SKILL EVALUATION SYSTEM PROMOTION PROGRAM (SESPP)

REPORT ON THE ONLINE TRAINING SESSION IN VIETNAM

Experts	Mr. INAGAWA Fumio Technical Adviser of Secretariat of SESPP Mr. YUNOKI Masanori
Period	Monday, January 10 th ~ Friday, January 14 th , 2022
Venue 【Remote Lecture】	Hanoi, Vietnam Hanoi Industrial Vocational College (HIVC) Hachioji City, Tokyo, Japan Studio Always
Training Course	Skill Assessors Training (SAT)
Trade & Grade	Mechanical Inspection Grade 2

Outline of Results

1. Number of participants:

 $\langle SAT \rangle$

Assessors: 16 (including 1 attending online)

2. Schedule

2. Schedule Date	Contents
January 10 th	[Skill Assessor Training]
(Mon) 8:30~16:30 All local time	(1) Overview of SESPP
	(2) About the Japanese skills test system
	(3) Lecture on the pre-course textbook
	(4) Prepare and check equipment and instruments required for Work 1 to Work 4
	(5) Explain how to perform Work 1 to Work 4 using videos
	(6) Explain how to measure the base tangent length of Work 2 by instruction
	on PowerPoint material
	(7) Practice work 1 and work 2 (Enter the measurement results on the answer sheet)
	(8) Practice work 3 and work 4 (Enter the measurement results on the answer sheet)
January 11 th (Tue)	[Skill Assessor Training]
	(1) Prepare necessary equipment (number vests from No. 1 to No. 15, 6 armbands,
8:30—16:30	6 clipboards, 4 stopwatches)
	(2) Prepare necessary documents (practical exam question sheets, precautions
	before the exam, answer sheets, work attitude scoring sheets)
	(3) Role Play (Experienced participants play the role of assessors; others are examinees)
	(4) Practice from Work 1 to Work 4 on Role Play
January 12 th (Wed) 8:30-16:30	[Skill Assessor Training]
	(1) Measure correct answer value and prepare score deduction table
	① Explain how to find the correct answer value by double check
	② Explain measurement instruments and equipment to be used
	③ Explain how to perform the measuring work and how to create a point deduction table, and start measuring work
	(2) Practice scoring based on the created point deduction table
	Explain how to deduct points
	② Emphasize the importance of scoring based on the instructions of the practical
	test for measuring the instrumental error in Work 4.
	③ Fill in the scoring results in the practical test score sheet to complete the sheet

January 13 th (Thu) 8:30—16:30	[Skill Assessor Training] (1) Explain the concept of mechanical inspection job (2) Explain several examples of questions in practical written test (3) Implement practical written test (test time: 105 minutes) (4) Practice scoring using the answer sheets answered by the participants ① Explain how to allocate points for each question and scoring method ② Score based on the correct answer sheet ③ Response to the answers that are different from the correct answer sheet ④ Fill in the scoring results in the practical test score sheet to complete the sheet
January 14 th (Fri) 8:30—16:30	[Skill Assessor Training] (1) Explain how to solve the test questions ① Explain how to solve Question 1 based on the answer example ② Explain how to solve Question 2 based on the answer example ③ Explain how to solve Question 3 based on the answer example (2) Wrap-up

3. Review

(1) This is the first SAT on Mechanical inspection Grade 2 to be implemented at Hanoi Industrial Vocational College (HIVC), so I am a little worried whether HIVC can prepare all the equipment with specified specifications or not. However, thanks to the cooperation of HIVC, the equipment with the specifications instructed by SESPP gets prepared and we can conduct the training course smoothly.

For example, regarding the gear tooth micrometer for Work 2, at first, HIVC bought a Russian-made one. I point out that it is difficult to accurately measure the base tangent length because the central part of the gear tooth could not be measured with its measuring terminal, then I ask HIVC to prepare another one by attaching the appropriate micrometer specifications and photos. Upon this proposal from SESPP, HIVC bought a German-made gear tooth micrometer (which meets the specifications).

Besides, HIVC also prepared the screw plug gauge (M12 x 1.75) and the three needles for measurement $(\Phi 1.0227)$ used in Work 3 according to the specifications.

I hope that this equipment will be used for smooth measuring work in the future.

- (2) Regarding the measurement parts for work 1, there are some positions that cannot be used due to poor accuracy. The parallelism of the positions which is subject to measurement using a height gauge should be within 0.01 mm. I instructed HIVC that the measurement position using the cylinder gauge should be within ± 0.2 mm of the size of the ring gauge to be used, and they agree to produce for next time. Since the objective of mechanical inspection work is to evaluate the skill of precision measurement, it is important to pay sufficient attention to the accuracy of the measurement parts, the instrumental error of the measuring instrument, the temperature control of the room, etc. I raise awareness of the participants about precision measurement job.
- (3) In Mechanical inspection skills tests, measurement using a height gauge and measurement of base tangent length using a gear tooth micrometer are not required for Grade 3, but they are first applied for Grade 2. In the online course, it is difficult to see in detail whether the participants are measuring properly or not. Therefore, I have an impression that it is necessary to actually confirm the measuring method of the participants in person before we conduct SET.

(4) About practical written test

Regarding the questions of the practical written test (full mark 50 points), they can be solved by mastering Pythagorean theorem and the formula of the triangular function, that's why the ability to solve geometric mathematics is required. There are two participants with a score of 45 or higher, I am impressed by their level. Some of them answered using the tangent formula and the quadratic equation instead of the method shown in the correct answer sheet (the method of making a right triangle and applying a trigonometric function to solve it). It is an excellent solution. I share with all the participants that it is important to pay attention to the scoring of such a creative solution.

4. Questionnaire results

◆ Participants: 16 (Respondents: 16)

Satisfaction level: Very satisfied = 10 Satisfied = 6 people
Usefulness level: Very useful = 12 Useful = 4 people
Needs of continuation: Must continue = 12 Should continue = 4

[Improvements and proposals]

- The content of the training course is very good
- I would like you to secure the equipment of the standard and type as specified in the implementation guideline
- I would like you to extend the practice time for practical test
- I want to participate in a training course in Japan
- I want to take training courses for assessors continuously within one year until I am certified as an assessor (Please do not set the interval between each training from 1 to 2 years)
- For practical work tests, I want to practice 4 measuring work before taking the test
- Before taking the practical written test, I would like you to teach us the 7 tools of QC
- I hope that the COVID-19 settle down soon and the experts will be able to teach us in Vietnam so that we can conduct a training course with higher efficiency

[Opinions / comments / preferred training session for the future]

- CNC machining
- CNC Turning
- Milling
- Sequence control
- Mold processing(engineering)
- CAD Grade 2

◆ Manager: 1 (Respondents: 1)

Needs of continuation: Must continue = 1

[Improvements and proposals]

I would like you to carry out more training courses like this on a regular basis

[Opinions / comments / preferred training session for the future]

Mechanical inspection, Universal turning, CAD drawing, Sequence control, Electrical system maintenance.