SKILLS EVALUATION SYSTEM

PROMOTION PROGRAM（SESPP）

REPORT ON THE TRAINING SESSION IN VIETNAM

Experts	Mr. Masanori Yunoki Mr. Fumio Inagawa (SESPP Secretariat Technical Advisor)
Period	December 6th (Wednesday) - December 11th (Monday) 2023
Venue	Dong Nai University, Dong Nai Province, Vietnam Viet SAN Precision Machinery Co., Ltd., Binh Duong Province
Training course	Skills Assessor Training (SAT), Skills Evaluation Trial (SET)
Trade & Grade	Mechanical inspection Grade 2

December 2023

Outline of Results

1. Number of Participants

<SAT> Participants: 12 Training course completed participants: 12

<SET> Assessors: 13 Examinees: 7 Successful examinees: 0

2. Schedule

Date & Time	Guidance content
December 6th (Wed) 8:30 - 16:30 (All local time)	[Skills Assessor Training] 8:30 - 8:50 Opening ceremony 8:50 - 12:00 Lecture and practice exercises (1) The experts explained the SAT and SET schedule. (2) The experts explained the concept of Mechanical inspection trade. (3) The experts explained duties and roles of the assessors based on the skills assessor check sheet. (4) The participants set up worktables for Tasks 1 ~ 4 of the Practical test by placing precision surface plates, necessary measuring instruments, measurement aids, appliances, etc. on the worktable to get prepared for practice exercise. (5) The experts explained the items that are not covered in the content of Tasks 1 ~ 4 of Grade 3. 13:00 - 16:30 Lecture and exercises (6) The experts demonstrated measurement methods for Tasks 1 ~ 4 and explained the key points. (7) The participants performed measurement exercises for Tasks 1 ~ 4 after carefully reading the practical test questions.
December 7th (Thu) 8:30 - 16:30	[Skills Assessor Training] [Role Play] (1) The experts explained the roles of the assessors (Chief Assessor, Assessor) and how to conduct and manage the Practical test. (2) The experts divided the class into assessor group and examinee group to confirm how to perform role play. (3) The experts started role play. All the participants switched roles between assessors and examinees and wrote the measured values for Tasks 1 ~ 4 on the Answer sheet. (4) The participants practiced measuring answer key values and creating a Score deduction table. (5) Scoring work exercise The participants used the Answer sheet that the participants filled in Role Play to practice how to score and calculate deduction points.

December 8th (Fri) 8:30 - 15:30	[Skills Assessor Training] 8:30 - 12:00 (1) The experts explained how to solve Practical test including planning task. (2) All the participants worked on planning task (test time 105 minutes) (3) The experts explained the scoring method Practical test including planning task. After that, the participants practiced how to score using the Answer sheet that they had answered. (4) The experts explained the structure and passing criteria of the Mechanical inspection Grade 2 Practical test. 13:00 - 15:30 (5) The participants packed the test equipment and move to the SET venue (Viet SAN Precision Machinery Co., Ltd.) (6) The participants set up test venue at Viet SAN Precision Machinery Co., Ltd. The participants set up venues for Theoretical test and Practical test (Task 1 ~ 4) (7) The experts assigned the assessors in charge of SET on the next day
December 9th (Sat) 8:30 - 15:45	[Skills Evaluation Trial] 8:00 - 8:25 Reception, opening ceremony. 8:30 - 10:10 Theoretical test (7 examinees) 10:10 - 11:55 Planning task (7 examinees) The participants distributed answer sheets, triangular rulers, compasses, and circular rulers. The participants started the test after distributing the test questions and reading the instructions (test time: 105 minutes). The participants, who were not in charge of Theoretical test, Planning task and other task tests as the assessors, measured the answer key values for Tasks 1 ~ 4 and created a deduction table. 13:00 - 15:45 Practical test (manufacturing task test) 7 examinees
December 10th (Sun) 8:30 - 15:00	[Skills Evaluation Trial] (1) The experts divided the class into groups in charge of scoring Tasks 1 ~ 4 and manufacturing task test. After that, the participants tallied work attitude score sheet. (2) The participants performed scoring of practical task tests, including planning task. (3) The participants filled in the examinee's scores for the manufacturing task test and the Planning task test to complete the Practical test result sheet. (4) Completed the Test result table by filling in the scores of the Theoretical test and Practical test. (5) Gave favorable comments and summarized the test results
December 11th (Mon) 8:30 - 12:00	[Skills Evaluation Trial] (1) The experts explained how to solve task tests, including planning task. The experts explained how to solve test questions by using materials on Practical written test. (2) The experts explained various charts by using materials on QC seven tools

	(3) The experts explained how to solve graphical questions (by describing explanatory diagrams, measurement procedures, and formulas for calculating values). The experts explained how to measure dimensions and find values using Pythagorean theorem and trigonometric functions. (4) The experts explained measurement preparation and calculation formula for determining the angle.

3. Review

<Mr. Inagawa>

(1) In the Mechanical inspection SAT and SET Grade 2 this year, there were 7 new examinees who took the SET for the first time. We adopted a teaching method that emphasized the demonstration led by 5 certified assessors and showed the new participants how to solve each task. By doing so, we helped them understand and solve the tasks smoothly, and the SAT and SET were conducted efficiently.

(2) While we were conducting the Theoretical test and the planning task test based on the SAT participant's ideas, the participants, who were not in charge of Theoretical test, Planning task and other task tests as the assessors, worked together to measure the answer key values for Tasks 1 ~ 4 and created a deduction table. Their contribution helped to improve the work efficiency. Besides, we instructed the class the significance of controlling the temperature in the room within ±1℃ during measurement and tell them to strictly adhere to this principle.

Mechanical inspection is the work that requires measurement skills that can read down to the μm level. For example, a 100 mm long steel part expands by 1.1 μm when its temperature increases by 1°C. Therefore, we instructed the participants to develop the habit of paying close attention to the instrumental error of the measuring instruments and changes in indoor temperature.

(3) About the task tests including planning task

The questions for the planning task test (50 points) can be solved by using Pythagorean theorem, trigonometric formulas and require skills in geometry and mathematics. Regarding the examinees' scores, the highest score was 21.8 points, and the others were below 20 points. If the examinees get used to geometric questions, they will be able to grasp the basics of how to solve them. We requested that SHTP-TC conduct test preparation training for those wishing to take the test and provide guidance on its procedures. By doing so, we can expect to have successful examinees in the next SET.

<Mr. Yunoki>

With the help of six experienced local Assessors, we were able to conduct the SAT and SET efficiently. We conducted SET a company’s site, and I learned a lot from delivering equipment and setting up a testing site in a different environment. There were 7 examinees who took Grade 2 SET for the first time, but none of them passed because they did not get prepared enough for the test. This test requires training on practical test questions and correct measurement methods, which form the basis of inspection. This time, by conducting the SAT at a university and the SET at a company respectively, the participants were able to interact with each other. I think that he implemenation of the training activity and test like this is meaningful in terms of helping the participants to improve skills, maintain and develop the certification skills test.

4. Questionnaire results

SAT [Skills Assessor Training]

◆12 participants (12 respondents)

Satisfaction level:	Very satisfied = 9	Satisfied = 3
Usefulness level:	Very useful = 11	Useful = 1
Needs of continuation:	Must continue = 9	Should continue = 3

[Improvements and proposals]

- To meet requirements of the mechanical parts, it is neccessary to provide a lot of documentation regarding measurement standard. Eg. JIS standard.
- If possible, training materials should be sent to participants before the training course begins.
- We need to learn some knowledge before taking the test.
- The participants need to get explained on how to answer the assessment test so that they could clearly understand how to take it.
- I wish that I could have read the learning and training materials about 1 to 2 weeks before the training course.
- Many other test methods

[Opinions, comments, and preferred trades for the future]

- Training on Sequence control and Mechanical drawing CAD work
- CNC profession
- CNC industry
- CNC machining
- Mechanical engineering
- Machine maintenance
- Machine tool maintenance and repair
- CAD
- I wish that SESPP could conduct training courses on mechanical measurement and testing of automotive mechanical parts.

◆1 local manager (1 respondent)

Needs of continuation:	Must continue = 1

[Improvements and proposals]

- None

[Opinions, comments, and preferred trades for the future]

- Mechanical inspection Grade 2, Drawing design, Sequence control.

SET [Skill Evaluation Trial]

◆ 13 assessors (13 respondents)

Satisfaction level:	Very satisfied = 11	Satisfied = 2
Usefulness level:	Very useful = 11	Useful = 2
Improvement level:	Much improved = 10	Improved = 3
Needs of continuation:	Must continue = 10	Should continue = 3

[Improvements and proposals]

- I look forward the training courses in other trades such as CNC machining.
- I would appreciate if this program can be held from May to November next year.
- I would appreciate if I could participate as an assessor in Japan to gain experience.
- I would appreciate if the questions were written in more understandable way.
- We need to organize more often.
- I would appreciate if I could have access to learning and training materials approximately 1 - 2 weeks prior to the training course.
- The skills tests are conducted on trial basis at companies.
- Many other training courses.

[Opinions, comments, and preferred trades for the future]

- Mechanical inspection Grade 2, Sequence control Grade 2, Sequence control Grade 3, Mechanical drawing CAD work Grade 3
- CNC
- CNC machining
- CNC profession
- Mechanical drawing, CNC milling, lathe
- Sequence control
- Machine maintenance
- Machine tool maintenance and repair technology
- Mechanical system
- The content that we have learnt from the program was extremely useful, and I wish that in the future I could take part in many other technical training programs, including specific programs in Japan.
- I would appreciate if SESPP could implement the training courses on detailed mechanical testing skills for automobile machinery.

◆7 examinees (7 respondents)

Satisfaction level:	Very satisfied = 5	Satisfied = 2
Usefulness level:	Very useful = 4	Useful = 2
	Neither very useful nor useful = 1	
Needs of continuation:	Must continue = 5	Should continue = 2

[Improvements and proposals]

- Longer preparation time before the test.
- We need more classes to provide comprehensive knowledge.

[Opinions, comments, and preferred trades for the future]

- Mechanical system (4)
- Management structure
- Quality control

◆1 local manager (1 respondent)

Needs of continuation: Must continue = 1

[Improvements and proposals]
・ None

[Opinions, comments, and preferred trades for the future]
・ Mechanical inspection Grade 2, Drawing design Grade 2, Sequence control Grade 2.