school nominated recommendation admission system. The university puts the applicants on the admission list after examining the candidates through essay writing, interviews and some other individual assessment. The candidates still have to sit for the nation-wide entrance examinations practiced in July and only if the candidates pass the criteria the university sets, the students are admitted to that particular university. The universities that participate in this system are some of so called top elite ones (985 · 211 universities) and the number through this admission does not exceed 5 % of new students in each institution. Since the number is extremely limited, and is limited to the top elite students, the new system is believed to have no effects on university examination system itself.

However, the fact that these new recommendation-type admission and AO admission system have been introduced could mean the autonomy of individual university has been guaranteed to some extent. Take for example Taiwan, where the admission had long been based solely on the public examinations and there was no intervention from the university in admission decision making. However, since late 1990s, the introduction of the recommendation admission and some other systems made possible for the university to reflect their idea in selection of students, and now nearly 50% of new students are admitted through AO admission and the high school recommendation systems (Ministry of Education, Taiwan, 2013). In South Korea too, individual universities are now allowed to make decisions in admission selection by essay writing and interviews although written examination set by individual universities is still not allowed.

In terms selection process by individual universities, Japan differs from other countries as universities in Japan traditionally set their own examinations and select students by themselves from the start. The national universities also assign their original examination after the nation-wide public examination. Private universities also make their own exam papers although the chance of taking examination is limited to only once for most universities. To sum, this new trend introduced through the globalization process, can be interpreted that “the autonomy of universities” has been realized.

### **Rectifying the Disparities**

In general practice, globalization promotes free competition, rectifies disparities, and minimizes the gap among ethnic groups, regions and other gaps. Much attention has been paid in recent university admission reforms in many countries to rectifying this disparity. In other words, the diversification of university admission caused by globalization movement helped to create not only multiple chances to sit for the entry process, but also made people alert to the different kinds of disparities. In the competitive environment, there are always some groups who cannot join such competition. For example, there are ethnic minorities and children in rural areas. Considerations for regional disparities and the gap between ethnic groups have increased along with the globalization movement.

The China's practice needs much attention in this sense. As mentioned several times already, China does nation-wide entrance examination, wherever you may live, but decision making has been done on the basis of province. This means the selection process is made within the individual province (to be more specific, examination questions also differ from province to province now). Students in remote areas do not have to compete with students in much advantageous big cities. The allocation of certain number of seats in a university to certain province was introduced based on the idea that the disparities exist from the beginning among cities and towns. This allocation system allowed much disadvantaged students to have the chance to receive university education.

This allocation system may sound unfair for Japanese point of view where disparities among regions are fairly limited and the land is small compared to China, but the system seems set to remain as it is. The government considers the allocation system appropriate, taking into the consideration that disparities still exist in China. Many studies on public examination in China focuses on how to minimize

the unfairness within the society and much improvement is expected to deal with the social disparities (Qiao, 2010; Wang, 2010; Hannum, 2011).

Recently, the movement to solve the disparities between regions has been witnessed in other countries too. Taiwan's school-based recommendation or Twinkling Star Program is a good example (Hsu, Wu and Hsu, 2006). This system was implemented in 2007 aiming to solve the disparities among regions. The fact that students who are admitted to top universities are limited to the students from big cities prompted the introduction of the new system to open up access to top universities for students from rural areas. Each high school can nominate one student to one of area of study (Arts, Science, Life science, etc.). Suppose the science faculty of a university has 10 places for recommendation-based admission, these ten seats are given to ten different high schools. Another new system, admission by individual application, have also allocated places for minority groups or those from remote islands. The new systems allowed disadvantaged students have chances of access to top universities but they have to clear certain criteria set by the university in public examinations practiced in January and excel in school performance.

The same kind of consideration to students in rural areas is seen in South Korea, although the number is quite limited. In South Korea, the admission process is roughly divided into two categories; general admission and particular selection system. The numbers and percentage of students by different admission processes. The student number admitted through the general admission process is the majority. This admission is preceded by the public examination plus essay writing and interviews assigned by individual universities. The other admission selection is for those who have special talent in academic performance, sports or arts but also for students from fishermen's or agricultural towns. The allocated number for the disadvantaged is small but has great significance and shows the government's stance towards alleviating disparities.

One thing worth paying attention in South Korea's case is the admission officer's selection system. This applies to both general admission and special admission and has been introduced since 2007. As explained above, Korean universities require interviews and essay writing in addition to public examination in general entrance admission process. This "admission officer's selection system" is the system that a specialist examines the particular applicants' CVs from school reports, their personalities, and the possibilities to improve after getting into the universities. It is still the public examination that counts the most but the percentage of students through this special system that school reports are carefully taken into consideration for admission is expanding.

It is widely believed that the disparities among regions, family backgrounds, or social status are quite limited in Japan. There is no particular policy taken to tackle the issue. This is due to the fact that there is standardized and fairly equal level of education has been practiced whether in cities or rural areas. If special consideration has been counted for those from remote areas, it may cause criticism of counter-discrimination. In fact, this is the basic understanding of fairness and equality taken for granted in Japan.

## Conclusion

To conclude the topic, both convergent and divergent trends have been examined in recent practice of college entrance examination reforms in China, Korea, Taiwan and Japan in the age of globalization. Usually individual countries develop their own way within their particular social background but many things in common have been found in the examination reform process. The driving factor for globalization in college entrance examination is indeed the new type of competencies practices in PISA. To promote PISA type new competencies into the back born of education reform actually causes convergent and divergent. The three main factors clearly identified.



The first, a convergent movement is about the contents of examination; less emphasis on written examination. Paper examinations provide absolute scores, thus the entry criteria is the higher the number the better. This is indeed the traditional value of Asian countries. The reform is to change this scoring system to the grading system by each subject, selecting students on both essay writing and interviews. This may promote people to have new concept of academic ability. However, there is still cultural resistance to this new basis on decision making. People can accept failure if you cannot get a high enough score in the examination, but Asian people have not yet fully learned to accept failure based on the examination plus documents. It is worth keeping an eye on this issue. Meanwhile, Japan's entry systems through recommendation or AO admission system do not require a written examination and this caused another issue that the students have not yet reached the minimum standard level to receive university education. The globalization in general promotes standardization and this also applies to higher education as a new word, 'qualification assurance' emerged.

The second is about divergence; this applies to admission process. The movement from the uniform and unified process to individually differentiated university entry systems has been witnessed. Globalization is believed to bring about maturation of the competitive environment, and in the reforms on university entrance examination careful attention to the disparities caused by this globalization process is paid. A traditional Asian system was solely based on exam scores and it was long believed that was the only way to give fair judgment. However, with the introduction of divergence through globalization, the importance of addressing disparities was noticed. For individual universities, this movement means the move from a less hands-on and easier process for the university to a more complicated multilevel admission process. Through this movement, less advantaged students from rural areas, of ethnic minorities, and of different social background have gained access to top universities. Further, the involvement of universities themselves for the admission process brought autonomy to universities. This has been the common practice for universities in Japan but the fact that individual universities have a say in the admission process is indeed a big step for their autonomy.

The third and the last point is that the university admission process in Asia still places heavy emphasis on the examination itself, although the reform has introduced diversified admission processes. The main reason for this reliance on examinations is the fact that the examination still remains the fairest method for the selection process. The same questions at the same time during the same allocated time provide the strongest explanation to convince the candidates for the selection results. In fact, only partial introduction of new types of admission process lies on the strong belief that there is no alternative method which is as convincing as examination scores, besides the fact that this is the long-lasting tradition. Recently in China, even the graduates of top universities find difficulties in finding jobs. To survive in such an environment, just getting a degree from a university is not enough. Students and parents as well struggle to get into or send sons and daughters to top universities for better opportunities. To establish a better and convincing university admission system seems to be too much idealistic and the tradition may remain the same for some more decades until a new solution is created.

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