

DEVELOPMENT OF THE SOCIAL SKILLS OF POWER PLANT INSTRUCTORS (CASE STUDY)

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Abstract

In recent years we have conducted different psychological examinations of control-room operators in a power plant in Hungary.

One of the results of the examinations was that the operators' co-operation in the control-room was obstructed by the lack or insufficient development of certain social skills.

We received a new task from the power plant, the aims of our work were:

- I. To identify these social skills, called 'soft skills', skills of communication, co-ordination and co-operation meaning clear verbal communication, identification of non-verbal communication, team -building, control-room stress management, conflict handling, etc.
- II. The power plant provides simulator training for the operators. We worked out the development program for the instructors of the simulator training centre, because the instructors are responsible for developing the operators' 'soft skills'.

The instructors' development program consisted of three steps:

- knowing and understanding,
- recognizing and evaluating,
- developing these skills.

Each step had three parts: to know the skills, to use methods fitting to the greatest degree the operators' behaviour in the control-room, and to be able to develop these skills.

- III. We collected scientific material on the theory of the skills, presented the skills and provided training for the instructors.

The instructors' training activities in the simulator centre was coached and evaluated during the whole period of their work.

We composed a special scoring sheet evaluating the performance of the instructors and the operators during the training, the results were fed back to the participants.

Conclusions: Developing, stabilizing and preserving 'soft skills' all require continuous coaching and evaluation.

Keywords: simulator centre, soft skills, development skills, training.

In recent years we have conducted different psychological examinations of control-room operators in a power plant in Hungary.

One of the results of the examinations was that the operators' activities were more effective and successful in those teams where there was appropriate co-operation and clear communication among the team members, and the leadership style was task-orientated considering relations.

The above result helped us to recognize the need to improve social skills and behavioural forms of operators' teams to solve problems more effectively.

We received a new task from the power plant, the aims of our work were:

- I. To identify the social skills, called 'soft skills', skills of communication, co-ordination and co-operation meaning clear verbal communication, identification of non-verbal communication, team -building, control-room stress management, conflict handling, etc.

In our interpretation these skills are social ones, with social and individual competence.

- II. The power plant provides simulator training for the operators. The instructors have responsibility for the operators' development in the simulator centre, they work out the programme of the simulator, the scenario of the exercises, and lead and evaluate the exercises.

We worked out the development programme for the instructors of the simulator training centre, because the instructors are responsible for developing the operators' 'soft skills'.

Table 1. The structure of the development programme of the instructors

Knowing/ Understanding	Recognizing	Evaluating	Developing	
coding	encoding	feedback	reflection	<i>INPUT in theory</i>
micro-exercises				
Knowing/ Understanding	Recognizing	Evaluating	Developing	
coding	encoding	feedback	reflection	<i>OUTPUT in practice</i>

Each step had the following objectives: to acquire the skills, to use the methods fitting to the greatest degree the operators' behaviour in the control-room, and to be able to develop these skills.

The meaning of each step:

- knowing and understanding: the instructors are able to collect the characteristics of each social skill;
- recognizing: identification of the skills;
- evaluating: deciding if the operator possesses a certain social skill, assessing the development level of the skill, and evaluating how the skills are working.

Once the instructor has the evaluation of the skills,

- he will be able to plan their development, to form the use of the missing, but needed skills.

1. The Structure of the Program

We collected scientific material on the theory of the skills to present them.

The Reading Books themes were:

Individual skills

- self-knowledge, self-assessment
- social intelligence, self-monitoring,
- emotional self-regulation
- motivation
- achievement motivation
- self-motivation
- anxiety

Social skills

- empathy
- cooperation
- interpersonal communication
- characteristics of the teams

Studying the subjects of the Reading Book gave us the possibility to understand the meanings and characteristics of the social skills. Several questions were given to the instructors, then they had to collect the answers.

We provided training for the instructors to develop their social skills and to help them to use their knowledge, abilities to recognize and evaluate operators' skills level. On this training we worked from the Reading Book and used some micro-exercises for training these skills.

2. The Programme of the Training

Day 1: Self-knowledge, self-assessment

- Collecting the trainees' expectations of the training
- Explanation of the social skills with some Hungarian synonyms
- The process of cognitive and experimental elaboration of the social 'soft' skills
- Discussion about the texts of the Reading Book: family, skills, conflicts, conflict-handling, self-knowledge, competition – jealousy.
- Exercises about self-knowledge: Me and Others. A story from my life the others did not know. (The group members have worked for 10–15 years together.)

Day 2: Motivation and empathy

Discussion about motivation and empathy

- reward and punishment
- the Pygmalion-effect
- empathy in the workplace, in leadership

Exercises for motivation

- TAT pictures from workplaces, about power, affiliation and achievement motivation.

Exercises for empathy:

- Astonishing pictures: everybody was given a picture with an astonishing story, and the observers had to guess the story on the picture from the facial movement.
- The instructors listened to a tape-recorded conversation between a customer and a call-centre operator, they had to draw the characters of the persons.

Day 3: Communication

Exercises:

- Analysis of the three communication styles: aggressive, assertive, submissive
- Exercise with the map. There were two maps, one has got the marked routes, and the other map had some differences. The task was: the person, who had the marked map had to tell the route to the other persons. The exercise was difficult, because everybody was convinced that the maps were the same.

- Exercise about life attitudes (TA) and developing positive relationships.
- Exercises about communication, emotional expressions in stress and conflicts.

After the training we had observations about instructors' and operators' work in the simulator centre. We made video recordings about these activities.

The video recordings were the resources for the coaching and discussing of the instructors' behaviour evaluation and counselling for the development of their works.

So far we have reached the level of coaching the instructors. We called it 'coaching', although it was a structured discussion about the results of this process and about the next activities for developing not only the instructors', but the operators' "soft skills" as well.

The questions were:

Did the instructors' attitude to 'social skills' change after the training?

How do they perceive the individual differences between the personalities of the operators, the relationships, and the dynamics of operators' teams?

The answers:

The instructors were able to understand, recognize and evaluate the social skills. Working with the Reading Book helped them, and the training showed how to use these skills.

The instructors have high-level professional competence, good sensitivity for human relationships (relationships with the leaders and the colleagues).

Their ways of thinking are determined by their ability to observe and to explain their own and others' personality and behaviour.

3. Summary

We think the instructors can use this knowledge of social skills, can recognize and evaluate them in the operators' behaviour. The next step of the project is to set up the method for developing these skills in the simulator exercises.

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