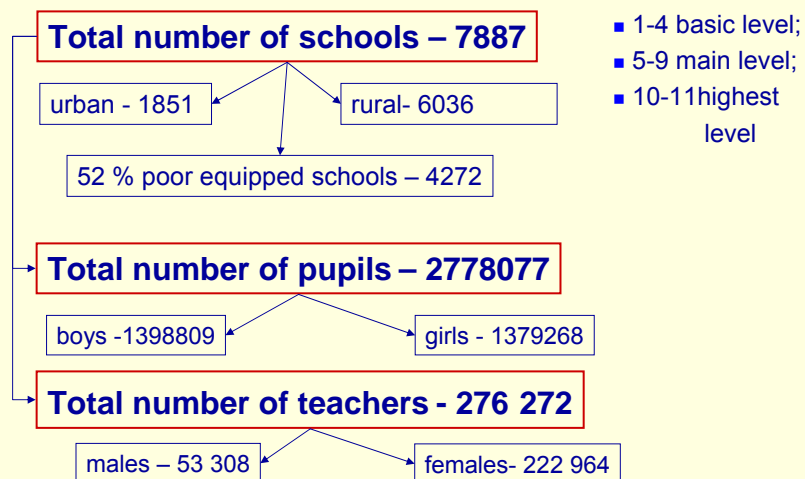


**IDENTIFYING, DEVELOPING, EVALUATING,
TESTING and USING LOCAL e-CONTENT.**

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SECONDARY EDUCATION SYSTEM OF THE RK (2005)



In 2008 the 12 year education will be put into operation in Kazakhstan

I-st level – primary education (1-4 gr.).

II-nd level – secondary education (5-10 gr.).

III-rd level – secondary education, vocational education (11-12 gr.).

GOVERNMENT POLICY AND STRATEGY DEVELOPMENT OF ICT

- State program on informatisation in Secondary Education System (1997-2002)
- State program on informatisation in Vocational Education System (2001)
- Interdepartmental program «Internet to schools» (2001)
- Concept of informatisation in education system of the RK (2001)
- Informatisation Act of the RK 2003
- State program on education development in the RK (2005 – 2010)
- State program on decrease of digital inequality (2006-2008)

COMPUTERIZATION

- **100% school are computerized. Pupil number per 1 computer – 24.**
- **Peripherals:** printers, speakers, UPS, CD-ROM, scanners, TV sets, projectors, video recorders, players
- **Multimedia lingual laboratories – 30% of school**
Pentium 4, Celeron, m/m projectors, scanners, laser printer, interactive board
- **In 2007 interactive boards will be delivered for 2000 schools**
- **In future – Multimedia interactive educational system**
with computer measuring systems and interactive boards,
mobile computer rooms, servers

Issues:

- *replacement of the out-of-date computers (13768 units)*
- *deliver the additional set of digital/analog video cameras, digital photographic, web- cameras.*
- *monitoring of effective using the technology through indicator «Computer time to one pupil».*

CONNECTIVITY

- 7311 schools have an INTERNET connection (95% schools)
- Connection through the modem:
 - digital ATC – 2893 schools
 - analog – 3589 schools
- Connection through selected channel – 528 schools
- Connection through satellite – 2000 schools
- There is an positive experience of connection to the INTERNET through the acceptance and transferring antenna (Southern-Kazakhstan)
- «Satellite channel of distance education» (SCDE) with feedback through SDE «Prometey»
- Distance education portal “MOODLE” is created
- Schools are going to be connected to the non-limit and broadband channel connection
- Information and communication education environment based on integration with one transport environment of e-government of the RK is going to be developed;

Issues:

- *The cost of INTERNET service is very high*
- *The INTERNET speed is slow*
- *There is not a technical support for telephone line installation in the remote rural schools*
- *Schools don't have the aids to purchase the satellite equipment or cover the overland telecommunication line and monthly subscription charge of SCDE*

DEVELOPMENT OF E-LEARNING MATERIALS

- System work is being surveyed by MES of the RK on development of ELM for schools
- 60 % of school education content is transferred to digital format
- The pedagogical technologies on designed of ELM is developed
- The competitive environment that allowed to involve in development of ELM for any education institutions and private companies
- Regional components development of ELM is being surveyed
- ELM are delivered to schools out of charge
- Acquirement of ELM by the republican budget
- It is being planned to create information and education environment in the subject fields of education through integration of digital resource center (DRC) in learning management system (LMS) for every special school subject

Issues:

- *needs in methodical recommendations on using ELM at schools*
- *teachers are not prepared to use and develop ELM*
- *development of ELM without using of pedagogical technologies, without making the creative authors' group including teacher-educators and IT specialists*
- *computers are not correspond to up-to-date multimedia ELM requirements*

TEACHER SUPPORT

Readiness (2005)

- The skills to use computer is poor - 40% of teachers
- The level of skills to use computer is not enough - 20% of teachers

Training

- For the last 5 years more than 11 000 informatics teachers and teacher-educators have been prepared by MES programs (RCIE and RTTI)
- Trainings are being conducted for teachers on international projects («MERITS», Microsoft «Partnership in education» and etc.)
- In accordance with Program on decrease of digital inequality it is provided forming of teachers' computer competence
- Teachers' qualification takes to account level of using ICT in teaching process
- Distance teacher trainings are being developed (SDE «MOODLE»)

Issues:

- *it needs to train the students for pedagogical specialties to use ICT in professional activity*
- *teachers are not able to purchase the computers for independent using because of the high cost of equipment*

RECOMENDATIONS

- To improve normative-legal base of ICT introduction in education on implementation of open distance education; development digital education resources; creation of one information and educational environment
- To search the ways of modernization of out-of-date computers, reduction of the cost
- To advance an experience of equipping all Kazakhstan schools with multimedia rooms
- To provide installation of the conditioner computer rooms during development of technical specification of equipment
- Introduction of additional staff unit "Coordinator on ICT" in schools
- To reduce the tariffs for INTERNET access through telephone and selected lines, for non-limit broadband access; to provide schools with INTERNET access;
- To reinforce motivation system of the authors' group activity on development of ELM
- To develop ELM based on pedagogical technologies taking into account the pedagogical principles, regularities and etc.
- To develop the effective methodologies for using ELM in education
- To revise the future teacher training program in the secondary and higher pedagogical education, introduction of the special courses in higher education institutions and colleges on methodology and technology of informatisation in education
- To increase teacher training and retraining experience through distance training system
- To develop one evaluation system of pupil's competence in the field of ICT
- To develop information system of education management as one of the E-learning components

THANK YOU!