Project **Integration of key competences in the education system of Montenegro**

co-financed by the EU and the Government of Montenegro

**REPORTS ON TRAINING - EXAMINATION CENTRE**

**Annex No:** 7

**Place and date:** Podgorica, 09. and 10. September 2020

**Day one: 9. 9. 2020**

The training took place in the Examination Center of Montenegro. The target group was employees of the Examination Center, primarily colleagues working on national and international tests. The first day's topic was the role of testing and especially national testing in the education system. One part of the training was an open discussion on previous experiences in establishing a national survey system and the training that was realized at that time.

The discussion concluded that national testing is necessary, in order to be able to measure the parameters and progress of the education system, but that there is not enough understanding among decision makers to establish a national testing system.

The second part of the training were presentations, i.e., lectures:

1. Context and role of testing in education and
2. Characteristics of tasks.

The first lecture was about the different roles of knowledge tests in Europe and the world, their effects on the education system and the challenges that organizers have to solve. The second lecture dealt with different types of tasks and their use-value.

**Day two: 10. 9. 2020**

The training was held at the Hotel Podgorica. The target group, expect the Examination Center, were also colleagues from the Bureau for Educational Services and colleges from the Ministry of Education, ie all those who use the findings of national and international tests in their work. The development of a national examination system for several subjects has multiple roles. Therefore, a wider circle of collaborators must understand the function, possibilities, and challenges of the national examination.

During the day, two lectures were held

1. Essential statistical characteristics of tests and tasks
2. Theory of Response Theory.

Lectures are concerned with a specific topic relevant to writers' tasks, designers of tests, and analysts, but are pronounced characteristics that make all interested parties aware, for example, why it is essential that most of the tasks remain secret and not published after the test. Tests that strive to provide longitudinal study and monitor achievement, in the long run, must be calibrated and linked to bank tasks. As models, we used PISA and TIMSS studies. The delicacy of interpretation and presentation of results is especially emphasized for these studies. The final part of the training is dedicated to the possibilities for introducing a national test in the sixth grade.

For a particularly interested group of participants, a demonstration of the possibilities of software and models for the analysis of test results was organized, emphasizing the open source solution, statistical programming language R and libraries for psychometry.

All training participants received presentations and a working version of the report "Framework for National Testing of STEM Competences in Montenegro," which analyzed current needs, opportunities for conducting a national test in mathematics, science, technology and engineering.

Srdjan Verbic, Maja Jukic and Marija Nikcevic participated in this training in front of the IKCES.ME project.

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Development of the National Survey

Examination center, Podgorica

09. September 2020

**Agenda**

1. **Participants:** Employees in the examination center of Montenegro
2. **Experts who will support the training process**

**Srđan Verbić,** STEM expert

**Maja jukić,** Key Expert for teacher training

**Logistical support:**

**Marija Nikčević**, Office Manager of the Project

e-mail: [m.nikcevic@EPRD.pl](mailto:m.nikcevic@EPRD.pl), Telephone: 020 408 937, Mobile: 067 01 07 05

**Agenda**

09:00 – 10:30 Opening and introduction

10:30 – 11:00 Coffee break

11:00 – 12:30 Lecture on the context and the role of testing in education

12:30 – 13:30 Lunch break

13:30 – 15:00 Lecture on the characteristics of tasks

**Conclusions, review of the day**

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Development of the National Survey

Hotel Podgorica, Podgorica

10. September 2020

**Agenda**

1. **Participants:** Employees in the examination center of Montenegro
2. **Experts who will support the training process**

**Srđan Verbić,** STEM expert

**Maja jukić,** Key Expert for teacher training

**Logistical support:**

**Marija Nikčević**, Office Manager of the Project

e-mail: [m.nikcevic@EPRD.pl](mailto:m.nikcevic@EPRD.pl), Telephone: 020 408 937, Mobile: 067 01 07 05

**Agenda**

09:00 – 10:30 Lecture on the basic statistical characteristics of tests and tasks

10:30 – 11:00 Coffee break

11:00 – 12:30 Lecture on item response theory (Item Response Theory)

12:30 – 13:30 Lunch break

13:30 – 15:00 Talk about the possibilities for the introduction of national testing in the sixth grade.

15:30 – 16:00 Coffee break

16:00 – 17:00 Training in the use of IRT software

**Conclusions, review of the day**

**Training evaluation**

The evaluation questionnaire was completed by 11 training participants at the end of the second day

**General information**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Title of the training program** | | Development of the National Survey | | | | | | | | | |
| **Date of training** | | | 09.09 and 10.09.2020. | | | **Place of training** | | | | Examination center Hotel Podgorica | |
| **Sex** | **Male** | **Female** | | **Years in eductaion** | **0-2** | **3-7** | **8-15** | **16-25** | **26-35** | | **Over 35** |
| 2(18,18%) | 9(81,81%) | | 0 | 0 | 18,18% | 18,18% | 54,54% | | 9,09 |

**Training evaluation**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Fully agree** | **Mostly agree** | **Partly agree** | **Mostly disagree** | **Fully disagree** |
| 1. | **The training met my expectations.** | 63,63% | 27,27% | 9,09% | 0 | 0 |
| 2. | **The acquired knowledge and skills are applicable in teaching practice.** | 72,72% | 27,27% | 0 | 0 | 0 |
| 3. | **The content/topic of the training is relevant to my practice.** | 72,72% | 18,18% | 9,09% | 0 | 0 |
| 4. | **At the training, we are encouraged to think, exchange ideas and experiences.** | 81,81% | 9,09% | 9,09% | 0 | 0 |
| 5. | **The facilitators showed a good knowledge of the training area/topic.** | 81,81% | 18,18% | 0 | 0 | 0 |
| 6. | **Facilitators demonstrated developed coaching skills.** | 81,81% | 18,18% | 0 | 0 | 0 |
| 7. | **The training was realized according to the work program.** | 72,72% | 27,27% | 0 | 0 | 0 |
| 8. | **Working conditions were at a satisfactory level.** | 81,81% | 9,09% | 0 | 0 | 9,09% |
| **I intend to apply in my work**  Yes  Yes  Yes | | | | | | |
| **Additional comments, suggestions:**  Further training in data processing is required  Let policymakers hear the same | | | | | | |
| **Topics you suggest for next training**  **Data processing**  **Processing of national test results**  **Practical use of statistical software** | | | | | | |

**List of participants, Examination center of Montenegro.**

**Day one 9. September 2020**

|  |  |  |
| --- | --- | --- |
| 1. | Nataša Drakić | Examination center of Montenegro |
| 2. | Tatjana Čarapić | Examination center of Montenegro |
| 3. | Divna Paljević | Examination center of Montenegro |
| 4. | Jelovac Rajko | Examination center of Montenegro |
| 5. | Svetlana Nikić | Examination center of Montenegro |
| 6. | Dragana Nenadović | Examination center of Montenegro |
| 7. | Tatjana Vujošević | Examination center of Montenegro |
| 8. | Ivana Vukčević | Examination center of Montenegro |
| 9. | Marika Radović | Examination center of Montenegro |
| 10. | Dušica Marković | Examination center of Montenegro |
| 11. | Danilo Bošković | Examination center of Montenegro |
| 12. | Ranko Čabrilo | Examination center of Montenegro |
| 13. | Zorica Minić | Examination center of Montenegro |
|  |  |  |
| 14 | Srđan Verbić | STEM expert |
| 15 | Marija Nikčević | Office manager |

**List of participants, Hotel Podgorica, Podgorica.**

**Day two 10. September 2020**

|  |  |  |
| --- | --- | --- |
| 1. | Zorica Minić | Examination center of Montenegro |
| 2. | Marika Radović | Examination center of Montenegro |
| 3. | Tatjana Sekulić | Examination center of Montenegro |
| 4. | Svetlana Nikić | Examination center of Montenegro |
| 5. | Nataša Drakić | Examination center of Montenegro |
| 6. | Divna Paljević | Examination center of Montenegro |
| 7. | Dušica Marković | Examination center of Montenegro |
| 8. | Tatjana Čarapić | Examination center of Montenegro |
| 9. | Mirjana Rudan | Examination center of Montenegro |
| 10. | Dragana Nenadović | Examination center of Montenegro |
| 11. | Tatjana Vujošević | Examination center of Montenegro |
| 12. | Rajko Jelovac | Examination center of Montenegro |
| 13. | Ranko Čabrilo | Examination center of Montenegro |
| 14. | Ivana Vukčević | Examination center of Montenegro |
|  |  |  |
| 15. | Srđan Verbić | STEM expert |
| 16. | Maja Jukić | Key Expert for teacher training |
| 17 | Marija Nikčević | Office manager |