

# An Analysis of the Performance of Filipino EPA Nurses in the Practice National Board Examination of Japan Conducted in English

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## Abstract

Japan has been receiving Filipino nurses under the Economic Partnership Agreement (EPA) since 2009. Under the agreement, they must pass the National Board Examination (NBE)—conducted in the Japanese language—so that they can continue working (as fully fledged nurses) in Japan. It is a challenging requirement for foreign nurses. Indeed, the passing rate in the NBEs turned out to be considerably low (approximately 10 percent). It is essential for both Philippine and Japanese stakeholders to identify the factors contributing thereto. In this light, this article presents the result of the study that observes the distribution of the accuracy rate of Filipino EPA nurses who entered Japan in 2009 in a practice exam of the NBE, which comprised 240 questions. The performance of Japanese examinees in the actual NBE for nurses in 2009 conducted in Japanese was referred to as a benchmark. Among the eleven officially designated categories of nursing, including seven categories from clinical nursing and four categories from the basics of nursing sciences, the average score in each category in clinical nursing ranged from 60.2 percent to 73.2 percent. For the basics of nursing sciences, it was from 55.3 percent to 78.9 percent. Among the Filipino examinees, there was a huge gap in accuracy rate between those who had seen the questions of NBE for nurses of any of the previous years on the one hand, and those who had never seen them on the other. While 57.1 percent of those who had

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previously seen the exam questions could satisfy the passing rate, only 23.7 percent of those who had never seen them could do that. The study also shows that Filipino nurses in average marked higher points in questions on the knowledge on pharmacology and physiology than their Japanese counterparts, while they marked in average lower points in gerontology nursing than their Japanese peers. From the practice examination result, it is suggested that the obstacles facing the Filipino EPA nurse in passing the National Board Examination concern not only Japanese language proficiency but also differences in examination style, nursing education curriculum, and basic nursing policies in the Philippines and Japan.

Keywords: Economic Partnership Agreement (EPA), foreign nurse, practice national board examination in English

## Introduction

In the late 2000s, Japan began to receive foreign nurses from Asian countries under bilateral Economic Partnership Agreements (EPAs). In 2008, the first batch of Indonesian nurses entered Japan under the Japan–Indonesia Economic Partnership Agreement (JIEPA). In 2009, they were followed by their Filipino counterparts under the Japan–Philippines Economic Partnership Agreement (JPEPA). In 2014, Vietnam started to send nurses to Japan under the Japan–Vietnam Economic Partnership Agreement (JVEPA).

Such movement of nurses is covered in the provisions on the movement of natural persons (MNP) of each EPA. Although the basic scheme of these MNPs is common among these EPAs, the details for each differ. For instance, Indonesian and Filipino nurses must acquire at least the N5 level in the Japanese Language Proficiency Test (JLPT) after six months of predeparture study in their respective countries before they can enter Japan.<sup>1</sup> JVEPA requires Vietnamese nurses the JLPT N3 certificate, in addition to twelve months of predeparture Japanese language training in Vietnam. Required qualifications for application to the EPAs vary with each sending country, too. Indonesian nurses are required to have at least two years of clinical work experience, Filipino nurses at least three years,<sup>2</sup> and Vietnamese nurses at least two years.

Despite such differences, all foreign nurses who enter Japan under the EPA program (EPA nurses) are commonly expected to pass the National Board Examination (NBE) for nurses in Japan within three years of their entry to the country.<sup>3</sup> Through the great efforts of EPA nurses—and those by receiving hospitals that support nurses—the EPA nurses’ passing rates in the NBE have improved.<sup>4</sup> In conducting the NBE for EPA nurses, Japan’s Ministry of Health, Labor and Welfare (MHLW) has also made some adjustments, like (a) extension of the examination time from two hours and forty minutes to three hours and thirty minutes in each of the two sessions of the examination, (b) providing English names of diseases and historically famous persons, (c) providing phonetic guide to every Chinese character, (d) paraphrasing sentences with irregular structure into regular ones, and (e) simplifying difficult Japanese technical terms. These measures may have partly contributed to the improvement of the passing rate. Nevertheless, the passing rate of the EPA nurse candidates in the NBE remains low (7.9 percent in 2015), while the passing rate of non-EPA examinees was 90.5 percent (MHLW 2015a). There remains a wide discrepancy between the passing rate of the EPA nurse candidates and that of the rest—almost entirely Japanese, thus “Japanese examinees” hereafter. However, can the low passing rate be attributed only to the language barrier? Would differences in educational systems and clinical experiences in each country affect the examination result as well? In the first place, 90 percent of the Japanese examinees were fresh graduates—they might have been very well trained for the examination, but they have lesser clinical experiences, except for the mandatory practicum. Remarkably, they registered a passing rate of 95.5 percent. It is noted that the passing rate of nurses who were neither fresh graduates nor EPA candidates was 41.2 percent (MHLW 2015a, 2015b). EPA nurses, on the other hand, have at least two to three years of work experience in clinical settings. This means several years must have passed since they graduated from nursing college. This fact alone implies another disadvantage for the EPA nurses, aside from the language barrier. Although they have improved their skills in nursing, their “textbook” knowledge is no longer fresh; they have not taken an exam for a long time and are no longer

used to answering them. At any rate, passing the NBE is a requirement for the EPA nurses.<sup>5</sup> Therefore, EPA nurses, as well as the staff in the hospitals where they work, have been exerting great efforts to achieve this goal. Previous studies (Setyowati et al. 2010, 2012; Furukawa et al. 2012; Nakamura and Ozaki 2013) suggest that the support system for both EPA nurses and receiving hospitals be improved in order for EPA nurse candidates to pass the NBE.

Under the EPAs, foreign nurses who are licensed in their respective home countries but have yet to pass Japan's NBE are called "nurse candidates" in Japan. They are designated to work under the instruction of registered nurses in the country, with a salary equivalent to that of a nonlicensed staff. This condition is considered one of the primary causes of stress for the EPA nurses and often weakens their self-esteem (Setyowati et al. 2010, 2012). Therefore, the authors of this article suggest that it is important to shorten the period of their being nurse candidates by developing a better support system. To develop a support system for nurse candidates is also to assist hospitals, which shoulder more than two million yen per year per candidate, including salary and miscellaneous expenses, such as that incurred in hiring tutors for review exercises for the NBE (Tsubota et al. 2015). Therefore, it is essential to identify the problems and challenges that EPA nurses candidates encounter with regard to the NBE.

The language barrier is certainly one of the significant hurdles the EPA nurse candidates face. Okuda (2011) analyzed the vocabulary used in the NBE by comparing it with the standardized word list for the JLPT. He points out that only 40 percent of the words in the JLPT word list was used in the NBE. This indicates that the NBE uses highly technical terms compared with the Japanese language of daily use. But is language the only problem the EPA nurse candidates face and the only cause of their low passing rate in the NBE? Language proficiency is definitely a key determinant of the result. However, it is equally crucial to understand the sociocultural context behind the words and/or terms used in the NBE. This essay explores possible elements other than language in the NBE that make it difficult for EPA nurse candidates to pass the NBE. With such assumption, the authors of this

article conducted a practice examination of the NBE for nurses in Japan in English—by translating the questions from Japanese—among the EPA nurses from the Philippines.<sup>6</sup> By analyzing the accuracy rate for each question of the examination, it became easier to determine if the problems really pertain to language or to something else. If the Filipino EPA nurse candidates marked a higher score in the practice examination in English translation, it was assumed that language was the primary obstacle. If not, one can surmise other extralinguistic factors.

The accuracy rate of Filipino examinees for each question in the NBE in English translation was analyzed in relation to that of the Japanese examinees who took the same examination in Japanese in 2009. This was done in order to observe trends in the NBE results between Filipino and Japanese examinees, and to identify the areas in which the Filipino EPA nurses are strong or weak.

### **The Practice Examination**

In Japan, the NBE for nurses is conducted annually (usually in late February, and the result is released in late March of the same year). Each year, a new set of questions is prepared by a committee. The NBE questions become a public document after the examination. Eligible participants in this study were the first batch of Filipino EPA nurses—93 all in all—who entered Japan on 10 May 2009. They were given a six-month Japanese language training at the Association for Overseas Technical Scholarship (AOTS) in Osaka upon arrival, and they had been receiving clinical training at their individual healthcare facilities for about two months before the date of the practice examination.<sup>7</sup>

The authors of the article translated the questions of the 98th NBE, held previously on 22 February 2009. They asked health workers who possess a high command of English to guarantee the validity and reliability of the translation from Japanese to English. The questions were then used as part of the practice examination for the NBE nurse candidates. The questions of the 98th NBE for nurses were categorized into the following eleven areas: (1) Compulsory Questions (Basics of Nursing),<sup>8</sup> (2) Structures

and Functions of the Human Body, (3) Constitution of Disease and Promotion of Recovery, (4) Social Security System and Health of Living People, (5) Fundamentals of Nursing, (6) Home Health Care Nursing, (7) Adult Nursing, (8) Pediatric Nursing, (9) Maternal Nursing, (10) Psychiatric Nursing, and (11) Gerontology Nursing. Areas 1–4 were grouped and labeled as Basics of Nursing Sciences, and areas 5–11 as Clinical Nursing (MHLW 2009a). The Compulsory Questions (Basics of Nursing) cover all the areas mentioned above. The total number of questions in the 98th NBE was 240, 120 questions each for the morning and the afternoon sessions. Out of the 120 questions for each session, 15 questions (a total of 30) were Compulsory Questions (Basics of Nursing). The rest of the questions were composed of General Questions and Situational Questions. In the examination, examinees were asked to choose an answer from four options, an answer from five options, or two answers from five options. Computer-scored answer sheets were used.

The results of the Filipino EPA nurses' practice exam in English were compared with those of the 98th NBE for nurses, as announced by the MHLW.<sup>9</sup> The passing scores for the three designations—Compulsory Questions, General Questions, and Situational Questions—were as follows: For the Compulsory Questions (Basics of Nursing), with thirty questions and one point per question, the passing point was 24. (A score of 23 points or less is a failing grade.) As for the General Questions/Situational Questions, the passing score was 174, out of the total 270 points; 1 point was given for every General Question and 2 points for every Situational Question.

To help compare the accuracy rates for each question between the EPA nurses and the non-EPA nurses, the authors of this study used, with permission, the estimated accuracy rate of the Japanese examinees, which was prepared by Tokyo Academy Co. Ltd. from careful calculations based on the data of the practice examinations the institution had conducted for the Japanese would-be-examinees.<sup>10</sup>

The authors of this study also collaborated with the AOTS to hold the practice examination in English on 26 December 2009 in Tokyo, Osaka,

Nagoya, and Fukuoka. The exam was given simultaneously in all four locations, and examinees received the same time as the nurses who took the actual 98th NBE (i.e., two hours and forty minutes for both morning and afternoon sessions). Fifty-nine out of the 93 Filipino EPA nurses (the first batch) consented to the study, which accounted for 63.4 percent of the group.

The comparison of the distribution of the accuracy rates between the two groups was conducted for each question, and for each of the eleven areas of nursing in the NBE. In this study, the questions were grouped into four types in accordance with the analysis of Tokyo Academy Co. Ltd.—namely, Recall, Estimation, Interpretative, and Problem Solving. Recall questions involve remembering basic information. Estimation questions ask examinees to determine the correct answer by using common sense and on knowledge of the basics of nursing education. Interpretative questions require understanding of the situation in clinical settings. Problem Solving questions test the examinees' thought processes both in understanding and interpreting the clinical scenario. The Problem Solving questions require examinees to have both knowledge and analytical skills.

In assessing the distribution of the accuracy rates of the Filipino EPA nurses in relation to those of the Japanese examinees, the authors of this study particularly focused on questions where there was at least a ten-percent gap in the accuracy rate between Filipino EPA nurses and Japanese examinees. Results were labeled or grouped either as “high accuracy rate” or “low accuracy rate.”

## Results

For analytical purposes, the 59 EPA nurse participants were divided into two groups: those who had seen the questions of any of the NBEs for nurses in Japan of the previous years either in English or in Japanese (21 participants), and those who had not (38 participants). There was a significant difference in the total score of participants between the two groups ( $p < 0.01$ ). Those who had previously seen the questions had a higher accuracy ratio in

all areas. The average score of those who had seen the examination was 226.3 (SD 54.1), while the average score of those who had not seen the examination was 179.1 (SD 42.8). Twelve or 57.1 percent of the participants who had seen the exam questions scored above the passing rate, while only nine or 23.7 percent of the participants who had not seen the examination did so. Familiarity with the trends of the questions seems help achieve the passing rate.

Seven of those who had previously seen the questions correctly answered more than 90 percent of the questions across the entire examination, and one even got a perfect score (100 percent). On the other hand, those who had not seen the examination marked a comparatively low accuracy rate, although many of them achieved approximately 60 percent score across the different areas.

FIGURE 1  
The distribution of scores by area achieved  
by fifty-nine Filipino nurse candidates

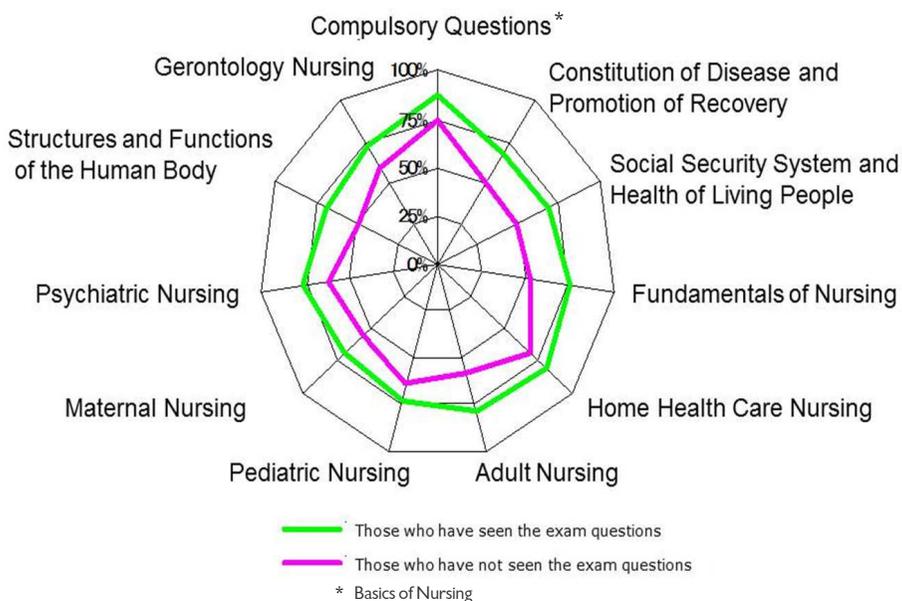
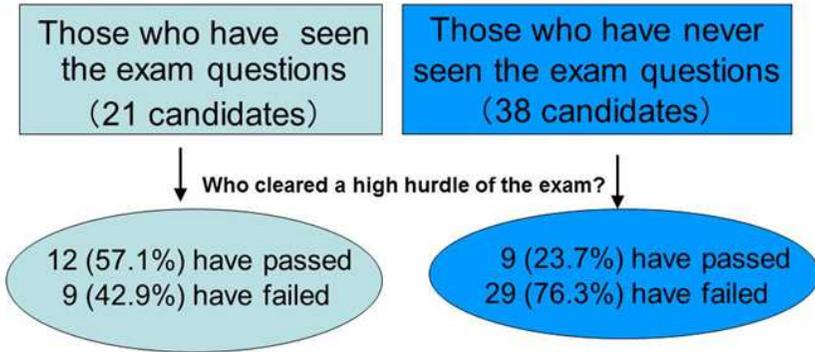


FIGURE 2  
Familiarity with Japan's NBE style and passing rate



The group consisted of the participants who had been presumably preparing for the NBE more seriously. They could have been already familiar with the particular styles of the NBE for nurses in Japan and even with some of the questions. Considering probable bias in the performance of the practice examination, the authors chose the second group consisting of 38 participants for further analysis.

### Accuracy Rate by Area of Nursing

The accuracy rates by area of nursing of the 38 participants and those of the Japanese examinees are shown in Table 1. Across all areas of nursing, the average accuracy rate of Filipino EPA nurses who had not seen the examination was 59.3 percent, while their Japanese counterpart obtained 77.5 percent. This gap also manifests that language is not the sole barrier for EPA nurses, but the probable difference in the content of the licensure examinations between the two countries is also a possible factor in Filipino nurses' low passing rate in Japan's NBE.

In order to calculate the proportion of the accuracy rate of the EPA nurses against the accuracy rate of the Japanese examinees, the

Table 1. Comparison of average score by area of nursing between Filipino nurse candidates who have never seen the examination sheet and Japanese counterpart (%)

		Filipino nurse candidates who have never seen the exam questions (a)	Japanese (b)	(a)/(b)
Basics of Nursing Sciences	General Questions	74.3	92.2	80.6
	Structures and Functions of the Human Body	58.0	83.9	69.1
	Constitution of Disease and Promotion of Recovery	49.8	59.0	84.4
	Social Security System and Health of Living People	49.5	64.8	76.4
Clinical Nursing	Fundamentals of Nursing	51.8	76.2	68.0
	Adult Nursing	58.3	81.2	71.8
	Gerontology Nursing	58.0	83.9	69.1
	Pediatric Nursing	63.2	68.1	92.8
	Maternal Nursing	56.4	77.5	72.8
	Psychiatric Nursing	61.0	80.3	76.0
	Home Health Care Nursing	69.2	90.8	76.2
	Total	59.3	77.5	76.6

authors divided the EPA nurses' accuracy rate by that of their Japanese counterpart. The bigger the proportion, the lesser the gap between the two parties. Across all areas of nursing, the proportion was 76.6 percent. A comparison made by area of nursing indicated the following: the lowest proportion was marked in Fundamentals of Nursing (68.0 percent); the second to the lowest in Gerontology Nursing (69.1 percent) and Structure and Functions of the Human Body (69.1 percent). On the other hand, the highest proportion was marked in Pediatric Nursing (92.8 percent).

### Questions where Japanese Examinees Got Higher Accuracy Rate than Filipino Examinees

In 195 questions out of 240 questions, the accuracy rate was higher among Japanese examinees than among their Filipino counterparts. On the other hand, in 44 questions out of 240 questions, the accuracy rate was higher among Filipino EPA nurses than Japanese examinees. There was one question in which the two groups obtained the same accuracy rate. Among the 195 questions where the Japanese examinees got a higher accuracy rate, 39 questions had a wide gap of at least 40 percent between the Filipino examinees and the Japanese examinees.

These are found in the following areas of nursing in descending order: Adult Nursing (11 questions, representing 28.2 percent of the questions), Gerontology Nursing (nine questions, 23.1 percent), Fundamentals of Nursing (five questions, 12.8 percent), and Psychiatric Nursing (four questions, 10.3 percent). By type, these are as follows: 21 Recall questions out of 39 questions (53.8 percent), seven Estimation questions (17.9 percent), seven Interpretative questions (17.9 percent), and four Problem Solving questions (10.3 percent).

TABLE 2. List of questions where Japanese examinees got accuracy rates higher by 40 percent or more

Questions	Area	Type	Accuracy rate of Japanese examinees (A)	Accuracy rate of Filipino examinees (B)	(A)-(B)
AM18	Structures and Functions of the Human Body	Recall	90.1	47.4	42.7
AM35	Fundamentals of Nursing	Estimation	96.2	52.6	43.6
AM38	Fundamentals of Nursing	Recall	82.2	39.5	42.7
AM39	Fundamentals of Nursing	Recall	88.7	39.5	49.2
AM41	Fundamentals of Nursing	Recall	91.1	29.0	62.1
AM42	Fundamentals of Nursing	Recall	86.5	36.8	49.7
AM46	Home Health Care Nursing	Estimation	98.8	52.6	46.2
AM50	Adult Nursing	Estimation	94.6	36.8	57.8
AM51	Adult Nursing	Interpretative	81.2	39.5	41.7
AM58	Adult Nursing	Recall	89.7	31.6	58.1
AM62	Adult Nursing	Recall	96.9	44.7	52.2
AM67	Gerontology Nursing	Recall	96.5	55.3	41.2
AM68	Gerontology Nursing	Estimation	89.7	42.1	47.6
AM69	Gerontology Nursing	Interpretative	93.1	36.8	56.3
AM70	Gerontology Nursing	Recall	95.8	50.0	45.8
AM99	Adult Nursing	Problem Solving	70.1	26.3	43.8
AM105	Adult Nursing	Problem Solving	93.4	44.7	48.7
AM108	Gerontology Nursing	Interpretative	95.9	50.0	45.9
AM116	Maternal Nursing	Interpretative	98.2	42.1	56.1
AM118	Psychiatric Nursing	Interpretative	95.0	18.4	76.6
PM5	Compulsory Questions	Recall	99.4	50.0	49.4
PM8	Compulsory Questions	Recall	97.9	52.6	45.3
PM14	Compulsory Questions	Recall	88.5	44.7	43.8
PM31	Social Security System and Health of Living People	Recall	84.2	34.2	50.0
PM47	Adult Nursing	Interpretative	90.1	50.0	40.1
PM48	Adult Nursing	Problem Solving	75.4	10.5	64.9
PM52	Adult Nursing	Recall	95.5	52.6	42.9
PM57	Adult Nursing	Recall	68.5	23.7	44.8
PM61	Gerontology Nursing	Recall	91.5	47.4	44.1
PM69	Pediatric Nursing	Recall	86.4	15.8	70.6
PM78	Psychiatric Nursing	Recall	92.7	52.6	40.1
PM87	Adult Nursing	Estimation	89.0	29.0	60.0
PM88	Gerontology Nursing	Recall	69.7	23.7	46.0
PM92	Home Health Care Nursing	Recall	97.5	52.6	44.9
PM104	Gerontology Nursing	Estimation	90.4	50.0	40.4
PM105	Gerontology Nursing	Estimation	90.3	36.8	53.5
PM114	Maternal Nursing	Interpretative	56.5	15.8	40.7
PM118	Psychiatric Nursing	Recall	85.0	42.1	42.9
PM119	Psychiatric Nursing	Problem Solving	81.3	36.8	44.5

FIGURE 3  
Question no. 68 of the morning session (Estimation question)

- Q. Which of the following adjustments for communication is appropriate in response to age-related auditory changes at old age?
1. Speak to the person in a higher pitched voice.
  2. Clearly pronounce consonants in particular. (correct answer)
  3. Choose a room with strong auditory echoing, such as a living room.
  4. Speak to the person in a loud voice at a slight distance.

老年期の加齢に伴う聴覚の変化に対するコミュニケーションの工夫で適切なのはどれか。

1. 高い声で話しかける。
2. 子音を特にはっきり発音する。(正解)
3. 居室には反響の強い部屋を選ぶ。
4. 少し離れて大きな声で話しかける。

Correct answer rate:

Japanese 89.7%

Filipinos who have seen the question:55.9%

Filipinos who have never seen the question:42.1%

To cite some examples, question no. 68 of the morning session on age-related auditory changes, which is categorized under Gerontology Nursing and considered an Estimation question, had a high accuracy rate among Japanese examinees (89.7 percent) but quite low accuracy rate among Filipino examinees (42.1 percent).

FIGURE 4

Question no. 41 of the morning session (Recall question)

Q. Which of the following methods is appropriate for blood collection?

1. Fasten a tourniquet at approximately 2 cm above the puncture site.
2. Sterilize the puncture site from the outside to the center.
3. Collect blood within 2 minutes after fastening a tourniquet.  
(correct answer)
4. Remove the tourniquet after removing the blood-drawing needle.

採血法で適切なのはどれか。

1. 刺入部位の約2cm上に駆血帯を締める。
2. 刺入部位の外側から中心に向かって消毒する。
3. 駆血帯を締めてから2分以内に採血する。
4. 採血針を抜去後に駆血帯を外す。

Correct answer rate:

Japanese 91.1%

Filipinos who have seen the question:47.5%

Filipinos who have never seen the question:29.0%

Question no. 41 of the morning session on blood collection, categorized under Fundamentals of Nursing and considered a Recall question, had a very higher accuracy rate among Japanese examinees (91.1 percent) but seemed to have been challenging for Filipino examinees (29.0 percent).

TABLE 3: List of questions where Filipino examinees got higher accuracy rate than Japanese examinees (10 percent gap or more)

Questions	Area	Taxonomy	Accuracy rate of Japanese examinees (A)	Accuracy rate of Filipino examinees (B)	(A)-(B)
AM8	Compulsary Questions	Recall	77.6	89.5	-11.9
AM16	Structures and Functions of the Human Body	Recall	21.8	39.5	-17.7
AM21	Structures and Functions of the Human Body	Recall	35.9	60.5	-24.6
AM31	Social Security System and Health of Living People	Recall	45.2	57.9	-12.7
AM37	Fundamentals of Nursing	Recall	26.7	39.5	-12.8
AM63	Adult Nursing	Recall	73.8	89.5	-15.7
AM66	Gerontology Nursing	Recall	62.6	73.7	-11.1
AM85	Psychiatric Nursing	Recall	23.3	34.2	-10.9
AM97	Adult Nursing	Recall	57.2	84.2	-27.0
AM110	Pediatric Nursing	Recall	66.1	94.7	-28.6
AM112	Pediatric Nursing	Interpretative	64.9	81.6	-16.7
PM21	Structures and Functions of the Human Body	Recall	11.9	42.1	-30.2
PM29	Social Security System and Health of Living People	Recall	41.8	86.8	-45.0
PM51	Adult Nursing	Recall	32.3	44.7	-12.4
PM62	Gerontology Nursing	Recall	52.4	63.2	-10.8
PM82	Constitution of Disease and Promotion of Recovery	Recall	27.3	63.2	-35.9
PM85	Constitution of Disease and Promotion of Recovery	Recall	26.0	50.0	-24.0
PM99	Adult Nursing	Problem Solving	11.5	31.6	-20.1
PM106	Pediatric Nursing	Recall	53.9	81.6	-27.7
PM108	Pediatric Nursing	Problem Solving	23.9	73.7	-49.8

### Questions Where Filipino Examinees Got Higher Accuracy Rates than the Japanese

Table 3 lists the questions where Filipino examinees outscored Japanese examinees by more than 10 percent. By area of nursing, Adult Nursing (four questions) and Pediatric Nursing (four questions) marked the highest, followed by Structures and Functions of the Human Body (three questions). By type, these consisted of seventeen Recall questions, one Interpretative question, two Problem Solving questions, but no Estimation questions.

FIGURE 5

Question no. 82 of the afternoon session (Recall question)

Q. Which of the following acts most rapidly to anaphylactic shock?

1. Potassium chloride
2. Theophylline
3. Adrenaline • @(Correct Answer)
4. Prednisolone
5. Magnesium sulfate

アナフィラキシーショックに対して最も即効性  
あるのはどれか。

1. 塩化カリウム
2. テオフィリン
3. アドレナリン
4. プレドニゾロン
5. 硫酸マグネシウム

Correct answer rate:  
 Japanese 27.3%  
 Filipinos who have seen the question:72.9%  
 Filipinos who have never seen the question:63.2%

Question no. 82 of the afternoon session is an example of a fairly higher accuracy rate among Filipino examinees (63.2 percent) than Japanese examinees (27.3 percent). This question is categorized as a Recall question, which requires basic knowledge of Pharmacology and Physiology.

Similar types of questions—such as question no. 21 of the morning session about the element in the blood for respiration, and question no. 21 of the afternoon session about what stimulates appetite—show a similar trend.

FIGURE 6  
Question no. 21 of the morning session (Recall question)

Q. Which of the following facilitates respiration when its level increases in the blood?

1. Hydrogen ion (Correct answer)
2. Chloride ion
3. Bicarbonate ion
4. Sodium ion

血中濃度が増加したときに呼吸を促進するのはどれか。

1. 水素イオン
2. 塩化物イオン
3. 重炭酸イオン
4. ナトリウムイオン

Correct answer rate:

Japanese 35.9%

Filipinos who have seen the question:57.8%

Filipinos who have never seen the question:60.5%

FIGURE 7  
Question no. 21 of the afternoon session (Recall question).

Q. Which of the following stimulates appetite?

1. Warmer environment
2. Extension of stomach wall
3. Leptin secretion
4. Elevated level of free fatty acid in the blood (Correct Answer)

食欲を促進するのはどれか。

1. 温熱環境
2. 胃壁の伸展
3. レプチンの分泌
4. 血中遊離脂肪酸の上昇

Correct answer rate:

Japanese 11.9%

Filipinos who have seen the question:52.5%

Filipinos who have never seen the question:42.1%

### Questions where Filipino and Japanese Examinees Obtained the Same High Accuracy Rates

Question no. 77 of the morning session is about the proper care for an asthma patient suffering from an attack who has made an emergency visit. More than 90 percent of the examinees of both groups answered correctly.

FIGURE 8

Question no. 77 of the morning session (Interpretive question).

Q. The case is an elementary school child who made an emergency visit due to an asthma attack. The wheezing was significant and transdermal arterial oxygen saturation ( $SpO_2$ ) was 91%.

Which of the following is appropriate?

1. Encourage having a conversation.
2. Place the child in the upright sitting position. (Correct Answer)
3. Encourage water intake.
4. Encourage thoracic respiration.

喘息発作のため救急外来に来院した小学生。喘鳴が著明で、経皮的動脈血酸素飽和度( $SpO_2$ )は91%である。

対応で適切なのはどれか。

1. 会話を促す。
2. 起坐位にする。
3. 水分摂取を促す。
4. 胸式呼吸を行わせる。

Correct answer rate:

Japanese 95.8%

Filipinos who have seen the question:94.9%

Filipinos who have never seen the question:94.7%

## Questions where Filipino and Japanese Examinees Obtained Low Accuracy Rates

Question no. 33 of the morning session is a Recall question asking about the amendment of the Act on Public Health Nurses, Midwives and Nurses.<sup>11</sup> Only one-third of the examinees or less were able to answer correctly.

FIGURE 9

Question no. 33 of the morning session (Recall question)

Q. Which of the following was added to the items regarding nurses in the Amendment of the Act on Public Health Nurses, Midwives and Nurses that came into effect in April 2007?

1. Title exclusiveness (Correct Answer)
2. Practice exclusiveness
3. Reasons for disqualification
4. Licensing criteria

平成19年4月から施行された改正保健師助産師看護師法で看護師に追加されたのはどれか。

1. 名称独占
2. 業務独占
3. 欠格事由
4. 免許習得条件

Correct answer rate:

Japanese 33.5%

Filipinos who have seen the question:35.6%

Filipinos who have never seen the question:21.1%

## Discussion

The study results indicate that the Filipino EPA nurses who had not seen the NBE questions were able to answer correctly nearly 60 percent of the practice examination questions conducted in English (those who had seen the questions nearly 64 percent), while the average accuracy rate of the Japanese examinees (in Japanese) was 78 percent. Assuming that most of the Japanese examinees were fresh graduates and had been preparing well for the examination, the accuracy rate of Filipino EPA nurses was not very low. In fact, the Filipino EPA nurses did a good job in general considering that they had not seen the questions of the Japanese NBEs beforehand. Although their accuracy rate is lower than that of their Japanese counterparts, the study demonstrated that most of the Filipino EPA nurses have answered correctly most of the questions on Basic Knowledge in Nursing, even the questions unique to Japan's NBE.<sup>12</sup> It can be assumed that this is the result of the great efforts of the Filipino EPA nurses and their instructors in preparing for the NBE/

The comparison of the accuracy rate of the Filipino and Japanese examinees reveals some significant aspects of Japan's NBE for nurses in implementing EPAs.

First, both groups performed really well in the area of Clinical Nursing, as shown, for example, in question no. 77. It is safe to assume that the core concepts of Clinical Nursing are universal, as Nightingale's (1859, 4) note reminds us.

[Nursing] ought to signify the proper use of fresh air, light, warmth, cleanliness, quiet and the proper selection and administration of diet—all at the least expense of vital power to the patient.

For instance, in caring for a patient having an asthma attack, placing the patient in the sitting position is based on the idea of proper nursing intervention that will make asthma patients feel more comfortable.

Second, the results seem to indicate the career experiences of the examinees. One can observe a competency gap, as reflected in the results of the Filipino EPA nurses. A nurse who has been working in a particular area of nursing for years would become an expert therein. For example, a psychiatric nurse could obtain higher competency in the area of Psychiatric Nursing but might get a lower score in other areas (e.g., in the area of Medical and Surgical Nursing) where he or she has had lesser opportunities to perform nursing duties. Moreover, Filipino nurses who wish to apply for the EPA program need to have at least three years of clinical work experience. Therefore, at least three years must have passed since the examinees graduated from nursing programs. It may also be taken into consideration that Filipino EPA nurses may have experienced a stressful life in Japan in adjusting to the new working and living environments (particularly upon entry to Japan). For these reasons, it is possible that some of the Filipino participants in this study were not able to perform very well.

Third, the differences in the accuracy rate between the two groups might be attributed to the differences in the educational system of the two countries. The nursing education system is constructed to reflect the sociocultural context of nursing in each country, which may affect the course content and their practicum. In Japan, nursing students are required to take eight credits in the area of Gerontology Nursing, which is an independently classified subject. In the Philippines, Gerontology Nursing is not a required subject but a two-unit elective course in the undergraduate nursing curriculum.<sup>13</sup> Hence, some Filipino participants in this study may have had limited training in the care of the elderly, even though the concepts and care of the elderly population may have been integrated in certain subjects (Ishikawa 2011; Kawaguchi 2009, 2010). This may explain the wide gap in accuracy rate in Gerontology Nursing between Japanese and Filipino examinees, as shown in Table 1. Therefore, the authors of this article argue that it is important to pay attention to the differences in curricula between the two countries when receiving foreign-educated nurses.

Fourth, in line with the previous point, differences in prevalent diseases and health-related issues between the two countries also seem to have resulted in differences in the accuracy rate, as observed, for example, in Gerontology Nursing, which is given more emphasis in Japan than in the Philippines. Because of the rapid increase of the elderly population in Japan, the demand for competency in Gerontology Nursing in the country is extremely high.<sup>14</sup>

Fifth, the Filipino EPA nurses were able to answer the Physiology and Pharmacology questions in the English version of Japan's NBE. It is safe to suggest that this is because the questions pertaining to these areas are relatively universal and less culturally affected. However, a large number of the questions of Japan's NBE for nurses fall under the areas that are more culturally varied. In other words, foreign EPA nurses could execute a higher accuracy rate in Physiology and Pharmacology once they can memorize the technical terms in Japanese. But in other areas, even if they have mastered Japanese, answering the questions may not be very easy as the correct answers are culturally determined.

Sixth, differences in the job description of nurses are reflected in the practice test result. For example, the low accuracy rate by Filipino examinees in knowing the procedures of blood collection or body puncture may be attributed to differences in the job description of nurses. In Japan, blood collection and body puncture are categorized under Fundamentals of Nursing—in other words, these are considered essential work done by nurses. However, in the Philippines, these are performed by medical technologists and are not considered part of nurses' job description in a clinical setting. Such sociocultural differences in terms of job description of nurses must be taken into consideration in supporting foreign nurses in their preparation for the NBE.

In summary, an analysis of the result of a practice examination of Japan's NBE for nurses in English conducted among Filipino EPA nurses in Japan reveals that Filipino nurses had lower accuracy rates in the questions pertaining to sociocultural, curricular, and legal features particular

to Japan. While the universality of nursing is reflected in some of the result and while Japanese language proficiency is unquestionably important, it is suggested that sociocultural, curricular, and legal differences of nursing between the two countries must also be taken into consideration in making plans to improve the passing rates of Filipino and other foreign nurses who enter Japan under EPAs.

This paper predominantly discussed Japan's NBE for nurses as the primary condition for them to work in Japan. Nevertheless, Lastly, the authors of this article wish to emphasize that passing the NBE is not a goal but merely the start of the career. As a Filipino who has passed the NBE said,

Daily conversation with patients and medical jargons used among the medical staff are different from the language used in the NBE. I have to keep studying my Japanese even after I have passed the NBE.<sup>15</sup>

EPA nurses have to build up their language skills in order to execute their work without any problems. They must continue studying the Japanese language and also continue learning the sociocultural norms of the Japanese workplace and those pertaining to the patients and health professionals in particular. Therefore, the authors of this article also recommend that support for EPA nurses after passing the NBE, especially of Japanese language, is be formalized and enhanced to make the program more meaningful.

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## Notes

- <sup>1</sup> The Japan Foundation, which has been providing Indonesian and Filipino nurse candidates with Japanese language training, assesses their performance by using a similar scheme as that of the official JLPT.
- <sup>2</sup> Filipino nurses are required to have longer work experiences than Indonesians because the number of years of their elementary and secondary education under the old curriculum had been shorter by two years than the international standard of twelve years until the introduction of K-12 education system in the Philippines in 2012.
- <sup>3</sup> The first and second batches of Indonesian and Filipino EPA nurses were allowed to extend their stay in Japan for another year and take the National Board Examination the following year, considering that the duration of their Japanese training course before deployment to hospitals was only six months. Also, some qualified nurse candidates are allowed to do so.
- <sup>4</sup> The passing rates in the NBE each year are as follows: 0 percent (2009), 1.2 percent (2010), 4.0 percent (2011), 11.3 percent (2012), 9.6 percent (2013), 10.4 percent (2014), and 7.9 percent (2015) (MHLW 2015b).
- <sup>5</sup> The Ministry of Health, Labor and Welfare notes that the “EPA is a system to introduce nurses to be trained and to study for passing the NBE for nurse, and to work in Japan” ([http://www.mhlw.go.jp/stf/seisakunitsuit/bunya/koyou\\_roudou/koyou/gaikokujin/other22/index.html](http://www.mhlw.go.jp/stf/seisakunitsuit/bunya/koyou_roudou/koyou/gaikokujin/other22/index.html), accessed 2 April 2015).
- <sup>6</sup> Nursing education in the Philippines is provided in English, and the NBE for nurses in the Philippines is also conducted in English.
- <sup>7</sup> Currently, AOTS has changed its name to Overseas Human Resources and Industry Development Association (HIDA).
- <sup>8</sup> “Compulsory Question” is the official translation of *hisshu mondai* in Japanese. This part contains the questions that test the basic or the “must know” knowledge for nurses-to-be. It is not that the questions on the other categories are elective or optional, but all questions of the NBE have to be answered. Since the official translation is misleading, this article refers to it as “Compulsory Questions (Basics of Nursing)” hereafter.
- <sup>9</sup> Although the passing score for Compulsory Questions (Basics of Nursing) is fixed, that of General Questions/Situational Questions are adjusted every year by the MHLW. The passing score was 160 points for the 2013 examination, 167 points for the 2014 examination, and 159 points for the 2015 examination.
- <sup>10</sup> Tokyo Academy Co. Ltd. is a private tutorial institution providing practice examinations for NBEs. Each year, after the NBE for nurses, Tokyo Academy announces the estimated accuracy rate of the examinees.
- <sup>11</sup> This act is a counterpart of Republic Act 9173 (Philippine Nursing Act of 2002).
- <sup>12</sup> In his previous study (Kawaguchi et al. 2012), Kawaguchi, one of the authors of this study, mentioned that all Filipino EPA nurses answered correctly the questions on self-pay ratio for the population insured with the national health insurance.

- <sup>13</sup> The scope of the BSN (Bachelor of Science in Nursing) curriculum in the Philippines covers nursing care in the preventive, promotive, curative, and rehabilitative aspects throughout the lifespan. Thus, care of older persons is integrated in the different courses, in the classroom and in the practicum. The elective Gerontology Nursing is an attempt to enhance the competencies in providing nursing care to older patients.
- <sup>14</sup> At any rate, we can assume that Filipino nurses' learning more about Gerontology Nursing while in Japan may be utilized effectively in the future in the Philippines, where alteration of age distribution is expected. According to the *CIA World Factbook*, Filipinos between twenty-five to fifty-four years old occupies 37 percent in 2014 ([http://www.indexmundi.com/philippines/age\\_structure.html](http://www.indexmundi.com/philippines/age_structure.html)). See Wongboonsin and Wongboonsin (2013) for the demographic dividend of Asia, including the Philippines and Japan.
- <sup>15</sup> This narrative was given by a Filipino nurse who passed the NBE in her first trial (interviewed in 2011).

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