# National Assessment of Academic Ability in Japan: A Comparison with Australia

Hiroshi SATO

〈研究論文〉

## National Assessment of Academic Ability in Japan: A Comparison with Australia

#### Hiroshi Sato

#### 1. Background of the Study

Amidst the current global economic competition and knowledge-based information society, countries are prioritizing the cultivation of human resources, leading to the introduction of achievement tests. In England, National Curriculum Assessments have existed since 1991, to measure the degree of achievement of the national curriculum (Hutchison and Schagen 1994, p.5). In the US, National Assessment of Educational Progress (NEAP) has existed since 1969, and includes sampling from the respective States based on the No Child Left Behind Act, which was enforced in 2001 (US Department of Education 2010, pp.2-3). In Australia, following the achievement tests in the various states since the 1990s, National Assessment Program - Literacy and Numeracy (NAPLAN) was introduced in 2008. In Japan, the National Assessment of Academic Ability and Learning Environment (hereafter, National Assessment of Academic Ability) started in 2007, during the first Abe Cabinet. This movement was spurred by the Programme for International Student Assessment (PISA), which is operated by the OECD. In the 2000s, PISA became a de facto international league table. Japan and Germany experienced a PISA shock in the mid-2000s when their PISA results fell below expectations (Sato and Okamoto 2014, Matsuo 2015 and Lingard 2015). The needs to improve academic ability were emphasized in media reports and policy statements. PISA will further increase its participant countries and continue to attract attention (Bloem 2013, pp.7–8).

Generally speaking, one of the issues of a national testing or national assessment of academic ability is how it should be utilized. An analysis of results will reveal how to enhance the academic ability of students, as well as helping schools to improve their management plans, curriculum, and teaching methods. However, disclosure of the assessment result, depending on its approach, may aggravate problems, such as intensified competition among schools, entrenched school reputations, or persistent gaps among schools (Koning and Wiel 2010, pp.4-6). Furthermore, since such national tests or assessments inevitably reflect institutional differences, backgrounds, and histories in the respective countries, they cannot be free from political influence.

#### 2. The Purpose and Previous Researches

The purpose of this research is to examine Japan's background, system and issues, discuss national assessments of academic ability from the perspective of a Japan-Australia comparison, and consider what policies on national testing should be in the future. This paper also intends to report Japan's situation internationally and serve as a foundation for further dialogue on national testing between Japan and Australia. In the following sections, the article first describes the Japanese system of national assessment of academic

<sup>\*</sup> Division of Education, Faculty of Human Sciences, University of Tsukuba

ability, which comprises the main part of the discussion, and then compares the current situation of Japan and Australia to reveal similarities and differences. Lastly, it considers how differences have arisen between the two countries and what they can learn from each other. In particular, issues of "School Performance Transparency" will be discussed.

This research is a comparative study which reveal similarities and differences on national testing in the respective countries (Imai 1990). Although national assessments of academic ability started in the second half of the 2000s in Japan and Australia, their systems differ in some respects. Both Japan and Australia are members of the PISA Consortium and the national assessments of academic ability in Japan reflect the influence of PISA as will be described hereinafter. Japan and Australia are interesting case countries as the stance on "School Performance Transparency" is considerably different.

While studies have been conducted on national assessments of academic ability in Japan and Australia (as for Japan; Ono 2009, Tozawa 2009 and Tozawa 2010, as for Australia; Thompson 2013, Wyn, Turnbull and Grimshaw 2014 and Lingard, Thompson and Sellar 2016), no comparative studies have been made between Japan and Australia, as far as the author knows. Nor are there any academic papers in English that discuss Japan's overall picture on national assessment of academic ability. While the theme of national assessment of academic ability is always controversial and tends to cause various pro and con arguments, this provides even more impetus to review the theme objectively through international comparisons.

#### 3. The National Assessment of Academic Ability in Japan

#### (1) Basic Situation of the Educational Administration System

Before discussing national assessments of academic ability, Japan's educational administration system is necessarily overviewed. The Japanese school system consists of six years of primary school, three years of junior high school, three years of senior high school, and four years of university. Children aged 6 to 15 are subject to free compulsory education. As the percentage of students who enter senior high school has reached 98% (OECD 2015, p.8), senior high schools with distinctive characteristics, such as those with integrated courses or those employing a credit system, are increasing in number to meet diversified student needs. Chapter 1 of the Basic Act on Education prescribes the aims of education as: "Education shall aim for the full development of personality and strive to nurture citizens, sound in mind and body, who are imbued with the qualities necessary for those who form a peaceful and democratic state and society."

The standards for the nationwide educational curriculum are indicated in the Course of Study, which is officially issued and has legal binding power. Based on the Course of Study, the boards of education of prefectures, cities, towns, and villages determine local standards for their curriculum. Schools must use textbooks that have passed screening by the Minister of Education, Culture, Sports, Science and Technology (MEXT) (Sato 2006, p.472).

Boards of education, as the local educational organizations of the respective local governments, formulate measures for school education, social education, culture, sport, etc., and implement such measures along with other administrative work. Each of the 47 prefectures and 1,718 cities, towns, and villages has a board of education which provides public schools with guidance and advice. Basically, prefectural boards of education establish prefectural schools (senior high schools, special needs schools, etc.) and municipal boards of education establish municipal schools (primary school, junior high schools, etc.). Public schools develop curriculums and submit them to their supervising board of education, which has authority over the personnel issues of public

school teachers. The discretionary power of public schools over their budgets has not increased significantly. Public schools that have founded a "school management council" are called "community schools." There were 2,389 community schools in Japan in April 2015, which represented only 6.9% of the 34,630 public schools in the country (MEXT 2015a). Although school self-assessment or self-evaluation is mandatory for schools, no specific benchmarks are provided, and third-party school evaluation by external professional reviewers like inspectors in England or Reviewers in New Zealand are not implemented.

#### (2) History and Background of National Assessment of Academic Ability

In the 1960s, curriculums in Japan placed importance on the acquisition and memorization of knowledge along with question and answer drills to cultivate human resources that would contribute to the economic boom of the time (Sato 2016). From 1956 to 1966, the Ministry of Education, Science and Culture conducted national assessments of academic ability. Although the assessment started as a sampling survey, from 1961 to 1964, the "National Common Assessments of Academic Ability of Junior High School Students" were implemented as complete surveys (for 2nd and 3rd graders and with respect to five subjects: Japanese language, social studies, mathematics, science, and English). The results of the Common Assessment were disclosed, based on which, prefectures were ranked. This triggered intense competition for higher scores among prefectures and cities, for example, as well as among schools (Sato 2016). Faced with objections from teachers unions, the complete survey was discontinued in 1965, and sampling surveys resumed in 1966.

Since then, based on the idea that a national assessment of academic ability may cause excessive competition and therefore must be dealt with carefully, the Ministry of Education, Science and Culture has avoided implementing such surveys, with the exception of small-scale assessments at the time of revisions to the Course of Study, to monitor the situation after their implementation (Tozawa 2009, p.37). These were the Curriculum Implementation Surveys conducted from 1982-1984 (extraction rate: 1%), 1994–1996 (1%), and 2002-2005 (8%). Although boards of education in some prefectures and municipalities conducted academic ability assessments, they only disclosed approximate data, "positioning these assessments as internal materials for educational administrations and schools, thus treating them accordingly" (Tozawa, 2009, p. 40).

What changed the situation were objections to the Course of Study revised in 1998 (which was criticized as causing a decline in academic ability) and the so-called PISA shock. The Course of Study revised in 1998 was characterized by the careful selection of course contents, the importance of moral education, measures to meet a globalized information society, emphasis on physical and health education, promotion of creative education at individual schools, reduction in instruction hours, and the establishment of a new subject, integrated studies. The Course of Study set ikiru-chikara (the zest for living) as the basic principle of school education. Ikiru-chikara (the zest for living) represents the "capability or skill to recognize problems and learn, think, and act by oneself, as well as the ability to make better decisions in problem solving (MEXT 1996)". The aim of the Course of Study revised in 1998 was to adapt to the imminent knowledge-based information society.

However, some economists and commentators, as well as the mass media, were against the idea of the Course of Study revised in 1998 and argued that what is important in learning is to acquire knowledge. They advocated in newspapers and magazines that the academic ability of children in Japan would decline if the situation was left unattended (Sato and Okamoto 2014, p. 98). This argument was bolstered by the 2003 and 2006 PISA results, in which the reading comprehension level of Japanese students was only average among OECD countries (Matsuhita 2010, p. 2). This fact was reported on the front pages of newspapers as the PISA shock (Yomiuri Shinbun 2007).

An objective analysis would reveal that the academic ability of Japanese students had been excellent throughout the 2000s according to the results of Trends in International Mathematics and Science Study (TIMSS) (Sato and Okamoto 2014, pp.142-143). PISA mainly requires descriptive answers and assesses how much knowledge and skills students can apply to issues faced in various situations of their daily lives. The lower scores of Japanese students in reading comprehension in 2003 and 2006 may have simply resulted from their not being accustomed to this type of learning and therefore to this type of test. However, newspapers and magazines did not provide such explanations at the time, and fanned public anxiety through claims such as that the academic ability of Japanese students is no longer the best in the world (Asahi Shinbun 2007).

The Ministry of Education, Science and Culture adopted several measures to address the PISA shock and the opposition to the 1998 revision of Course of Study. First, the Course of Study was partially amended in 2003 with the objective of cultivating solid academic capabilities. The amendment emphasized that the Course of Study represented the baseline of what should be achieved, whereas previously it had been regarded as setting the standard of what was desirable to achieve. Accordingly, schools were allowed to add to the content of the Course of Study, depending on the situations of individual children. The next important measure was the decision to implement the National Assessment of Academic Ability in April 2007 for all 6th graders of primary schools and all 3rd graders of junior high schools throughout Japan. This was a revival of a fully participatory academic ability assessment after 43 years. In 2007, the expenditure incurred for the National Assessment of Academic Ability exceeded 6 billion yen (Tozawa 2009, p.47). The assessment consists of type A questions on basic knowledge and type B questions on practical skills. The type B questions are designed as PISA-type questions and aim to improve teaching methods to provide students with PISA-type skills. The improvement of scores in reading comprehension with the PISA in 2009 and 2012 is partly attributed to the introduction of type B questions to the National Assessment of Academic Ability (Sato and Okamoto 2014, p. 145).

Since then, the National Assessment of Academic Ability was conducted as a complete survey during 2007-2009 under the administration of the Liberal Democratic Party (LDP). The complete survey method was introduced during the First Abe Cabinet (September 2006 - August 2007) in 2007. As a result of the election to the House of Representatives in September 2009, the administration was passed from the LDP to the Democratic Party of Japan (DPJ). In 2010, 2012, and 2013, the National Assessment of Academic Ability was changed to the sampling method due to the policy of the DPJ administration (September 2009 - December 2012) to simplify academic ability assessments and reduce the budget required for them. The 2011 National Assessment of Academic Ability was called off due to the Great East Japan Earthquake. Reflecting the restoration of the LDP administration (December 2012 - today, Abe Cabinet), the National Assessment of Academic Ability returned to a complete survey in 2014.

#### (3) The System of National Assessment of Academic Ability

The objectives of the National Assessment of Academic Ability are: "from the perspective of equal opportunity of compulsory education, as well as maintenance and enhancement of its standards, to understand and analyze the academic ability and learning environments of children and students throughout the country, verify the results and problems of educational policies for improvement, and utilize the Assessment as a measure to enrich education and guidance for children or students at schools and to improve their learning environment" and also, "through such efforts, to establish a continuous verification cycle with respect to education" (MEXT 2007). The subjects of the Assessment are the 6th graders of national, public, and private primary schools and the 3rd graders of national, public, and private junior high schools. It is mandatory for all

national and public schools to participate in the Assessment, whereas participation by private schools is voluntary. The test subjects are Japanese language and arithmetic for primary school children, and Japanese language and mathematics for junior high school students.

The range of questions is, "in principle, those included in the curriculums of the grades preceding the year of the Assessment." What are tested are, for type A questions, "mainly those knowledge and skills without which students will suffer negative effects in learning contents scheduled in the later grades and the knowledge and skills that are essential in daily life and that, which one can always utilize (that is, questions that mainly ask for "knowledge")" and as for type B questions, "mainly the ability to utilize knowledge and skills in various situations of daily life and the ability to formulate various solution strategies, implement them, and then evaluate and improve them (that is, questions that mainly ask for "application")" (NIER 2016). The questions include both multiple choice questions and descriptive questions.

In addition to these writing tests, the National Assessment of Academic Ability includes "Questionnaire survey on motivation to learn, learning methods, learning environments, aspects of living and so on." (hereafter, the Questionnaire Survey on Children and Students) (NIER 2016). The intention of this survey is to learn about the backgrounds and fundamental situations of children or students' academic ability. At the same time, for schools, the "Questionnaire survey on the situation regarding efforts of teaching methods at schools and securing of both human and materialistic aspects of educational conditions" (hereafter, the Questionnaire Survey on Schools) (NIER 2016) is implemented with the intention to understand the situations at schools.

The National Assessment of Academic Ability is implemented in April each year. MEXT discloses the results of the National Assessment of Academic Ability with regard to the following: Firstly, with respect to academic ability, "the average number of correct answers, the average percentage of correct answers, the median, the standard deviation, etc.", "diagrams to show distributions of the average numbers of correct answers for respective prefectures, cities, towns, villages, schools, and children or students," and "the percentage of correct answers for the respective questions of respective subjects" for both type A and type B questions (MEXT 2015b). Secondly, with respect to the Questionnaire Survey on Children and Students and the Questionnaire Survey on Schools, summaries of answers and their correlation with the percentage of correct answers in the academic ability assessment, are published.

The results of the National Assessment of Academic Ability are disclosed on the MEXT website from the perspective of the "nation as a whole (overall situations of national, public, and private schools, as well as the respective situations of national, public, and private schools), respective prefectures (situations of public schools as a whole), and respective sizes of local administrations (situations of public schools for five categories: "metropolitan areas" (ordinance-designated cities and Tokyo 23 wards), "designated mid-level cities," "other cities," "towns and villages," and "rural areas"). The data of the individual schools are provided to the supervising board of education and the respective schools (MEXT 2015b).

MEXT, boards of education, and schools analyze the results of the National Assessment of Academic Ability from the perspective of securing and improving academic ability, and discuss measures to improve educational policy, educational measures, and educational practice, and make efforts to implement the measures for improvement. MEXT has attached the following considerations to the implementation guidelines; "With respect to the disclosure of the Assessment results, though it is important that the boards of education and schools fulfill their accountability to parents and local residents, it should also be reminded that the Assessment can measure only a specific portion of academic ability and an aspect of educational activities at schools, and sufficient consideration must be given to probable effects and influences on educational matters in order to

avoid rankings and excessive competition" (MEXT 2015b). The guidelines allow disclosure of individual school data based on a judgment by the relevant boards of education and schools from the perspective of formulating improvement measures. However, because of the considerations attached to the guidelines, the data of individual schools are not disclosed in general. In 2014, only 32 municipal boards of education, that is approximately 2% out of 1718 all municipal board of education, disclosed individual school data on the average percentage of correct answers (Sankei News 2014). Schools are required to deliver the individual assessment records to respective children or students. It is not permitted to use the Assessment results for admission selections.

Questions of Japanese language and arithmetic/mathematics consist of type A questions to assess basic skills and type B questions to assess practical skills. In both subjects, the average percentage of correct answers were lower for type B questions than type A questions, indicating the "weakness in practical skills", a trend remaining unchanged from the first Survey in 2007. The results of science also revealed problems in "practical skills" (Tozawa 2010, p. 52).

#### (4) Issues involved with the National Assessment of Academic Ability

Firstly, the ranking of prefectures was published and triggered criticism against lower ranking prefectures. Though MEXT discloses the data unranked, the mass media, sort it in order of scores. Prefectures of the Hokuriku and Tohoku Regions, such as Fukui, Akita, Ishikawa, and Toyama, show higher academic ability. Prefectures with lower academic ability face criticism from their assemblies, and other bodies. Local media and the education society assert opinions that measures should be taken. Accordingly, prefectures formulate and implement measures to improve academic ability. Aiming at the improvement of teaching and school reorganization for the establishment of academic achievement, training sessions are being held and supervisors of boards of education are providing guidance and advice to schools.

Secondly, it invited political intervention into local administrations. On September 20, 2013, the Governor of Shizuoka Prefecture Heita Kawakatsu disclosed the names of principals of schools that received average or higher scores in the National Assessment of Academic Ability. The governor disclosed the names of the principals of the 86 schools (17% of all the 507 primary schools in the prefecture that participated in the National Assessment of Academic Ability), which received national average or higher scores with respect to type A questions on Japanese language. The governor explained the reason as follows. "An advance in children's academic ability depends on teachers' abilities to guide significantly. Primary school principals are responsible for improvements in the teachers' abilities to guide and teach as a whole at their respective schools. This is why I disclose the names of principals. I also disclosed the names of principals of schools that gained higher scores in order to appraise, more than the principals, the many teachers who are actually with children and guiding them at these schools" (Shizuoka Prefecture 2013). This is an issues related to "School Performance Transparency".

Thirdly, problems of unintended use have arisen. Osaka Prefecture decided to utilize the results of the National Assessment of Academic Ability to adjust scores for submission to senior high schools for entrance examinations (Yomiuri Shinbun 2015). The idea is to take the levels of individual schools based on the result of the Assessment implemented for the 3rd graders of junior high schools and utilize the data in a way that the average report card scores of students shall be set to the level designated for respective schools. This allows schools with better Assessment results to grant higher report card scores for a greater number of students, whereas schools with poor Assessment results are forced to suppress record card scores for students. This year,

the Board of Education of Osaka introduced the absolute assessment system, which focuses on the goal achievement level of individual students. Since the system contains the possibility to produce deviations of the assessment scale among schools, the Board intended to secure the fairness of report card scoring by utilizing the results of Assessment. Though MEXT allowed the utilization of the Assessment for entrance examinations for 2016, this is an exception for this year only in order to settle possible confusion at schools.

#### 4. National Assessment Program - Literacy and Numeracy in Australia

In Australia, based on the Constitution, the governments of the respective states and territories have greater power than the federal government with respect to primary and secondary educational administration. For this reason, the federal government concluded the National Education Agreement with State and territory governments. This Agreement requires State and territory governments to secure transparency of school performance in exchange for accepting federal budgets. Based on the Agreement, the federal government established its policy on educational reform in the Council of Australian Governments and took initiative in the Ministerial Council for Education, Early Childhood Development and Youth Affairs (currently called the Education Council), has increased its influence on primary and secondary educational administration in States and territories (Aoki and Sato 2014, pp.13-16).

Based on the National Education Agreement, the Australian Curriculum, Assessment and Reporting Authority (ACARA) introduced NAPLAN in 2008 to the students of the 3rd, 5th, 7th, and 9th grades. (7th grade is referred to as Year 7 in Australia which is equivalent to 1st grade at junior high schools in Japan. 9th grade means Year 9 in Australia which is the same level of 3rd grade at junior high schools in Japan.) In 2010, the ACARA implemented "School Performance Transparency", which increased pressure on schools. Regarding "School Performance Transparency" in Australia, Professor Brian Caldwell at the University of Melbourne commented "if league tables are allowed, they will lead to a focus on testing and rankings, at the expense of properly educating children" (Caldwell 2009).

Julia Gillard, who served as the Minister for Education, Minister for Employment and Workplace Relations, and Minister for Social Inclusion (hereafter, Minister for Education) at the time of the Rudd Cabinet from 2007 to 2010 suggested propelling transparency of school performance. After the introduction of NAPLAN in 2008, the data disclosed for respective States made it possible to compare performance and ranking among States, thus drawing mass media attention. Minister for Education, Gillard considered the achievement of many schools insufficient, and declared the necessity for drastic changes in schools by implementing transparency of school performance through My School website. She also commented, "Though students of Australia show favorable achievement in international assessments of academic ability, the level of achievement has been unchanged or on a slow decline. The achievement level of schools with socially disadvantaged remains low, which will lead to big failure in the future both in terms of economy and morals" (Gillard 2008).

The My School website makes it possible to compare school performance among schools with similar student attributions throughout the country, as well as to compare the scores of specific schools with the national average (ACARA 2015a). These forms of transparency of school performance are institutionally required by the National Education Agreement for public schools and by the Schools Assistance Act for private schools. On January 28, 2010, ACARA started the My School website. Principals associations and teachers unions oppose the website, fearing that the disclosure of the NAPLAN results for individual schools might invite school rankings. So far, My School places high priority on reporting NAPLAN results and "schools who

had started on a very low base were still identified publically as low-performing, even if they had made remarkable gains" (Fachinetti 2015). Actually, school league tables are easily found out on some websites (Sydney Morning Herald 2015).

According to a survey by a research group at the University of Western Sydney, which garnered 8353 responses from teachers in 2012, "For every statement the majority of participants reported that NAPLAN was having an impact. Over eighty per cent believed that NAPLAN preparation is adding to an already crowded curriculum, while fifty-nine per cent believed that NAPLAN is affecting the range of teaching strategies used" (Dulfer, N., Polesel, J. and Rice, S. 2012, p.27). In short, the disclosure of the NAPLAN results cause anxiety that recognition of children's academic ability might be narrowed to a scope that can be measured with writing tests, thus bringing about negative effects that may hamper the balanced development of children. If this is the case, it will bring about negative effects that are rather opposite to the realization of education to meet the knowledge based global society originally aimed at (Lingard, Thompson, and Sellar 2016, p.217).

# 5. Comparison and Conclusion: Similarities and Differences; Why the Differences; What to Learn from Each Other

#### (1) Similarities and Differences

The similarities between the National Assessments of Academic Ability in Japan and NAPLAN of Australia are as follows. 1) Both are annual and national complete surveys, not sampling methods. 2) The data of individual States in Australia and prefectures in Japan are disclosed. Hence, some rankings of States and prefectures were published and brought criticism against lower ranking state and prefecture governments.

The difference between the National Assessments of Academic Ability in Japan and NAPLAN of Australia are as follows. 1) NAPLAN covers assessments for all schools across Australia regardless of school sectors such as government or public, independent, and catholic schools. In Japan, although all public schools are required to participate in the National Assessments of Academic Ability, private schools are free to choose not to participate. 2) The National Assessments of Academic Ability in Japan is composed of type A questions on basic knowledge and type B questions on PISA-type practical skills. The type B questions contributed to improving PISA scores of Japan. On the other hand, NAPLAN of Australia tests basic skills in literacy and numeracy only. 3) Whereas data of individual schools are not disclosed in Japan, they are disclosed on the My School website in Australia. Narrowing of the curriculum and teaching for the test in classrooms can be ascribed to the pressure of "School Performance Transparency". 4) Since, in Australia, data on academic ability are disclosed, information is shared among school officials. Accordingly, the data on academic ability are normally utilized by individual schools without hesitation to improve school management and teaching practices. In Japan, in contrast to active efforts by local administrations and boards of education, individual schools are not utilizing sufficient scientific data on students' academic ability in the most effective way as principals are concerned about information leakage, and not setting up strategies to improve teaching methods and learning outcomes.

#### (2) Why the Differences, and What Can be Learned from Each Other

In Australia, National Education Agreement requires State governments and public schools to secure transparency of school performance. Private schools in Australia are also required to participate in NAPLAN based on the Schools Assistance Act for private schools. In Japan, it is not mandatory for private schools to

participate in the National Assessments of Academic Ability as Private Schools Acts put a high value on their autonomy (Article 1).

The National Assessments of Academic Ability of Japan provide the type B questions that are PISA style ones. This unique approach was introduced to overcome a PISA shock in the mid-2000s. This means that there is a clear linkage between the national testing of Japan and PISA, while NAPLAN of Australia is a national diagnostic tool focusing on basic skills. In a sense, the national testing of Japan is strategic in surviving in an international league table. If the Australian Government is interested in enhancing PISA scores, the type B questions in the National Assessments of Academic Ability in Japan may be one of the references to redesign NAPLAN.

Japan experienced severe competition among local administrations and individual schools as a result of the "National Common Assessments of Academic Ability of Junior High School Students" implemented from 1961-1964. Because of this shared experience among MEXT, schools, and the educational community, disclosure of the scores of individual schools is treated with special care. MEXT also explicitly instructs that competition should be avoided, in the considerations attached to the implementation guidelines. It can be said that this is actually learning from history or experience.

In Australia, the scores of individual schools are disclosed. This is mainly attributed to the political leadership of the former Prime Minister (and former Minister for Education) Julia Gillard. In Japan, MEXT tries not to disclose the scores of individual schools although there was political intervention by the Governor of Shizuoka Prefecture. The implementation guidelines of Japan which restrict the disclosure of individual schools' scores may be very interesting for educators in Australia where there are criticism of NAPLAN.

In the Japanese education system, government or public schools are not authorized to develop school self-management, whereas boards of education have a large tranche of authority. Accordingly, boards of education take initiative in efforts to enhance the academic ability of the relevant administrative districts, which have produced certain results. On the other hand, there may be cases where improvements using scientific data by individual schools are not sufficient because of their dependency on the supervising boards of education. Data of the National Assessments of Academic Ability in Japan are not utilized effectively at each school.

Likewise, in Australia, various measures are taken by local administrations (States and education regional offices). Public schools in Australia have greater discretion compared to those in Japan (Sato 2015). For Japan, there is much to learn from Australia with respect to data utilization, management strategy, and curriculum development by individual schools (Aoki and Sato 2014, pp.161-163).

#### (3) An Avenue for Further Research

A tendency that National Assessments of Academic Ability in Japan and NAPLAN of Australia seem to show almost the same correlations between students' academic ability and their family SES should be noted (Ochanomizu Women's University 2014, p.1 and ACARA 2015b, p.12, p.108, p.355). Despite efforts by individual States or prefectures to enhance students' academic ability, poverty and diversity in ethnicity, language, and culture make students and schools with the low SES very complicated. This is a topic related to equity in students' achievements and improving schools in disadvantaged areas. A comparative study from such a viewpoint will be the research task at the next opportunity.

#### References

- ACARA (Australian Curriculum, Assessment and Reporting Authority) (2015a) "What does the ICSEA Value mean?"
- ACARA (Australian Curriculum, Assessment and Reporting Authority) (2015b) National Assessment Program Literacy and Numeracy, National Report 2015, Australian Curriculum, Assessment and Reporting Authority
- Aoki, M. and Sato, H. (2014) Australia, New Zealand no Kyouiku (Education in Australia and New Zealand), Toshindo
- Asahi Shinbun (Asahi Newspaper) (2007) "Declining in academic ability of Math and Science Literacy", 5th December, 2007
- Bloem, S. (2013) PISA in Low and Middle Income Countries, OECD Education Working Papers No. 93, OECD Caldwell, B. (2009) "Turning the Tables", The Age, 8th June, 2009
- Dulfer, N., Polesel, J. and Rice, S. (2012) The Experience of Education: The Impacts of High Stakes Testing on School Students and their Families: An Educator's Perspective, The Whitlam Institute within the University of Western Sydney
- Fachinetti, A. (2015) "A Short Personal and Political History of NAPLAN", *Education Today*, Term 4, 2015 Gillard, J. (2008) "Leading Transformational Change in Schools", 24th November, 2008
- Hutchison, D. and Schagen, I. (1994) How Reliable is National Curriculum Assessment?, National Foundation for
- Educational Research, p.5
  Imai, S. (1990) "Hikaku Kyouikugaku Houhouron ni kannsuru Ichi Kousatsu (Methodology of Comparative Education)", Hikaku Kyouikugaku Kenkyu (Comparative Education, the Japan Comparative Education
- Koning and Wiel (2010) Ranking the Schools: How Quality Information Affects School Choice in the Netherlands, Institute for the Study of Labor, Germany
- Lingard, B. (2015) "Globalizing educational accountabilities: The Case of the OECD and PISA", A Presentation at Lancaster University, 2 June 2015
  - (http://www.lancaster.ac.uk/fass/doc\_library/edres/15seminars/lingard02.06.15.pdf)

Society), No. 16

- Lingard, B., Thompson, G. and Sellar, S.(ed) (2016) *National Testing in Schools: An Australian Assessment*, Routledge
- Matsuo, T. (2015) 21 Seikigata Skill to wa Nanika (What is 21st Century Styled Skill?), Akashi Shoten
- Matsushita, K. (2010) "PISA de Kyouiku no Nani ga Kawattanoka: Nihon no Baai (What did PISA make change in Education?)", A Report of Symposium: In Case of Nihon (Japan), Kyouiku Test Kenkyu Cenrer (Education and Testing Research Center)
- MEXT (Ministry of Education, Culture and Sports) (1996) 21 Seiki wo Tenboushita Wagakuni no Kyouiku no Arikata nitsuite, Dai Ichiji Toshin (Design for education in our country for 21st century: First Report) (http://www.mext.go.jp/b\_menu/shingi/chuuou/toushin/960701.htm)(Accessed on May 1, 2016)
- MEXT (Ministry of Education, Culture, Sports, Science and Technology) (2007) "Zenkoku Gakuryoku Gakusyuu Jyoukyou Chyousa no Gaiyou (An Overview of National Assessment of Academic Ability and Learning Environment)"
  - (http://www.mext.go.jp/a\_menu/shotou/gakuryoku-chousa/zenkoku/1344101.htm) (Accessed on May 3, 2016)
- MEXT (Ministry of Education, Culture, Sports, Science and Technology) (2015a) "Community School: Gakkou

- Unei Kyougikai Seido (Community School: School Management Council System)" (http://www.mext.go.jp/a\_menu/shotou/community/shitei/detail/1358535.htm)(Accessed on May 1, 2016)
- MEXT (Ministry of Education, Culture, Sports, Science and Technology) (2015b) "Heisei 20 Nendo Zenkoku Gakuryoku Gakusyuujyoukyou Cyousa ni kansuru Jisshi Youryou (An Implementation Plan of National Assessment of Academic Ability and Learning Environment)" (http://www.mext.go.jp/a\_menu/shotou/gakuryoku-chousa/zenkoku/1365022.htm) (Accessed on May 3, 2016)
- NIER (National Institute for Educational Policy Research) (2016), "Zenkoku Gakuryoku Gakusyuu Jyoukyou Chyousa no Gaiyou (An Overview of National Assessment of Academic Ability and Learning Environment)" (http://www.nier.go.jp/16chousa/16chousa/16chousa.htm)(Accessed on May 3, 2016)
- Ochanomizu Women's University (2014) "Heisei 25 Nendo Zenkoku Gakuryoku Gakusyu Jyoukyou Chyousa, Kimekomakai Chyousa, no Kekka wo Katsuyou shita Gakuryoku ni Eikyou wo ataeruYouinbunseki ni kansuru Chyousa Kenkyu, Gaiyou (A Study of Factors influenced on Academic Achievements based on National Assessment of Academic Ability and Learning Environment in 2013, Detail Assessment, An Overview)"
- OECD (2015) Education Policy Outlook Japan, OECD Publications
- Ono, M. (2009) "Zenkoku Gakuryoku Gakusyu Jyoukyou Chyousa Seisaku no Keisei Katei (Policy Development Process of National Assessment of Academic Achievement)", Tokyo Daigaku Daigakuin Kyouikugaku Kenkyuka Kyouikugaku Kyoushitsu Kenkyushitsu Kiyou (Journal of Pedagogy Research Area, Graduate School of Education, University of Tokyo), Vol. 35
- Sankei News (2014) "Gakkoubetsu Heikin Seitouritsu, Kouhyou wa 2% no 32 Shi Ku Chyou Son Kyoui (2% municipal board of education disclosed the average percentage of correct answers of individual school)", 9th December, 2014. (http://www.sankei.com/life/news/141209/lif1412090025-n1.html) (Accessed on March 30, 2016)
- Sato, H. (2006) "Kyoukashyo no Hyouka (An Evaluation of Textbooks)", Tatsuno, C., Ishida, T. and Kitao, N. (eds), Kyouiku Hyouka Jiten (An Encyclopedia of Educational Evaluation), Toshyobunkasya
- Sato, H. (2015) "Australia Victoria Syuu no Gakkou Sairyou Yosan Seido ni kansuru Kenkyuu: Seito no tameno Houkatsu Yosan (Student Resource Package) wo Cyuushin ni (A Study of School-Based Budgeting in Victoria, Australia: Focusing on Student Resource)", Oceania Kyouiku Kenkyuu (Journal of Oceanian Education Studies), Oceania Kyouiku Gakkai (Society of Oceanian Education Studies), Vol.21
- Sato, H. (2016) "Gakuryokukan to Kyouikuhyouka (Views on Academic Ability and Educational Evaluation)", Nihon Jidou Shinkou Zaidan, *Gakkoukyouiku no Sengo 70 nen shi (A History of Schooling for 70 Years Postwar Era)*, Syougakkan
- Sato, H. and Okamoto, T. (2014) Yutori Hihan wa Dou Tsukuraretanoka (How has Criticism of Relaxed Generation been made?), Taro Jiro Editors
- Shizuoka Prefecture (2013) "Kenmin no Minasama, tokuni Senseigata ni (Dear People in this Prefecture, in particular, for Teachers)", 20th September, 2013
  - (https://www.pref.shizuoka.jp/governor/governor20130920.html) (Accessed on April 30, 2016)
- Sydney Morning Herald (2015) "My School: State's Big Improvers Revealed", 5th March, 2015 (http://www.smh.com.au/national/education/my-school-states-big-improvers-revealed-20150302-13tf6s.html) (Accessed on March 30, 2016)
- Thompson, G. (2013) "NAPLAN, My School and Accountability: Teacher Perceptions of the Effects of Testing",

- The International Education Journal: Comparative Perspectives, 12(2)
- Tozawa, I. (2009) "Zenkoku Gakuryoku Cyousa wo Meguru Giron (Arguments on National Assessment of Academic Achievements)", *Reference, June 2009*, National Diet Library
- Tozawa, I. (2010) "Zenkoku Gakuryoku Cyousa no Minaoshi (Reviewing National Assessment of Academic Achievements)", *Reference, June 2010*, National Diet Library
- US Department of Education (2010) An Introduction to National Assessment of Educational Progress
- Wyn, J., Turnbull, M. and Grimshaw, L. (2014) *The Experience of Education: The Impacts of High Stakes Testing on School Students and their Families: A Qualitative Study,* The Whitlam Institute within the University of Western Sydney
- Yomiuri Shinbun (Yomiuri Newspaper) (2007) "Yutori Sedai Gakuryoku, Sekai Top Kyu Tenraku (Academic Achievement by Relaxed Generation, Downfall from Top Class in the World)", 5<sup>th</sup> December, 2007
- Yomiuri Shinbun (Yomiuri Newspaper) (2015) "Osaka Fu, Gakuryoku Tesuto no Nyushi Riyou, Hamon (Making Use of National Assessment of Academic Achievement Created a Stir)", 5th May, 2015

### National Assessment of Academic Ability in Japan: A Comparison with Australia

Hiroshi Sato

The purpose of this research is to examine Japan's background, system and issues, discuss national assessments of academic ability from the perspective of a Japan-Australia comparison, and consider what policies on national testing should be in the future.

The similarities between the National Assessments of Academic Ability in Japan and NAPLAN of Australia are as follows. 1) Both are annual and national complete surveys, not sampling methods. 2) The data of individual States in Australia and prefectures in Japan are disclosed. The difference between the National Assessments of Academic Ability in Japan and NAPLAN of Australia are as follows. 1) NAPLAN covers assessments for all schools across Australia regardless of school sectors. In Japan, although all public schools are required to participate in the National Assessments, private schools are free to choose not to participate. 2) The National Assessments of Academic Ability of Japan is composed of type A questions on basic knowledge and type B questions on PISA-type practical skills. On the other hand, NAPLAN of Australia tests basic skills in literacy and numeracy only. 3) Whereas data of individual schools are not disclosed in Japan, they are disclosed on the My School website in Australia. 4) Since, in Australia, data on academic ability are disclosed, information is shared among school officials. Accordingly, the data on academic ability are normally utilized by individual schools to improve school management and teaching practices. In Japan, thee data from the National Assessments of Academic Ability are not utilized effectively at each school. For Japan, there is much to learn from Australia with respect to data utilization, management strategy, and curriculum development by individual schools.

### 日本における全国的な学力調査 一オーストラリアとの比較一

佐藤博志

本研究は、日本の全国的な学力調査の背景、システム、論点を検討し、日本とオーストラリアの比較・考察を行うことを目的とする。そして、将来、全国学力テストがどのような方向に向かうべきなのかを考察することも試みる。

日本の全国的な学力調査(以下,全国学力調査と略)とオーストラリアの全国学力調査(リテラシーとニューメラシーの全国到達度評価プログラム(National Assessment Program — Literacy and Numeracy,以下 NAPLAN と略)の共通点は次の通りである。第一に,両国とも,抽出調査ではなく,悉皆調査を行っている。第二に,オーストラリアでは各州,日本では各都道府県のデータが公表されている。日豪間の相違点は次の通りである。第一に,オーストラリアの NAPLAN は,公立学校だけでなく,私立学校も対象になっている。日本の全国学力調査は,公立学校は対象になっているが,私立学校の参加は任意である。第二に,日本の全国学力調査は,基礎知識を問うA問題と PISA 型の活用技能を問うB問題から構成されている。オーストラリアの NAPLAN は,リテラシーとニューメラシーの基礎技能を問うテストである。第三に,日本では個別の学校の成績は公表されていないが,オー

ストラリアでは公表されている。第四に、オーストラリアでは、NAPLAN の結果は公表されており、その情報は学校の教職員や教育行政職員で共有されている。そのため、通常、個々の学校において、学校経営や授業実践を改善するために、NAPLAN のデータは活用されている。日本では、全国学力調査のデータは各学校において効果的に利用されていない。オーストラリアの各学校におけるデータの活用、経営戦略、カリキュラム開発は、日本の学校が大いに学ぶべき点であろう。