



**IT CULTURE**  
**in VOCATIONAL EDUCATION and TRAINING**  
*Methods to use IT in VET*

**Latvia, Ergli Vocational Secondary school**

**E-learning environment MOODLE development and  
use for Vocational education and training**

**Period** 24 months, 01.07 .2010. – 30.06.2012.

## Description

E environmental establishment are four main reasons.

Latvian birth rate is reducing rapidly, so that the vocational education institutions will reduce the number of students. One of the ways to keep the number of students in school is organize adult training.

Information technology is growing role in our lives, along with the educational process you need to use information technology.

In order to increase competitiveness in a changing labor market, it is necessary to acquire new knowledge and expertise, working in very difficult if not impossible to combine work with training in person. Distance learning e - environment makes it possible to learn at a convenient time, place and pace.

Also, students are changing, modern students do not like to read books, to listen lectures, but a lot of time spent at the computer, therefore the need to diversify the teaching methods.

## Objective

To create an e - learning environment Moodle for distance learning students and full-time students training

## The planned benefits

- Differentiation of training methods
- Adult students in the school
- More students - more money for school



## E- learning platform MOODLE

MOODLE - stands for "Modular Object-Oriented Dynamic Learning Environment"

Moodle is an open source course management system, originally developed by Martin Dougiamas. It is used by thousands of educational institutions around the world to provide an organized interface for e-learning, or learning over the Internet.

Moodle according to the guidelines' "2010 - the EU Master Plan for ICT" is the e-learning solution with the highest degree of accessibility for users.

MOODLE can be used in Internet-connected computer around the most popular operating systems ( Microsoft Windows, Apple Mac OS, Linux and others) and the most popular web browsers ( Mozilla Firefox, Microsoft Internet Explorer, Opera, Google Chrome, Safari and others) as well as connecting the mobile devices - mobile phones, phones, PDA, iPod, Net books.

This gives the student the opportunity to learn in public transport, home, cafe, park and elsewhere.

Martin Dougiamas is has formulated 5 MOODLE system principles:

1. All of us are potential teachers as well learners in a true collaborative environment we are both;
2. We learn particularly well from the act of creating or expressing something for others to see;
3. We learn a lot by just observing activity of our peers;
4. By understanding the contexts of others we can teach in a transformational way ( constructivism);
5. A learning environment needs to be flexible and adaptable, so that is quickly responding to the needs of the participants within.

Moodle allows educators to create online courses, which students can access as a virtual classroom.

A typically Moodle home page will include a list of participants (including the teacher and students) and a calendar with a course schedule and list of assignments.

Other Moodle features include online quizzes, forums, where students can post comments and ask questions, glossaries of terms, and links to other Web resources.

Moodle set-ups:

Key Moodle features

- Assignments
- Chat room
- Choice/Questionnaire
- Database
- Forum
- Glossary
- Lesson
- Journal
- Quiz
- Web quest



## E - learning platform's establishment background in Ergli Vocational Secondary school

### 1. Project “Pedagogical skills optimization in the information technology and communication (for wood processing enterprises)”– OPTIC

Leonardo da Vinci project was beginning of idea about on-line trying.

**Duration:** 2002.December till 2004.October

Partners FR, UK, ES, LV

**Activities -**

Training of the trainers about e-learning and IT using in learning process.





**Results and benefits:**

- Educational program
- Distance learning materials in three languages for wood processing companies' workers.
- Experience how to develop training material for distance learning

Second project which gave contribution for e-school development was European social funds project.

## **2. Project “Education program "Carpenter" development, implementation and improvement of facilities in Ergli vocational secondary school”.**

**Duration:** 01.09.2006- 31.07.2008

### **Activities**

There were different activities for Carpenter program, but for developing e-school important step was training of teachers about using Microsoft Class server.

- Training of the trainers e-learning course design and teaching with Microsoft Class server
- Web pages creating with Microsoft FrontPage 2003

Accreditation of the continuing education programs was at the same time and teacher had a big job for developing there own training materials in different subjects.

Therefore was necessary work out e-learning system, principles of training process: login, agreements with students, and so on...

### **Results and benefits:**

- E-learning platform Microsoft Class Server
- E-school start to work on January, 2007

## **3. Project “"European Arboriculture-Online“**

Duration from 01.03.2007 till 28.02.2009

### **Results and benefits:**

The project products are multimedia learning materials what are written in the various languages of the project partners and those are accessible via a learning platform.

#### **4. Project “European Transfer of Apprentices and Methodologies in Ecoconstruction TEAM ECOCONSTRUCTION”.**

**Duration from** 01/10/2008 till 30/09/2010

##### **Results and benefits:**

Training program in ecoconstruction and developing three modules for online training.

References: [www.leonardo-teamecoconstruction.eu](http://www.leonardo-teamecoconstruction.eu)

#### **5. Project „European Wood Construction Managers Online Training”**

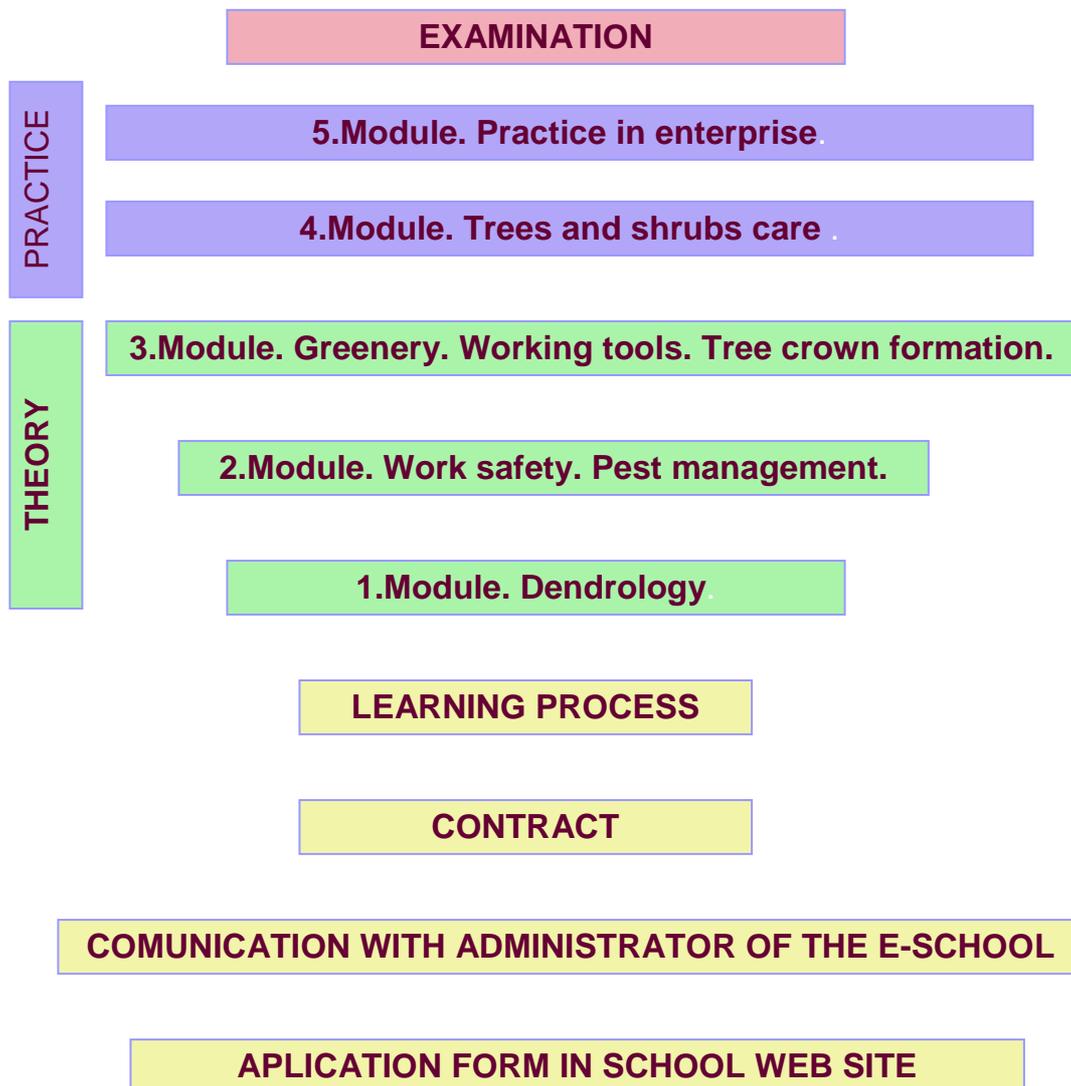
**Duration from** 01.10.2009 till 30.09.2011.

The main activity is create training material for wood construction managers

##### **Objective:**

To develop e - learning material based on actual and existing curriculum

## The structure of learning process for arborist program



Principles of structure are similar for all programs. Application, communication by telephone or e-mail, contract and other documents we often send by post.

### Principles of developing training material

- Introduction (for module)
- Objectives (explanation what kind of knowledge and skills we obtain)
- Key words (new terms)
- Content
- Other recommended literature, links.
- Tests

## **E – Learning platform MOODLE implementation in Ergli Vocational Secondary school**

- On 2009 came be at an end the contract with Microsoft Class Server was finished
- We started discussing about the possibility of to introduce DOCEOS e-learning platform
- We start to organize our e-learning courses on MOODLE on 2010 because most of schools and universities in Latvia use MOODLE platform. In addition, MOODLE platform is easier to create and use than DOKEOS.

Students groups what are involved in project:

- Distance learning students;
- Hotel service students' groups – VS 2, VS 3; VS 4
- Arborists

### **What is necessary for e - learning platform implementation?**

- To develop training equipment, technical base – new computers, on-line platform
- To teach trainers
- Programs for on-line training
- Training materials
- Advert

### **Activities**

- Forming the team of teachers
- Clarification of project objectives
- Training session about E- learning platform MOODLE

- Teaching material insertion in e - environments.
- Adapting MOODLE platform to the VET curriculum
- Announcements in Teachers councils and Methodical council E - learning activities by MOODLE platform
- Popularizing and disseminating the project articles in newspapers, posters, folders)

## How to work with e - learning environment MOODLE

The first step is connecting Moodle e - learning server

The screenshot shows the website of Ergli Vocational Secondary School (Ergļu arodividusskola). The page layout includes:

- Header:** Logo of Ergļu arodividusskola, search bar, and language flags (Latvian and English).
- Left Navigation Menu:**
  - Aktualitātes
  - Programmas
  - Stundu saraksts
  - Tālmācība
  - Uzņemšana
  - Audzēkņiem
  - Skolas vēsture
  - Projekti
  - Valsts iepirkumi
  - Komerccdarbība
  - Kontakti
  - Vietnes karte
  - Budžets
- Main Content Area:**
  - Jaunumi skolas dzīvē** (News from school life)
  - Esi par profesiju?** (Are you a professional?) - dated 03.08.2011
  - Video Player:** A video titled "nāc mācīties!" (Come learn!) with the URL [www.ergliarods.lv](http://www.ergliarods.lv).
  - Text:** "Aizpildi pieteikumu elektroniski [šeit!](#)" (Fill out the application electronically [here!](#)) and "Informācija par mācību programmām skaties [šeit!](#)" (Information about study programs see [here!](#)).
  - EWCM - OT noslēguma seminārs** (EWCM - OT closing seminar)
- Right Sidebar:**
  - 26. Oktobris, 2011 Vārda dienu svini:** Kaiva, Amanta, Amanta
  - Aptauja** (Poll): "Kādu izstādi tu apmeklēsi vai jau esi apmeklējis izstāžu centrā BT1?:" (Which exhibition will you visit or have you already visited at the BT1 exhibition center?). Options include RIGA FOOD, PET EKSPŌ, BALTIC FURNITURE, MĀJA. DŽĪVOKLIS, and nevienu (none).
  - Ērgļu arodividusskolas jaunumi** (News from Ergli Vocational Secondary School)
  - E-pasts:** \* (Email field)
  - Pierakstīties (Subscribe)
  - Atrakstīties (Unsubscribe)

E - Learning environment is found in Ergli Vocational Secondary school's site

[www.ergliarods.lv](http://www.ergliarods.lv)

Aktualitātes

Programmas

Stundu saraksts

Tālmācība

Uzņemšana

Audzēkņiem

Skolas vēsture

Projekti

Valsts iepirkumi

Komercdarbība

Kontakti

Vietnes karte

Budžets

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Tālmācības programmas

Guļbūves ēku celtnieks

Kokkopis - arborists

Namdaris

Pavārs

Viesmīlis

Viesmīlības pakalpojumu speciālists

## Jaunumi skolas dzīvē

### Esi par profesiju?

03.08.2011



**Aizpildi pieteikumu elektroniski [šeit!](#)**

**Informācija par mācību programmām skaties [šeit!](#)**

### EWCM - OT noslēguma seminārs

19.10.2011



22.10.2011. Ķīpsalā izstādes „Māja.Dzīvoklis 2011” laikā notiks skolas realizētā Leonardo da Vinci projekta „Eiropas koka ēku celtniecības uzņēmumu vadītāju apmācība e-vidē” (*European Wood Construction Managers Online Training - EWCM-OT* (Projekta Nr. 2009-1-LV1-LEO05-0351)) noslēguma semināra prezentācijas pasākums.

**26. Oktobris, 2011**

**Vārda dienu svin:** Kaiva, Amanda, Amanta

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### Aptauja

**Kādu izstādi tu apmeklēsi vai jau esi apmeklējis izstāžu centrā BT1?:**

- RIGA FOOD
- PET EKSPŌ
- BALTIC FURNITURE
- MĀJA. DZĪVOKLIS
- nevienu

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### Ērgļu arrodvidusskolas jaunumi

**E-pasts: \***

- Pierakstīties
- Atraksīties



In the block „Distance Learning Programs" student chooses the program and opens the total course

Kursu kategorijas: Ērgļu arodividusskola / Pavārs

Darba aizsardzība P TM  
Skolotājs: Andris Spaile

Ēdienu gatavošanas tehnoloģija P TM  
Skolotājs: Ilze Tālmane

Pārtikas produktu zinības P TM  
Skolotājs: Ilze Tālmane

Sanitārija un higiēna P TM  
Skolotājs: Ilze Tālmane

Uzņēmuma aprīkojums un inventārs P TM

Uzņēmuma darba organizācija P TM

Uzskaitē un kalkulācija P TM

Meklēt kursus:

Aiziet!

Jūs neesat pieslēdzies. (Pieslēgties)

Sākums



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The student selects the necessary courses (subjects)

## Vai atgriežaties šajā tīmekļa vietnē?

Pieslēdzieties šeit, izmantojot savu lietotājvārdu un paroli.  
(Jūsu pārlūkprogrammā jābūt iespējotiem sīkfailiem.) ?

Lietotājvārds

Parole

Daži kursi var atļaut viesu piekļuvi

Vai aizmirsāt savu lietotājvārdu vai paroli?

Jūs neesat pieslēdzies. (Pieslēgties)



E-mācību vide tiek nodrošināta sadarbībā ar Latvijas Universitāti

Jūs neesat pieslēdzies. (Pieslēgties)



E-mācību vide tiek nodrošināta sadarbībā ar Latvijas Universitāti

Login block fills the fields *Username* and *Password*

## Moodle course home page features

Navigation path

Course title

User information (profile)

Exit

The screenshot shows a Moodle course home page for 'Pārtikas produktu zinības P TM'. The page is annotated with several labels and arrows:

- Navigation path:** Points to the breadcrumb 'Skolas > EAV pārt.prod.zinības'.
- Course title:** Points to the main course title 'Pārtikas produktu zinības P TM'.
- User information (profile):** Points to the user profile information 'Jūs esat pieslēdzies kā Ilze Tālmane: Skolēns (Atgriezies savā parastajā lomā)'.
- Exit:** Points to the 'Atgriezies savā parastajā lomā' button.
- Theme (course section):** Points to the first section title '1 Dārzeni, augļi, ogas, sēnes, rieksti un to pārstrādes produkti'.
- MOODLE blocks:** Points to the list of resources and activities under the first section.
- Resources and activities:** Points to the list of resources and activities under the first section.

The page layout includes a left sidebar with navigation blocks (Personas, Aktivitātes, Meklēšana forumos, Administrēšana, Mani kursi) and a right sidebar with activity blocks (Jaunākās ziņas, Gaidāmie notikumi, Pēdējās aktivitātes). The main content area displays a list of course sections and their associated resources.

All Moodle courses have identical the basic page's structure - head, a central part with the course sections and both sides laid out the blocks.

Course sections are located in the central part of the site that makes up the same rate structure.

Head appears on the page title of the course and user information appears in the page head, and it is possible to turn the page editing mode or switch to a student's role in the course of testing.

The blocks are placed in the page margins. This allows quick and easy access to resources or to publish information such as course news.

Navigation and work in Moodle is a traditional web application style.

The course structure consists of sections of the course. They are located in the central part of the page. Course and teaching material (resources) and activities are published in sections.

Sections are designed for course materials (resources) and activities for publication - presentations, video production, tests, etc. additional training materials.

Each Moodle user is available in a personal profile, where the user is able to present data about themselves. This is important for effective communication for organizing the study process.

Depending on the course of teaching styles and materials for laying out the needs of the course selected format.

We have chosen the topics format. This format can be used where students learn different concepts, but it learning is not strictly tied to the calendar.

First, specify the number of topics. Each theme is created section. There are the course materials in the section.

Topics may be form like the book chapter (in each topic can be placed, for example, a summary of the chapter, the slides, homework tasks and test) or to group resources (abstracts, objectives, slides, the tests are placed each in its own section).

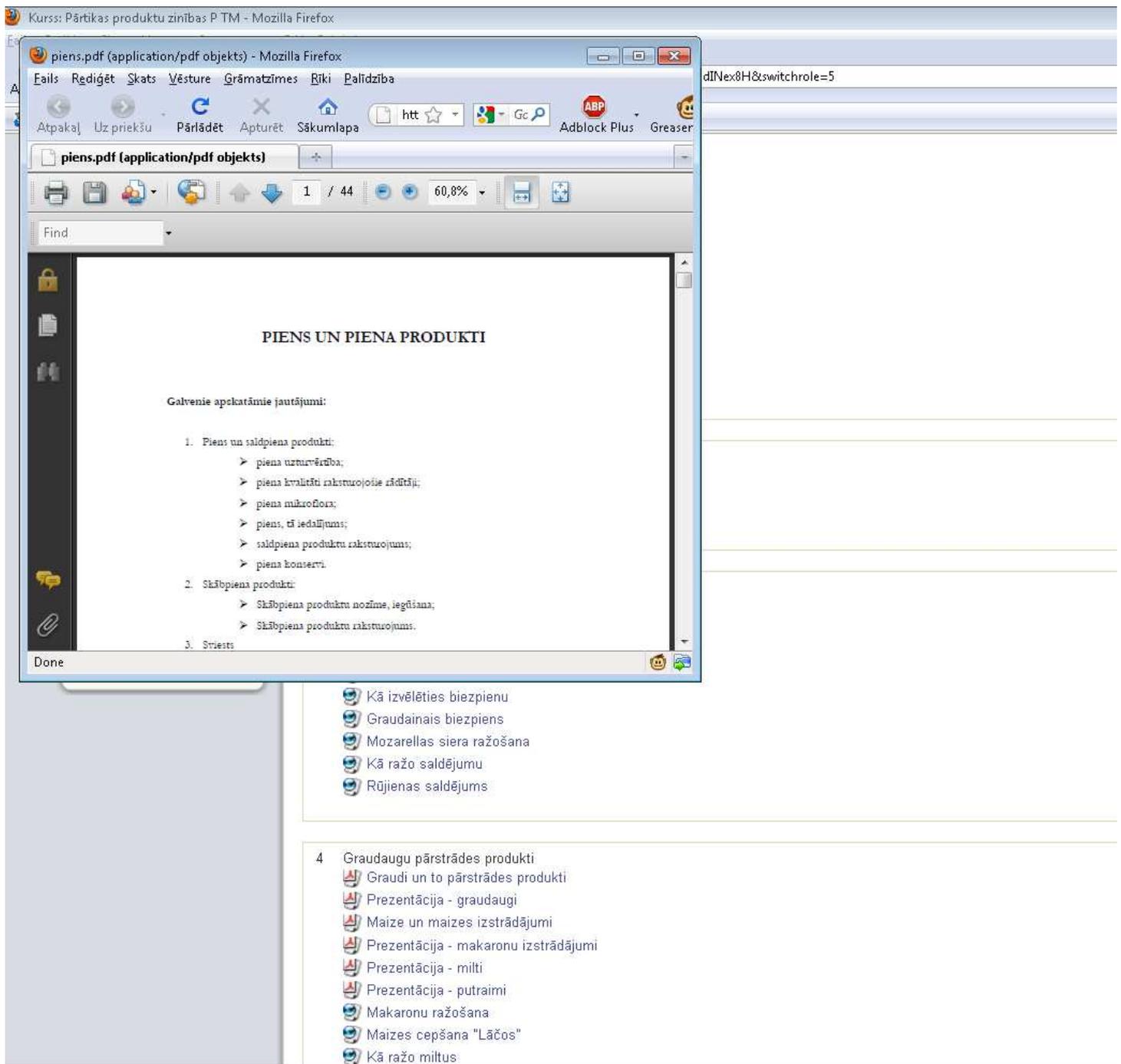
All study materials, we first turn into PDF format and then add to e – platform.

Resources section of the course allows you to display static information, such as text captions, images and links to files or Web pages.

Over the training materials for each course has created a new forum for news publicity.

Page edges are placed in blocks, which allow quick and easy access to resources or to publish information such as course the news.

Note: The news Forum is a special forum where messages can only be added to the course instructors. This forum published messages are automatically sent to the e-mail to all registered participants.



Student clicks on the selected training material link  
Training material opens either in the same window or new window

piens.pdf (application/pdf objekts) - Mozilla Firefox

Atpakaļ Uz priekšu Pārīdēt Apturēt Sākumlapa <http://skolas.lv/file.php/102/piens.pdf> ☆ Google

piens.pdf (application/pdf objekts)

12 / 44 100% Find

### Saldejuma raksturojums

Saldejuma veidi	Tauki	Cukurs	Skabums
Krejuma saldejums	Lidz 10%	Lidz 14%	Lidz 22 <sup>o</sup> T
Krejuma augļu - ogu saldejums	Lidz 8%	Lidz 14%	Lidz 50 <sup>o</sup> T
Piena saldejums	Lidz 3,5%	Lidz 14%	Lidz 22 <sup>o</sup> T
Plombirs	Lidz 15%	15 – 16%	
Augļu – ogu saldejums	-	Lidz 27%	Lidz 70 <sup>o</sup> T



- saldejuma kvalitātes prasības

Gatavam saldejumam jābūt ar izlīdzinātu krāsu, viendabīgu struktūru, bez ledus kristāliņiem, tīru, šķirnei raksturīgu garšu un smaržu. Saldejumam ar riekstu, ogu vai augļu piedevu pieļaujama neviendabīga krāsa.

### An example of training material - text

Since our school teachers are prepared in digital form training materials already, there is no need to develop training materials directly to Moodle, since any type of digital content, which is prepared on your computer, you can upload a Moodle course and published online for students and course resources. In this way, the course may be prepared in Word and PDF documents, PowerPoint presentations, audio and video files or other content.

Most types of files can be uploaded and accessed through Moodle but the student needs to have the correct software to be able to open them.



An example of training material - presentation

### Activities

The Quiz activity module allows the teacher to design and build quizzes consisting of a large variety of Question types, including multiple choices, true-false and short answer questions. These questions are kept in the Question bank and can be re-used in different quizzes.

Quizzes can be configured to allow multiple attempts. Each attempt at a question is automatically marked, and the teacher can choose whether to give feedback and/or show the correct answers.

There are many ways to use a quiz.

29

Punkti: --/2

Kāpēc uzturā labāk lietot rupja maluma maizi?

Atbilde:

Rupja maluma maize satur vairāk vitamīnu un minerālvielu, tāpēc ir veselīgāka.

Iesniegt

Saglabāt bez iesniegšanas

Iesniegt lapu

Iesniegt visu un pabeigt

Jūs esat pieslēdzies kā Ilze Tālmāne: Skolēns (Atgriezties savā parastajā lomā)

EAV pārt.prod.zinības



E-mācību vide tiek nodrošināta sadarbībā ar Latvijas Universitāti

The essay question type is intended for short answers of a paragraph or two that one often finds on exams. For longer essays, online text assignment or upload a single file assignment is better choices.

The test is set up from the question bank with questions.

We usually choose essay-type tests, because we believe that its students develop the ability to speak and we can get a more accurate picture of student knowledge. Of course, we can not use the automatic correction of the test that the teacher requires a lot of time.

## Assignments

With the tasks given to the teacher trainees own work, for example, to submit an essay, a study, prepare a presentation.

Course supervisor may give the e-environment members of three different types of tasks:

1. In order to accomplish their task, students need upload one or more files from their computer, such as text documents, pictures or audio files.

2. The participants must do one's task.

3. The task is only for information and the participant is not required any formal action.

Teacher evaluated the work and provides comments.

Also, adding the assignment is task for next year

For all this year of study we use MOODLE for full time students training, and only to a multimedia projector help demonstrate the learning materials.

It is very convenient because we do not need no discs, no flash, only access to the Internet, all materials are posted on the school e - environment.

We have created many links to Web sites and I can show movies, pictures or anything else quick and simple.

Moodle making us relieved that we had already prepared all the training materials in digital format.

Ilze Tālmāne

Profils

Rediģēt profilu

Foruma publicētās ziņas

Blogs

Atskaites par aktivitātēm



Valsts: Latvija

Pilsēta: Ērgļi

E-pasta adrese: it002eav@lanet.lv

Kursi: Ēdienu gatavošanas tehnoloģija P TM, Pārtikas produktu zinības P TM, Sanitārija un higiēna P TM, Uzņēmuma aprīkojums un inventārs P TM, Uzskaites un kalkulācija P TM

Pirmā piekļuve: pirmdiena, 2011. gada 23. maijs, 21:38 (156 dienas)

Iepriekšējā piekļuve: trešdiena, 2011. gada 26. oktobris, 21:46 (tagad)

Lomas: Skolotājs

Atcelt manu reģistrāciju kursā EAV pārt.prod.zinības

Ziņas

Jūs esat pieslēdzies kā Ilze Tālmāne: Skolēns (Atgriezties savā parastajā lomā)

EAV pārt.prod.zinības



E-mācību vide tiek nodrošināta sadarbībā ar Latvijas Universitāti

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