THE KAZAKH MODEL
OF THE ELECTRONIC LEARNING SYSTEM (E-LEARNING)

Nurgalieva G.K.,
D. Ed., Professor,
President of JSC «National center of informatization (NCI)»,
Supplementary office «National scientific and technological holding «Parasat»
Ministry of education and science of the Republic of Kazakhstan
The state development programme of education of the Republic of Kazakhstan for 2011 – 2020, approved by a Decree of the President of the RK Nazarbayev N.A. No.1118 as of 07.12.2010.
Stages of the project

- 2011: 44
- 2012: 537
- 2013: 926
- 2014: 1317
- 2015: 1311

Up to 90% of the total

Number of educational institutions

...
Digital educational resources on „History of Kazakhstan“, grades 5 -11 (2011)

Total: 468 DER
Results of testing of digital educational resources of History of Kazakhstan in pilot schools of Astana, Almaty, Karaganda

2011, the National Center of Informatization is developing digital educational sources on the history of Kazakhstan, forms 5 to 11 in Kazakh and Russian languages - altogether 468 of DES. Digital educational sources can be used at different stages of a lesson: explanation of new material, during final review, revision and independent work, which makes the lesson more complete, include even those students the working process who were not interested in the subject.
### List of digital educational sources (DES) for schools (2012)

<table>
<thead>
<tr>
<th>Content for COO</th>
<th>Language</th>
<th>FORM</th>
<th>Number according to years</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Kazakhstan</td>
<td></td>
<td></td>
<td>5069</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Kaz.</td>
<td>59</td>
<td>2011</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Rus.</td>
<td>59</td>
<td>2012</td>
</tr>
<tr>
<td>Algebra</td>
<td>Kaz.</td>
<td>79</td>
<td>2011</td>
</tr>
<tr>
<td>Algebra</td>
<td>Rus.</td>
<td>79</td>
<td>2012</td>
</tr>
<tr>
<td>Geometry</td>
<td>Kaz.</td>
<td>62</td>
<td>2011</td>
</tr>
<tr>
<td>Geometry</td>
<td>Rus.</td>
<td>62</td>
<td>2012</td>
</tr>
<tr>
<td>Physics</td>
<td>Kaz.</td>
<td>70</td>
<td>2011</td>
</tr>
<tr>
<td>Physics</td>
<td>Rus.</td>
<td>70</td>
<td>2012</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Kaz.</td>
<td>118</td>
<td>2011</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Rus.</td>
<td>118</td>
<td>2012</td>
</tr>
<tr>
<td>Kazakh language</td>
<td>Kaz.</td>
<td>138</td>
<td>2011</td>
</tr>
<tr>
<td>Specialties</td>
<td>Subject</td>
<td>Language of instruction</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
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<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>0508000</td>
<td>-Basics of nutrition</td>
<td>210 kaz &lt;br&gt; 210 rus</td>
<td></td>
</tr>
<tr>
<td>0513000- Marketing, specialty</td>
<td>71 kaz &lt;br&gt; 71 rus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>051304 2- Commerical agent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1119000</td>
<td>Fridges and compressor machines and equipment</td>
<td>135 kaz &lt;br&gt; 135 rus</td>
<td></td>
</tr>
<tr>
<td>1226000 Technology and organization of production</td>
<td>53 kaz &lt;br&gt; 53 rus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0515000 – «Management (on branches and и областям application»</td>
<td>22 kaz &lt;br&gt; 22 russ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0518000 «Accounting and audit»</td>
<td>32 kaz &lt;br&gt; 32 rus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1201000 – «Technical maintenance, repairs and operating the automobile transport»</td>
<td>414 kaz &lt;br&gt; 414 rus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1304000 «Computer engineering and software»</td>
<td>50 kaz &lt;br&gt; 50 rus</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Developer - JSC «National centre of informatization (NCI)» & Consortium of suppliers of DER
**School Management System (hereinafter SMS)** is software that can make the process of school management automatic.

Users of School Management System (SMS):

- director;
- deputy director on academic matters;
- deputy director on educational matters;
- teachers;
- supervisors,
- students;
- parents;
- librarians;
- medical workers;
- SMS administrators

### Modules of school management system SMS

<table>
<thead>
<tr>
<th>School history</th>
<th>Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans</td>
<td>Statistics</td>
</tr>
<tr>
<td>Timetable</td>
<td>Accounting office</td>
</tr>
<tr>
<td>E-journal</td>
<td>Library</td>
</tr>
<tr>
<td>E-diary</td>
<td>Nutrition</td>
</tr>
<tr>
<td>Educational work</td>
<td>Doctor’s office</td>
</tr>
<tr>
<td>Summary of students‘ progress</td>
<td>Communication</td>
</tr>
<tr>
<td>Documents</td>
<td>Import of initial data</td>
</tr>
<tr>
<td>Нагрузка</td>
<td>Integration with LMS</td>
</tr>
</tbody>
</table>
LEARNING MANAGEMENT SYSTEM (LMS)

Learning modules of the Learning Management System (LMS):
- Module of learning programmes
- Module of digital educational sources
- Module of individual didactics studies
- Module of individual classes
- Module of announcements
- Module of Internet resources

Office of a teacher

Student ➔ Guest ➔ Student ➔ Administrator
**Test Management System (TMS)** – is a software for monitoring progress, interim and final inspections of students' knowledge of educational establishments, preparing students for intermediate state control (ISC) and the Unified National Testing (UNT).

The created tests should correspond to all SCORM standards.
Electronic methodic system (MMS)

Office of a history teacher

System moderators

Photos of 2 moderators

Registration of system users

Online community of historians and history teachers

Chat Forum

User instructions for MMS system

Discoveries in historical sciences

Professiogramm of a history teacher in the light of informatization of education

Skills monitoring of history teachers - system users on integrating the pedagogical, information and communication technologies (ICT)

Distance advanced pedagogical training for history teachers

1 level IT skills of a history teacher

2 level Working with information and search engines online

3 level System of electronic learning of the Republic of Kazakhstan (e-Learning)

4 level Methods of usage of digital educational sources (DES) in «History of Kazakhstan»

5 form 6 form 7 form 8 form 9 form 10 класс 11 класс

5 level Usage of electronic history books
Electronic psychological and monitoring system of developing an individual (PsMS)

- Office of a supervisor
- System moderator

**News**
- Regulatory provision
- List of 24 items

**Pedagogical concepts of educating an individual**
- Local
- Foreign

**Historical concepts based on modules of**
- Intellectual development
- Spiritual and moral development
- Social and legal development
- Cultural development
- . . .

**Announcements:**
- Analysis of personal qualities of a supervisor
- Calendar of extra-curricular events
- Subjects of classroom hours
- Samples of classroom hours

**Model of a supervisor**
Portraits of a student of 2020

**Model of a graduate**

**Monitoring of student's development**

**Diagnostics methods**
- To be used on a daily basis at work

- Cognitive development
- Speech development
- Intellectual development
- Psychodiagnosis
- Social interaction
- Emotional sphere
- . . .

**Methodical practical courses of distance learning for supervisors**

**User instructions for PsMS System**

**System moderator**

- Primary school
- Main school
- Secondary schools
- Colleges
Management of professional orientation system PrOS

- Professional education
  - supplying the youth with information on the world of professions, educational establishments, opportunities
  - encouraging the youth to be hardworking, efficient, responsible at a work place

- Professional training
  - Psychodiagnostical complex
  - Professional orientation testing

- Professional consulting on choosing a career path
  - Psychologists' recommendations
  - Psychological tests
  - Studying professional intentions of graduates, motives for choosing a career

- Professional development of a personality
  - Professiogramms
  - Psychologists' consulting
  - Trainings and development

- Office of a supervisor

- Classification of professions
- Reference of professions
- General information about professions
- Knowledge and skills
- Requirements to individual particularities (including medical conditions)
- Registering educational establishments according to codes
- The world of professions, Psychologists' recommendations
- Development and correction trainings
- Coordination of professional orientation activities
- Data analysis and corrections
- Recommendations, trainings, study materials etc.

Transfer of data to NED
System of social collaboration (MSCC)

Legal documents

Qualifications classifier

Standards and educational programs

Internships

Studying methods of professional skills

Skills monitoring of specialists

Employment market

Sites of employers and public organizations

Trainings, master-classes, educational seminars

Forums
PREPARATION AND ADVANCED TRAINING OF SYSTEM USERS

Contractor - JSC "Orleu"

Training on using technologies of «System of electronic learning (e-Learning)»

Training on using technologies of Digital educational sources (DES)
JSC «National centre of informatization (NCI)
050036, г. Алматы, Жандосов, 61а,
tel 8 (727) 309-29-08, 309-29-17
e-mail: rcie@mail.ru

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