



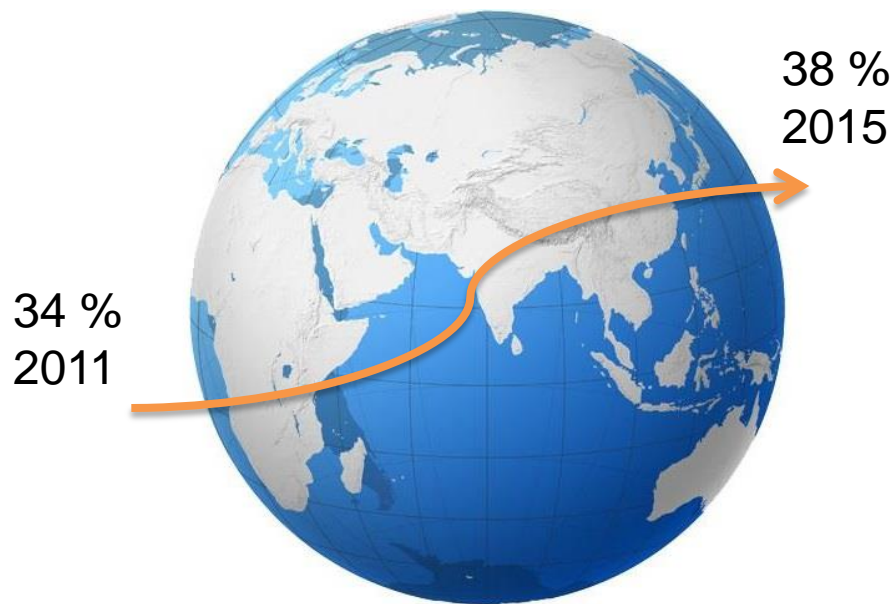
НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ
УНИВЕРСИТЕТ

Skills gap problem: Evidence for Russia's skilled labor.

Romanova Olga

Skills mismatch: global and regional perspectives

Manpower group. Talent shortage survey



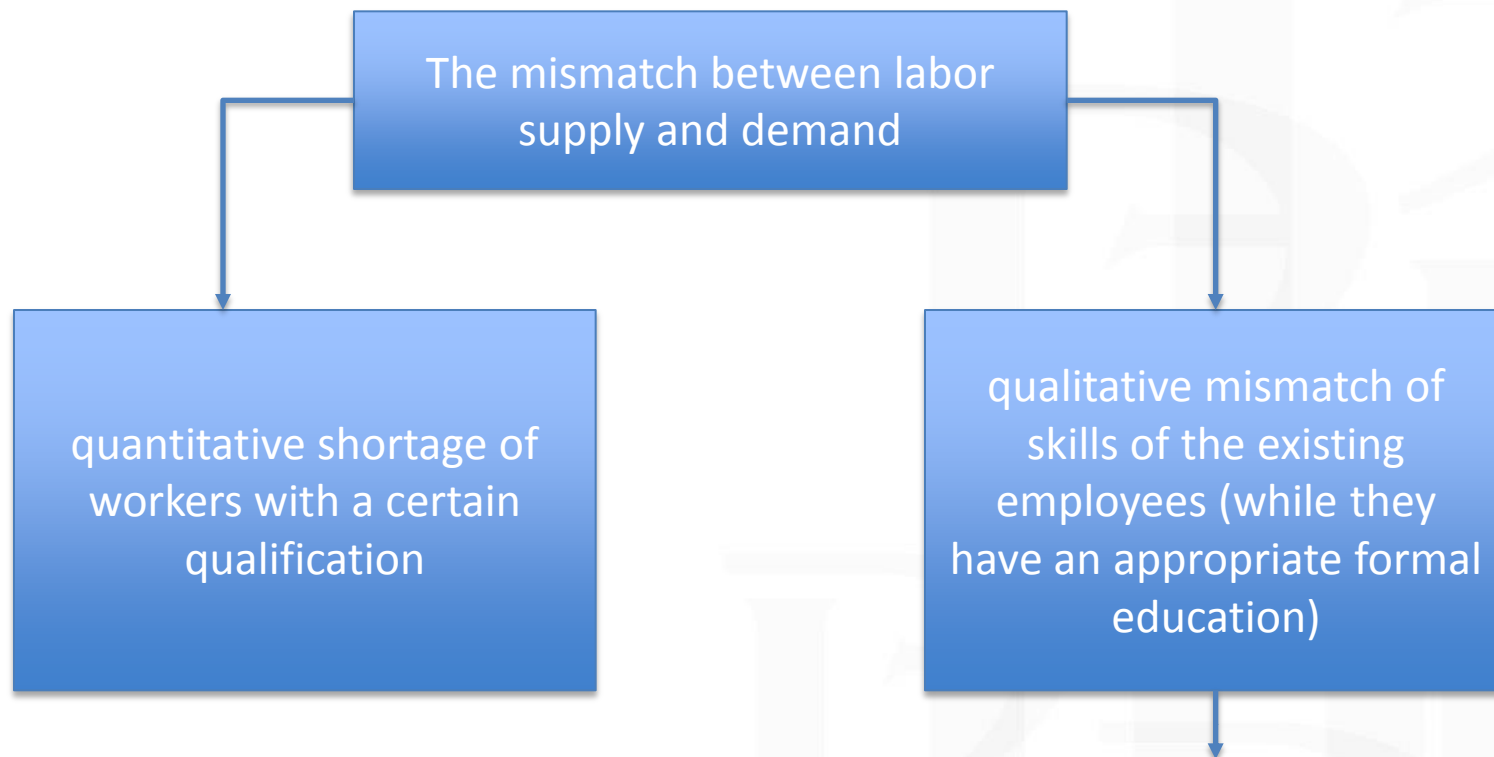
According to the 2012 UNESCO report, the skills mismatch in the labor market is one of the five most serious problems hindering business development, which were indicated among employers in both developed and developing countries

The proportion of Russian employers reporting on the shortage of skilled workers:

2013 - 49%

2014 - 35%

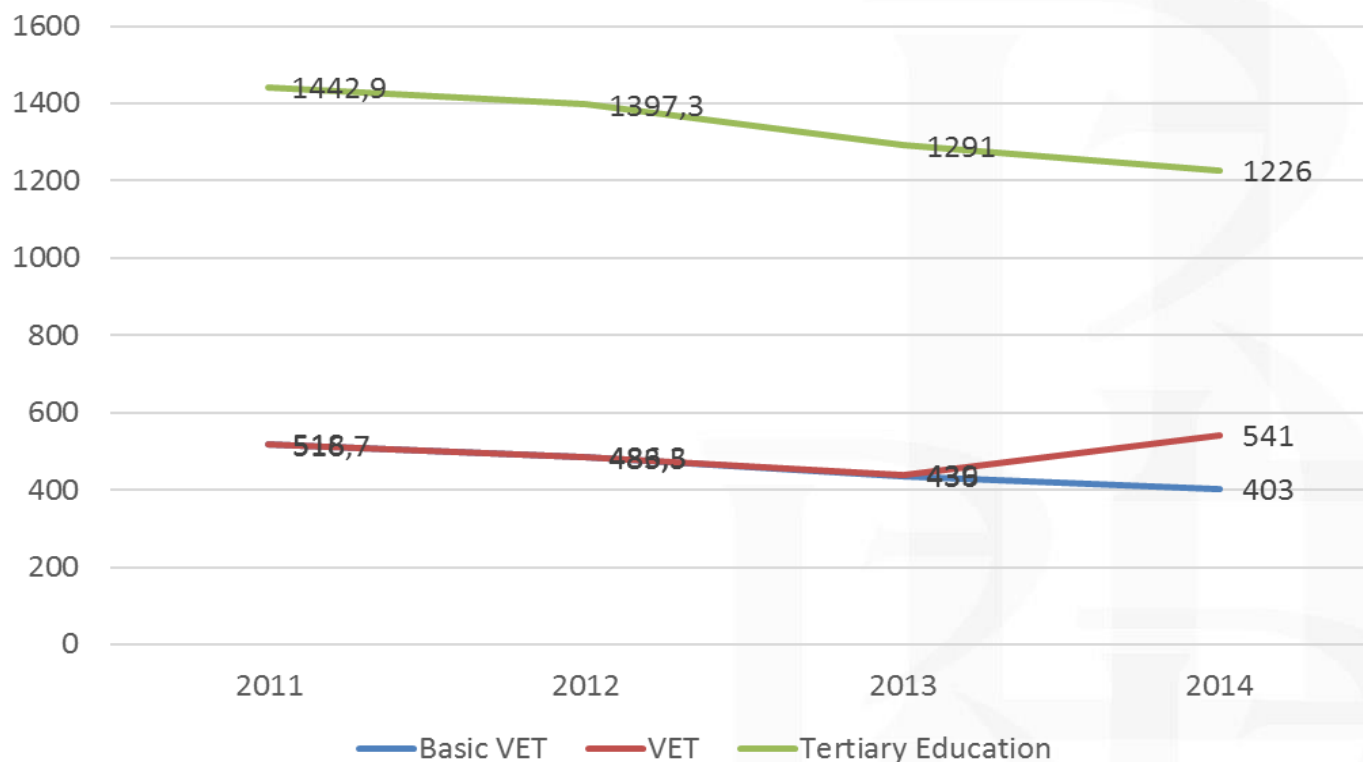
Skills gap problem



Skills gap is the difference between the existing skills of an employee and the skills required for successful work performance.

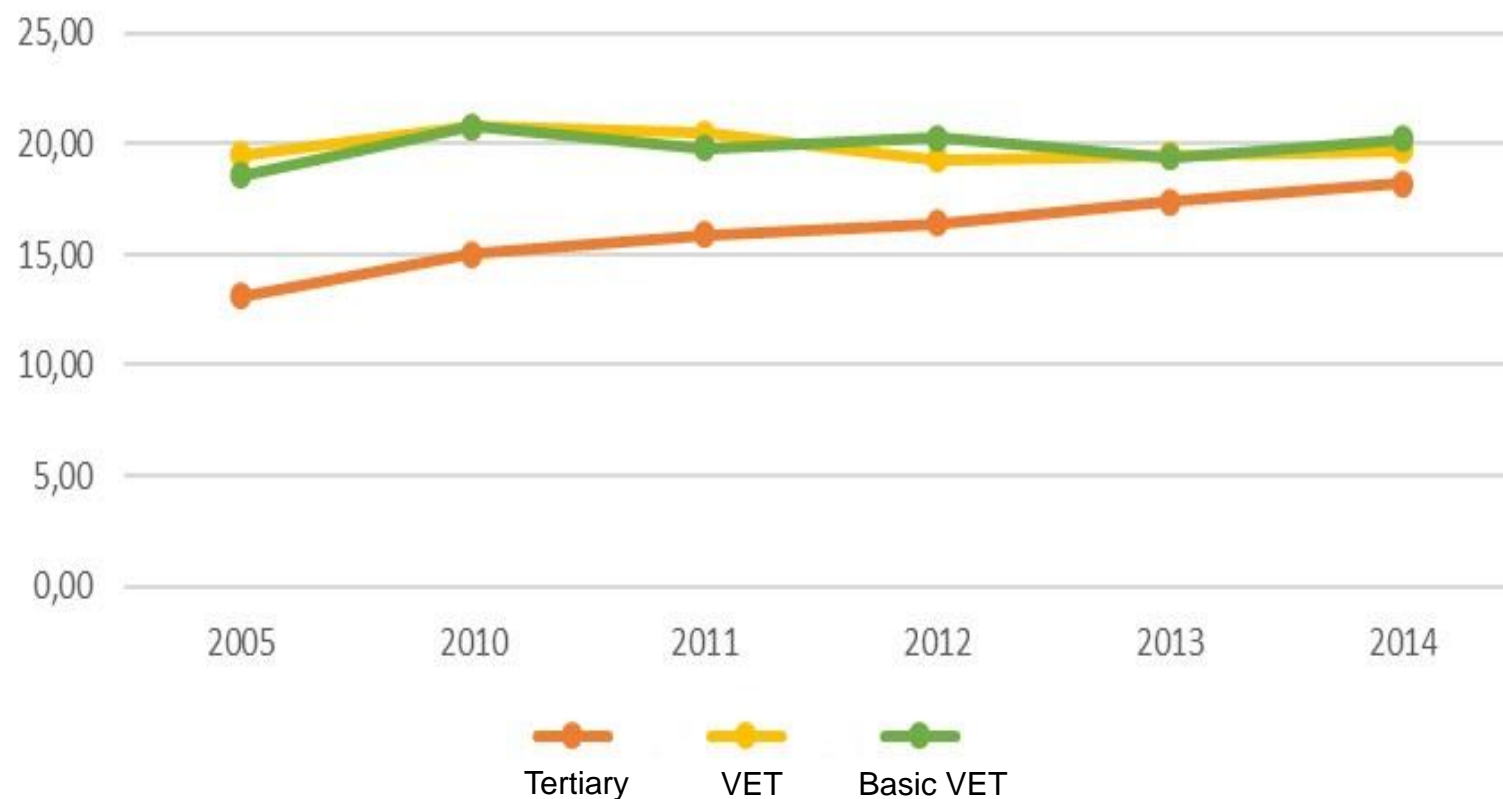
Closer look at Russian skills supply

The quantity of vocational education graduates.
(thousand people)



Unemployment

Dynamics of unemployment disaggregated according to the education levels (basic VET, VET, Tertiary)
%



- The World Bank report “Developing skills for innovative growth in the Russian Federation” 2013
- Monitoring of economy of education. “Requirements of employers to the current and perspective professional competences of personnel” 2014
- Monitoring of economy of education “An assessment of overall economic conditions at the enterprises and labor demand. Employment of graduates of the main professional educational programs.” 2016
- The Ministry of Education of the Komi Republic “Employer satisfaction with the level of job readiness of professional education graduates” 2012.

Basic VET graduates tend to lack:

- Specific technical skills
- Problem solving
- Learning skills
- Reliability and responsibility

Methods to reveal the existence of the skills gap problem

Sociological methods (surveys, interviews etc.)



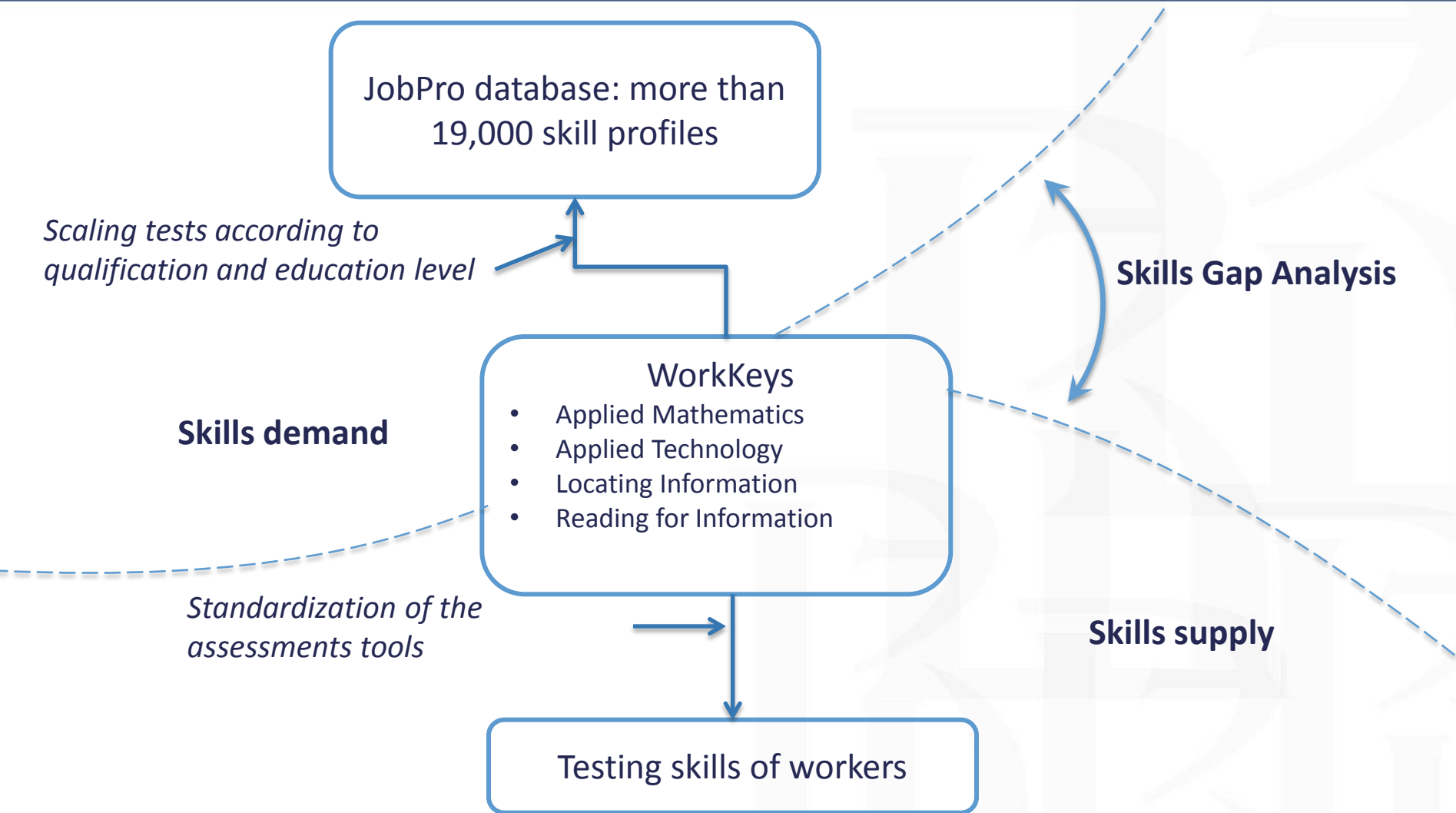
- Employer satisfaction with graduate skills: research report. /ACNielsen Research Services,2000
- Developing skills for innovative growth in the Russian Federation.//The World Bank report , 2013
- Sgobbi, F. A methodological contribution to measuring skill mismatch. // Manchester School 2013
- Tariq, M. Exploring Enterprise System Engineering Skill Gaps in the Labor Markets of Egypt and Tunisia Business// Management and Education,2014
- And many others

Tests



ACT Work Keys

ACT Work Keys



The object of this study is to determine if and to what extent the results of an objective and a subjective evaluation of the necessary and the available problem-solving skill proficiencies coincide. To achieve this goal, the following is planned:

- 1.Revealing the existence of differences between current level of problem-solving skills in their workers (skilled workers: welders, metalworkers) as determined by employers and the level that they deem necessary for successful work activities at their companies.
- 2.Revealing the existence of the difference between the level that their employees actually have and the level which is determined as an optimal one by a group of subject experts.

The first task will be performed through the use of a sociological survey (psychometric Likert scale). For the second task, it is planned to develop a test, which is based on the cognitive analysis of typical professional problems.

The traditional use of cognitive task analysis is to describe the various work procedures in order to create instructions for training purposes.

From the existing diversity of strategies for cognitive analysis we selected

- Interviews
- Observations
- Process-tracing technique, which captures how a subject expert solves a problem via think-aloud protocol of his actions, which is fixed by a researcher

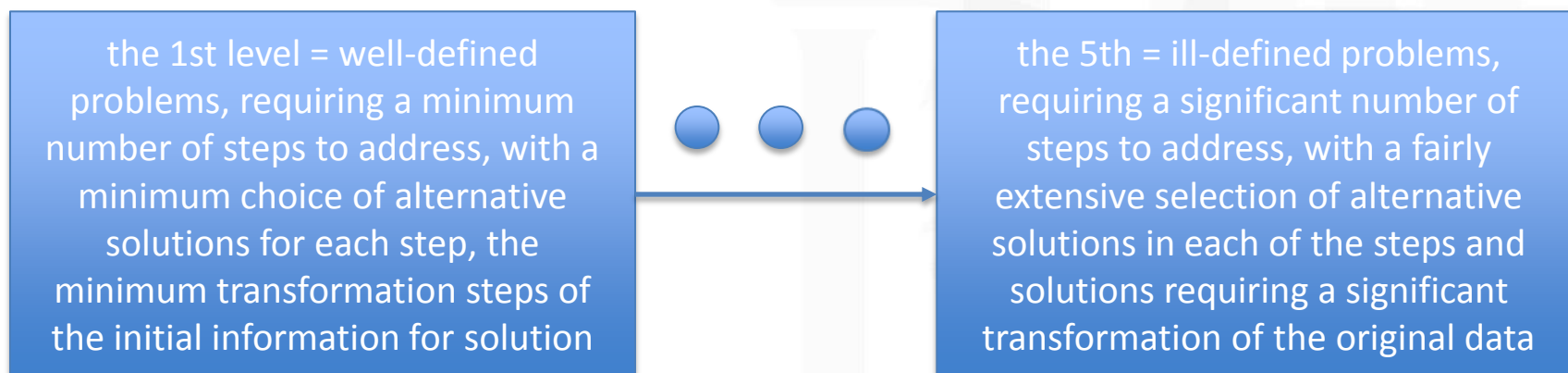
Problem solving

In OECD skills measurement programs problem solving competence is defined as the ability to solve cross-disciplinary and real-world problems by applying cognitive skills such as reasoning and logical thinking.

With regard to skilled workers, problem-solving is narrowed to professional problems, the solution of which can be found in the professional or general subjects of vocational education.

Detailed plan of the second task attainment

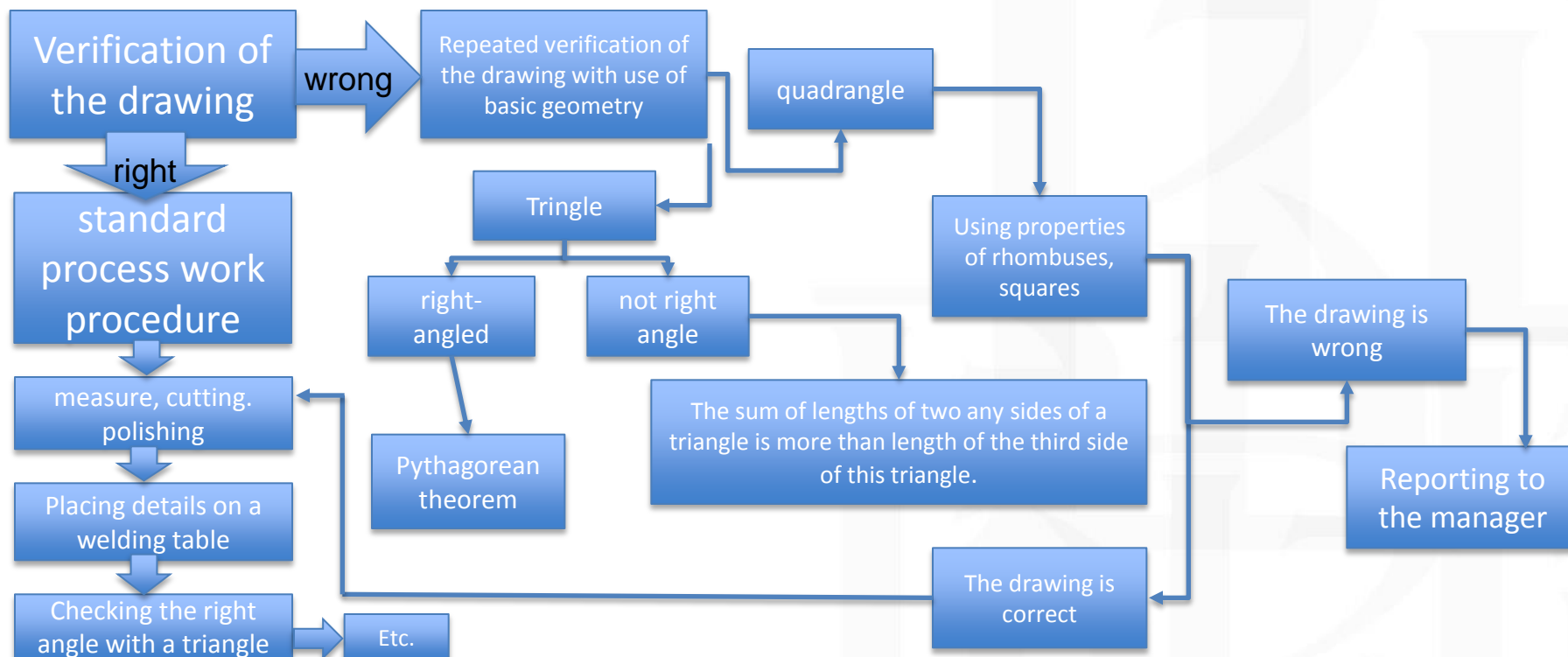
1. Identifying a set of typical problems - qualitative research (8-10 interviews) with subject experts (the structure of interviews is developed on the basis of the national professional standards, which include a detailed description of the working activities for the selected types of occupations)
2. Identifying a number of possible solutions- from 3 to 5 process-tracing sessions with various subject experts for each of the identified problems
3. Distributing the data according to 5 levels of problem-solving skill proficiency



An example of a typical problem in a welder occupation.

Typical problem: In case of performing the welding according to the drawing it turns out that the given specifications cannot result in the end product.

Algorithm of finding a solution.



Significance

- ✓ Getting the objective information about the skills gap in Russia.
- ✓ Finding out the scale of distortion in studies conducted purely with sociological means
- ✓ Development of a test that later can be used for graduates skills research.



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Спасибо
за внимание!

Thank you for your attention!

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