ONYX-Exercises as a Tool for Mathematics in an LMS like OPAL/Moodle Training Workshop

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02.07.2019

A warm welcome at
Leipzig University of
Applied Sciences
and a short portrait

Training Workshop within
"OPATEL: Online
Platform for Academic
Teaching and Learning in
Irak and Iran"

Tools for E-Learning and
E-Assessment in Saxony:
OPAL/ONYX

Training Workshop

1. A warm welcome at Leipzig University of Applied Sciences and a short portrait

2. Training Workshop within "OPATEL: Online Platform for Academic Teaching and Learning in Irak and Iran"

3. Tools for E-Learning and E-Assessment in Saxony: OPAL/ONYX

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Program of the Training Workshop

- During your Training Workshop you will gain experience how we at HTWK Leipzig use online platforms for academic teaching and learning.

- I think, Dr. Qashi and his colleagues prepared an interesting program for you.

- Today, I would like to introduce the test suite ONYX to you, which is developed by `https://www.bps-system.de/cms/index.php?id=43&L=1` .

OPAL

Learning Management System

- Content Management System for providing documents, for organizing learning and teaching, for communication between students and teachers.

ONYX

Test Suite

- Tool to create and examine E-Assessments, connected to the CAS Maxima and (NEW) to the Virtual Programming Lab VPL
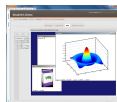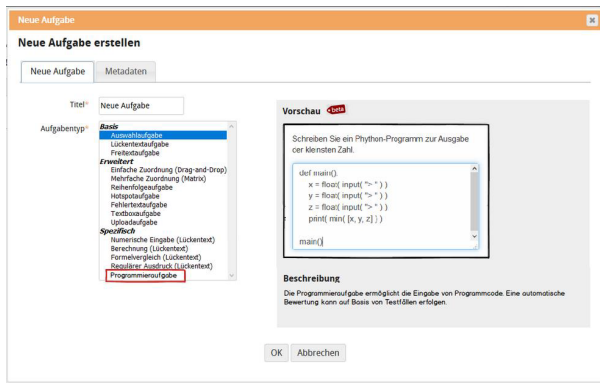- independent of OPAL, e.g. can be used with Moodle

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VPL/ONYX

I would like to show you in short, how VPL/ONYX can be used
for e-learning in programming, particularly for automated
evaluation of program code.

The Virtual Programming Lab (VPL) for
Moodle can be tested by clicking on

Autotool developed by Prof. Waldmann at
HTWK Leipzig is a stand alone alternative
and can be tested by clicking on

Autotool
Trial

Relations between OPATEL and the SMWK-Project "AutONYX"

"Formula Exercise" and "Programming Exercise" in ONYX

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"Virtual Programming Lab" VPL for Moodle has been connected to ONYX

- Input of exercises by teacher as free text

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VPL for ONYX

- Input of program code (e.g. Java, C++, Matlab/Octave) by student as free text

Programmieraufgabe

Schreibe ein Programm...

Der Roboter soll auf Tastendruck die Farbe ändern.

```
public class example {
    public static void main(String[] args) {
        System.out.println("blue");
    }
}
```

Alle Antworten abgeben

VPL for ONYX

- Evaluation using cases or your own framework via VPL

VPL for ONYX

- Detailed feedback via VPL

Thanks for your attention!