

SKILLS EVALUATION SYSTEM
PROMOTION PROGRAM (SESPP)
**REPORT ON THE TRAINING SESSION
IN CAMBODIA**

Experts	Mr. INAGAWA Fumio (SESPP Secretariat Technical Advisor) Mr. YUNOKI Masanori
Implementation period	Monday, February 20, 2023 ~ Friday, February 24, 2023
Venue	National Polytechnic Institute of Cambodia (NPIC) Phnom Penh, Kingdom of Cambodia
Training course	Skills Assessor Training (SAT), Skills Evaluation Trial (SET)
Job trade & Grade	Mechanical inspection - Grade 3

March 2023

Outline of results

1. Number of participants:

<SAT> Participants: 11

<SET> Assessors: 11

Completed participants: 11

Examinees: 5

Successful examinees : 2

2. Schedule

Date and Time	Content
February 20 th (Mon) Day 1 8:30 - 16:30	[Skills Assessor Training] Opening ceremony ① Roles and responsibilities of assessors ② Points to keep in mind upon the administration of practical test ③ Necessary equipment and items ④ Practical test questions, necessary measuring instruments, etc. ⑤ Role play (assigned roles of assessors and examinees to the participants)
February 21 st (Tue) Day 2 8:30 - 16:30	[Skills Assessor Training] ① Role play (continued) ② Measure correct values and practice
February 22 nd (Wed) Day 3 8:30 - 16:30	[Skills Assessor Training] ① Practice of Measurement and Scoring ② Formation of the evaluation team and division of roles ③ Create the Practical test timetable ④ Check the test equipment ⑤ Set up the test venue and arrange the equipment
February 23 rd (Thu) Day 4 8:30 - 16:30	[Skills Evaluation Trial] 8:30 Reception 8:40-9:40 Theoretical test (5 examinees) 9:50-14:00 Practical test (5 examinees) 14:00-16:30 Measure correct values, create score deduction sheet
February 24 th (Fri) Day 5 8:30 - 16:30	[Skills Evaluation Trial] Scoring, Evaluation and Wrap-up session

3. Review

<Mr. Inagawa>

- ① There was a huge difference in the level of measurement skill among the participants. Three of them used micrometers and vernier calipers for the first time, and didn't know how to measure with them as well as how to read the measured values (scales). We had a hard time giving instructions because we had prepared teaching materials based on the assumption that all the participants were experienced in measurement work. We taught and trained them on the spot on how to measure with a micrometer and vernier calipers, and how to read the scales, we had them joined role play session. As the result, they made it to achieve beginner's measurement level. Next time, I would like to bring teaching material on measurement skill for beginners,

namely "How to use micrometers and vernier calipers, and how to read measured values (scales)".

- ② Since most of the participants were experienced in measuring work using micrometers and vernier calipers, they were able to handle smoothly Task 1 to Task 3 of the practical test for Mechanical inspection. However, when I had them measured parts in 1/1000 mm, there were many cases where the measured values obtained by double-checking the same part didn't match. I think that some of them need to gain more experience to improve their measurement skill.
- ③ The venue where SAT and SET were conducted this time was an air-conditioned practice room. In precision measurement work, it is extremely important to maintain the room at a constant temperature, and it is a point that requires particular attention. Thanks to the air-conditioner, we were able to keep the room at a constant temperature (24°C) and prevent measurement errors due to temperature changes. On the other hand, some participants didn't pay attention to temperature control, for instance, they didn't close the door when entering and exiting the room. Therefore, we explained the linear expansion coefficient, elongation of metal materials due to temperature changes, and measurement error due to handling block gauges with bare hands.
- ④ This was the first time for the participants to attend a lecture on precision measurement by the experts. Information on how to properly handle measuring instruments and measuring aids were available on Internet, so we advised them to go online to get the information they want to learn. At the same time, we explained the importance of maintenance management of block gauges, screw gauges, three wires, measuring instruments, etc. Furthermore, we also explained maintenance methods to prevent rust, and advised them to store the measuring instrument with the utmost care and attention.

<Mr. Yunoki>

Since this was the first time that SESPP introduced mechanical inspection job trade in Cambodia, we had some concerns about the progress of the training. However, as the test results showed, half of the participants were experienced in machine inspection and they became the driving force for the course. We had a successful training course with 11 participants attending SAT and later in the SET, we assigned 5 of them to be examinees, 6 of them to be assessors. The examinees achieved successful results in the test by following what they had learned in SET pre-course, which was their first experience. I think that this fact will be a great motivation for us to continue this program in the future. I am hoping that this program will be continued.

4. Questionnaire results

SAT [Skills Assessor Training]

◆ 11 assessors (11 respondents)

Satisfaction level:	Very satisfied = 9	Satisfied = 2
Usefulness level:	Very useful = 8	Useful = 3
Needs of continuation:	Must continue = 10	Should continue = 1

[Improvements and proposals]

- More time for training and practice.
- Please share the format form for reference.
- I'm glad that I was able to take the course. I wish that other teachers could take part in this program.

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

- General mechanical system
- CNC or general purpose machine tools
- Welding inspection
- Milling (2)
- Machining (3)
- Quality Control
- CNC turning
- Turning processing (2)
- Milling machine

◆ 1 local manager (1 respondent)

Needs of continuation: Must continue = 1 Should continue = 0

[Improvements and proposals]

- Please provide supports for the equipment needed for mechanical inspection.

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

- None.

SET [Skills Evaluation Trial]

◆ 11 assessors (11 respondents)

Satisfaction level:	Very satisfied = 8	Satisfied = 3
Usefulness level:	Very useful = 8	Useful = 3
Ability improvement:	Much improved = 6	Improved = 5
Needs of continuation:	Must continue = 7	Should continue = 4

[Improvements and proposals]

- This is a well-designed training program. You don't need to make any changes.
- Please conduct this workshop for other people.

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

- Machining (mechanics)
- Machine maintenance
- Tools for machining inspection
- Similar technology and machines
- Welding inspection
- Milling machine (2)
- CNC turning

◆ 5 examinees (5 respondents)

Satisfaction level:	Very satisfied = 3	Satisfied = 2
Usefulness level:	Very useful = 3	Useful = 2
Needs of continuation:	Must continue = 3	Should continue = 2

[Improvements and proposals]

- Please conduct this workshop for other people.
- You don't need to make any changes.

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

- Milling machine (2)
- Machining
- CNC turning

◆ 1 local manager (1 respondent)

Needs of continuation: Must continue = 1

Should continue = 0 person

[Improvements and proposals]

- None

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

- None