The Impact of COMENIUS Projects on the ICT Competences of Educators

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Lithuania

- Area - 65 300 km
- Population - 3 700 000
- 600 000 students
- 50 000 teachers
- 2500 schools
- Official language - Lithuanian
- Average monthly salary - 274 USD
- Parliament republic
- Budget allocated for education 5.6 % of GDP

Vilnius is a capital city of Lithuania

Nida is located between the Baltic sea and Curonian spit and is famous for its dunes resort city.
Introduction (I)

- Modern educational curriculum is related to the newest ICT.
- It is commonly agreed, that ICT provide positive impact on education.
- Positive impact relies on abilities of the educator to work effectively.

For this reason it is necessary for her/him to develop its competence on use and application of information and communication technologies (hereafter- Educator’s ICT Competency).
More than one hundred Lithuanian schools and more than one thousand Lithuanian teachers have participated during the last few years in Comenius projects in Lithuania.

For this reason it is important to analyze effectiveness of Comenius projects.
Do you think that Comenius project have impact on Educators ICT Competence?
Educators ICT Competence. What is it?
How it could be measured?

What is impact from Comenius project?
<table>
<thead>
<tr>
<th>Author</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson, J., Weert, T. (2002);</td>
<td>Teacher competence</td>
</tr>
<tr>
<td>Alan, B. (2001);</td>
<td>Requirement for teachers</td>
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<tr>
<td>Bakolis, D. (1999);</td>
<td>ICT literacy</td>
</tr>
<tr>
<td>Bitinas, B. (2002);</td>
<td>Information capacity (skills)</td>
</tr>
<tr>
<td>Carr, Jo Ann (1998);</td>
<td>Educators ICT qualification and ICT course (seminar)</td>
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<tr>
<td>Coughlin, E. (1999);</td>
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<tr>
<td>Duobinienė, G., Tautkevičienė G. (1999)</td>
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<tr>
<td>Herring, J. (1998);</td>
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<tr>
<td>Jucevičienė P., (2000, 2002);</td>
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<tr>
<td>Trotter ir Ellison, (1997)</td>
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<td>Markauskaitė, L. (1999, 2000);</td>
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<tr>
<td>Urbanaitė, D. (2000);</td>
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<tr>
<td>Knierzinger, A., Rosvik, S., Schmidt, E. (2002);</td>
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<tr>
<td>Otas, A. (2001);</td>
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<tr>
<td>Petrauskas, R. (1998);</td>
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<td>Resta, P., Semenov A. (2002);</td>
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<td>Schacter, J. (1999, 2001);</td>
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</tbody>
</table>

**Educator's ICT competence and its' evaluation**
<table>
<thead>
<tr>
<th>Level</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>General level of competence</td>
<td>Behaviour level <em>The behaviour competence is necessary for the operational work performance</em></td>
<td>Added level <em>The added competence, based on certain knowledge is necessary for the work improvement</em></td>
<td>Integrated level <em>The integrated competence is necessary for the change of the internal and external work conditions</em></td>
<td>Holistic level <em>The holistic competence is necessary for the new work development and the transfer of qualification to new situations</em></td>
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## Structure of the Educator’s ICT Competency

<table>
<thead>
<tr>
<th>Stage of Implementation of ICT</th>
<th>Introduction</th>
<th>Application</th>
<th>Integration</th>
<th>Transformation</th>
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<tbody>
<tr>
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<td>Diversity of traditional educational processes</td>
<td>Development of teaching and learning possibilities using Internet</td>
<td>Transformation of education components. Process in transformation of educational paradigm</td>
<td></td>
</tr>
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## Educator’s ICT Competence model

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<tbody>
<tr>
<td>Part and characteristic</td>
<td>I level</td>
<td>II level</td>
<td>III level</td>
<td>IV level</td>
</tr>
<tr>
<td><strong>1. ICT basic competency: ICT literacy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1. Technological literacy</td>
<td>+ + + –</td>
<td>+ + + –</td>
<td>+ + + +</td>
<td>+ + + +</td>
</tr>
<tr>
<td>1.2. Information literacy</td>
<td>+ + + –</td>
<td>+ + + –</td>
<td>+ + + +</td>
<td>+ + + +</td>
</tr>
<tr>
<td>1.3. Social literacy</td>
<td>+ + + –</td>
<td>+ + + –</td>
<td>+ + + +</td>
<td>+ + + +</td>
</tr>
<tr>
<td><strong>2. ICT integral educational competence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1. Education competence</td>
<td>+ - - -</td>
<td>+ + + –</td>
<td>+ + + –</td>
<td>+ + + +</td>
</tr>
<tr>
<td>2.2. Pedagogic competence</td>
<td>+ + - - -</td>
<td>+ + + –</td>
<td>+ + + –</td>
<td>+ + + +</td>
</tr>
<tr>
<td>2.3. Management competence</td>
<td>+ - - -</td>
<td>+ + - -</td>
<td>+ + + –</td>
<td>+ + + +</td>
</tr>
</tbody>
</table>
Scheme of Evaluation of Competency

2 PART

↓

6 CHARACTERISTIC

↓

18 CRITERIA

↓

1 2 3 4 LEVEL

72 IDICATOR

(each level are describe)
Process of evaluation of competence

Fact of personal activity
Process of evaluation of competence

Barton ir Coolins (1997) for type of information:
Product: multimedia work, document, diary and etc.
Re-production: documentation of actions and etc..
Confirmation and write-up: from colleagues, reporter, inspection and etc.
Presentation or case analysis

Direct evidence: project report, message, video, data, meeting video material and etc.
Non direct evidence: confirmation, protocol of meeting and etc.
Process of evaluation of competence

Fact of personal activity → Evidence → Competence portfolio

_Barton ir Coolins (1997) for type of information:_
- **Product:** multimedia work, document, diary and etc.
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_Jucevičienė P. (2002)_
- **Direct evidence:** project report, message, video, data, meeting video material and etc.
- **Non direct evidence:** confirmation, protocol of meeting and etc.
Process of evaluation of competence

Fact of personal activity → Evidence → Competence portfolio → Evaluation

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- **Direct evidence:** project report, message, video, data, meeting video material and etc.
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### Grid of competence

<table>
<thead>
<tr>
<th>characteristic, criteria</th>
<th>I level</th>
<th>II level</th>
<th>III level</th>
<th>IV level</th>
<th>Evidence</th>
</tr>
</thead>
</table>
| **1.1. Characteristic. Ability of manipulate ICT and ability of use ICT**  
*(technology literacy)* |         |          |           |          |          |
| 1.1.2. Teacher is capable of preparing material for teaching and learning with application software (text, graphic, sound redactors, spreadsheet, data base, powerpoint, software for preparing Internet pages, programming lang.) | | | | | + |

**...**
## Competence portfolio

### Grid of competence

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<thead>
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<th>I level</th>
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<td></td>
<td></td>
<td>+</td>
<td></td>
<td>2,3</td>
</tr>
<tr>
<td>.....</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,2</td>
</tr>
</tbody>
</table>

### List of facts and evidences

1. Powerpoint presentation for IPM tools seminar
3. Internet site [www.limk.lt](http://www.limk.lt)
## Competence portfolio

### Grid of competence

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3. Internet site [www.limk.lt](http://www.limk.lt)
Evaluation of Educators ICT competence

• Method - Self-reflection.
• Result - Competence portfolio
Research. Size of group

- Active groups. Competence of all member of group
- Try to find the best examples.
Research. Size of group

- Active groups. Competence of all member of group
- Try to find the best examples.

**Active Comenius project participate**
- **EMISTE** study group in University of Kaunas. Selection of group criteria: participate in international project. 15 members - 13 Comenius project member.
- **IPM tools** group Comenius 2 project participates. 10 members

**Not active Comenius project participate**
- **Study group** of Comenius2 project (just on start position). 11 members
- **Consultant group.** Selection criteria of group recommendation from schools, publication. Some of them are working in Comenius project. 28 member
Active groups. Competence of all member of group
Try to find the best examples.

Active Comenius project participate
- **EMISTE** study group in University of Kaunas. Selection of group criteria: participate in international project. 15 members - 13 Comenius project member.
- **IPM tools** group Comenius 2 project participates. 10 members

Not active Comenius project participate
- **Study group** (are planning to take part in Comenius 2 project). 11 members
- **Consultant group.** Selection criteria of group recommendation from schools, publication. Some of them are working in Comenius project. 28 members

Female - 78 %
Self evaluation

<table>
<thead>
<tr>
<th>Group (Comenius)</th>
<th>Group (not Comenius)</th>
<th>Corelation</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPM tool</td>
<td>Study group</td>
<td>0.47</td>
</tr>
<tr>
<td>Consultant</td>
<td>Consultant</td>
<td>-0.17</td>
</tr>
</tbody>
</table>

Corelation between Comenius IPM tools and Study groups shows Comenius project impact.

Not a high corelation between consultants who are and are not working shows the same competence in higer of Competence level.
# Comparison of facts

## Facts of Comenius project
1. PowerPoint presentation about Com. project
2. Article with photo for www magazine
3. E-newspaper
4. Comenius product data base
5. Letter for project partner
6. Plan of Comenius project activities
7. Report about Comenius project

## Facts of Non Comenius project
1. Presentation about school, for seminar, lesson
2. Article
3. Tasks for students, Text about CD and software
4. Data base for students evaluation
5. Tasks for students about email
6. Individual program, the syllabus of subject
7. Competence portfolio, documentation in e.form

Facts show relation between Comenius project works and ICT competence from standpoint of Comenius teachers.
Comparison of facts

**Facts of Comenius project**
1. PowerPoint presentation about Com. project
2. Article with photo for www magazine
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5. Letter for project partner
6. Plan of Comenius project activities
7. Report about Comenius project
8. Comenius projekto medžiaga
9. Comenius projekto organizavimas,
10. Comenius projekto paraiška
11. Dalyvavimas Comenius projekte, įtraukiant mokinius
12. Inicijavimas dalyvauti tarptautiniuose projektose
13. Užiėmimų kompiuterių klasėje organizavimas
14. Parengta metodinė medžiaga
15. Pasirašytos autorinės sutartys vykdyti Comenius projektą
16. Comenius projekto svetainės administravimas
17. Darbas su CD

**Facts of Non Comenius project**
1. Presentation about school, for seminar, lesson
2. Article
3. Tasks for students, Text about CD and softaware
4. Data base for students evaluation
5. Tasks for students about email
6. Individual program, the syllabus of subject
7. Competence portfolio, documentation in e.form
8. Distancinio kurso medžiaga, saugaus darbo instrukcijos
9. IT diegimas mokykloje (planas, darbų koordinavimas)
10. Nuotolinio mokymo kursai mokytojams, FTP serverio veiklos organizavimas
11. Dalyvavimas tarptautiniame tyrome, parodų, pažintinė ekskursija
12. IKT diegimui skirti dokumentai (šalies, mokyklos)
13. Videokonferencija, pamokos, paskaitos diskusijos apie el. paštą, FTP, IRC., IKT moksleiviams ir mokytojams
14. Metodinė medžiaga Literatūros sąrašas
15. Informacinių technologijų vadovėlis ar jo skyrius
16. Interneto puslapis (asmeninis, mokyklos) Mokyklos tinklas
17. Mokomųjų programų naudojimas

Facts show relation betwen Comenius project works and ICT competence from standpoint of Comenius teachers.
Evaluation of characteristic and indicator in all group is approximate same

**CHARACTERISTIC**

**better:** technological literacy  
**bellow:** Social literacy, pedagogical and management competencies

**INDICATOR**

**better:**  
- Teacher is capable of using Internet services  
- Teacher understands impact of ICT on culture and tries to apply and reduce it  
- Teacher is capable of planning ICT using in his/her activities

**bellow:**  
- Teacher is capable of preparing material for teaching and learning with application software (text, graphic, sound redactors, spreadsheet, data base, PowerPoint, software for preparing Internet pages, programming lang.)  
- Teacher knows private law of information, copyright and follow in that  
- Teacher knows requirements of hygiene in application of ICT
Issues and recommendation

• The findings has proved the positive impact of Comenius projects on Educator’s ICT competence.

• In their activities the educators indicate lower estimations of their social, pedagogic and management competence and better - their technologic competence.

• Suggested for the Ministry of Education and Science of Lithuania and for schools to encourage their educators to more actively participate in Comenius projects, to apply Educator’s ICT Competence assessment and evaluation portfolios.
Do you think that Comenius project have impact on Educators ICT Competence?

YES, IT HAVE
Tarvydienė L. Education for Citizenship at the Secondary School Through International Project "Forumeduca. The European Citizens in the New Millennium".

• Results of the study enable to enhance education for citizenship and implementation of other European dimensions through realisation of international educational projects.

Voskienė R. Development of Pupils’ Communicative Competence Through Socrates Language project

• The biggest differences before and after the Socrates projects are in students’ social and sociocultural competences, and the smallest difference is in their discourse and sociolinguistic competences;
• Students from Socrates Comenius language project group have better communicative competence than other students. The biggest difference between the competences of the respondents is in their strategic and sociolinguistic competences;

• Students and teachers, working in an international team, teach each other. Teaching comes through collaboration, social skills formation and deepening.

Rupainienė V. Features of Educational Innovations Implemented During the European School Partnership Project (the Case of Comenius Project ‘Children‘s Games and Toys’)

• During the implementation of international school partnership projects, educational innovations (new ideas, practices and processes; something that is newly implemented) emerge at the school level. They can also give birth to educational innovations at a level of didactic, pedagogical or educational system.
Relying on the results of the research, Visaginas Polytechnic School has reached only the commencement of the first stage of ICT implementation before this international project was started and achieved the third stage conditions at the end of the project.