Lifelong Learning Networks of Teachers for the Development of Competence in Teaching in Small Rural Schools

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Our focus

Competence Development & Life Long Learning Networks for teachers working in small rural schools in Greece

Competence Development
- Fostering the improvement of personal competences in rural teachers
  - continuous professional development through in-service training

Life Long Learning Networks
- Fostering the development of a learning network of rural teachers:
  - acquisition and sharing of knowledge in an informal communication process
  - informal learning lying beyond and supplementing teachers' formal professional education
Multigrade schools: The ‘borderers’ of the education system

- Providing the children of remote and less accessible areas with the access to education which all children of Greece are entitled to.

Multigrade school teachers and competence development: the need

- Teachers confronted with significant challenges
- Not sufficient initial professional training
- Typically, inexperienced newly-appointed teachers are posted to remote schools for a short term service

Hence a need to:
- acquire new knowledge and skills
- improve expertise in multigrade teaching
- develop personal competences falling beyond the established initial and in-service teacher training curricula
Multigrade school teachers and competence development: the problem

- Not easy to offer conventional professional development provision (in-service training seminars):
  - distance, costs, lack of substitute teachers
- Suffering the consequences of a widening socioeconomic and digital divide (rural vs urban)

Multigrade teaching competence: A problematic concept

- “Competence: a standardized requirement…” (HR definitions)
- No official, standardised answer to the question:
  - Is a teacher adequately qualified so as to have the ability to perform successfully in the multigrade classroom?
- No clear definition of good multigrade teaching (cf. initial teacher training)
- Teachers are left alone to explore and learn multigrade teaching on their own.
Addressing the problem: the use of ICT

- A typical response to the obstacles:
  - use of different forms of technology-supported learning and distance education models

- Our response to the challenges:
  - Efforts to alleviate the isolation of teachers working in remote schools through the provision of distance training, support and networking, using to the full the possibilities offered by new technologies.

Our main questions

- What is the appropriate content for the professional development and support activities?

- How appropriate are the various available and emerging delivery technologies?

- What are some possible extensions to conventional e-learning technologies and practices, which could help teachers learn as individuals and to learn from each other, participating in informal learning experiences within a sustainable lifelong learning network?
Our course in the past six years

- Teachers' competence development through training content delivered over the web (MUSE project)
- Testing more advanced technologies for broadband delivery over satellite, while continuing to further develop the content (ZEUS and RURAL WINGS projects)
- Development of a network (NEMED) and an increased interest in concepts and tools related to lifelong learning networks (NEMED, RURAL WINGS)
The training programmes

- Professional development schemes along two main axes:
  - Use of ICT in their work, both for teaching/learning and administrative purposes.
  - Application of teaching and learning approaches which are most appropriate for the multigrade classroom.

The e-learning technologies

- E-learning environments:
  - satellite telecommunications for broadband delivery of rich educational content
  - synchronous (videoconferencing, application sharing, chatting)
  - asynchronous (web-based learning through structured access to a rich pool of educational content, and networking)
MUtrgrade School Education

Training Programme
- Training curriculum
- Methodologies and approaches for multigrade teaching
- The teacher and the role of the multigrade teacher
- Organising the curriculum
- Teaching and learning strategies
- Classrooms organisation
- The potential of ICT in multigrade teaching
- Adaptation of teaching material
- Guidelines for effective multigrade teaching
- Introduction to the use of ICT
- Cross-curricular applications and projects

Multigrade School Education

Training Programme
- Training curriculum
- Methodologies and approaches for multigrade teaching
- Introduction to the use of ICT
- Hardware
- Software
- Basic text processing
- Internet
- Email
- Bulletin boards
- Multimedia
- Introduction to Internet
- National Centre of Virtual Environment (CENTRO)
- Presentation Software
- Spreadsheet and spreadsheet
- Creating a web page
- Cross-curricular applications and projects
A model for training delivery

<table>
<thead>
<tr>
<th>Preparation phase</th>
<th>Live lesson</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>asynchronous learning (20% - 30% of overall time)</td>
<td>synchronous learning (30% of overall time)</td>
<td>asynchronous learning (40% - 50% of overall time)</td>
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</tbody>
</table>

**Live lesson Day**

- **Initial stimulus**: Assignment of preparatory tasks
- **Reminder**: Reminder about the live lesson planned for the day
- **Implementation of live lesson**: Presentation, discussion, assignment of learning-comboration tasks (e.g., concerning the trial of an innovation in the trainee's classrooms)
- **Review of live lesson**: Review of the live lesson, its conclusions, assigned learning-comboration tasks and relevant deadlines
- **Reminder**: Reminder about the assigned tasks one day before the assignment deadline
- **Closure**: Review of results and experiences, drafting and circulation of outcomes and conclusions
The networking technology

The NEMED web portal:

- meant as a lively virtual space of structured exchange between network partners, participating teachers and schools, as well as any other users interested in multigrade education
A repository of teaching and learning resources connected to multigrade education, jointly created and updated by the teachers – network members

<table>
<thead>
<tr>
<th>Communication area</th>
<th>Research</th>
<th>Educational resources</th>
<th>Training materials</th>
<th>Reports</th>
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**ICT for multigrade schools**

In this working group area, digitalized content on various multimedia resources, educational practices, and learning methodologies for multigrade schools is made available. The NEMED website is the central working group for the specific theme framework, while there is also a dedicated place to share documents and exchanges within the group.
Challenges / outstanding questions

We want to understand and enable our vision of lifelong learning of rural teachers further, by effectively combining competence development and lifelong learning network concepts and principles more effectively.

We are investigating tools and methodologies which can:
- foster the improvement of personal competences in rural teachers, and
- encourage and facilitate a teacher’s contributions to the development of the other teachers.

Outstanding questions

Revisiting the training delivery model mentioned above at the micro level:
- aiming to incorporate methods and tools facilitating informal learning through peer interaction.
Outstanding questions re. technology

- What do the technologies have to afford in order to promote and facilitate competence development through networking with peers?

- Which technologies are able to support rural teachers, both as individuals and as members of teams within the educational system (an ‘organisation’ in itself), to further develop their competences making use of the distributed knowledge and learning resources available?

The NEMED portal is our current attempt in this direction:
- So far, a repository of teaching and learning resources connected to multigrade education, jointly created and update by the teacher-members.
- How can this be done more effectively? What else?

RURAL WINGS:
- An opportunity to organise the numerous learning resources and diverse learners in rural communities worldwide into meaningful, working networks fostering lifelong learning and competence development, within its own learning-enabling portal.
The notion of communities of practice

A powerful conceptual tool

- We are aiming to enable the development of a community of practice of rural teachers

Why a community of practice?

- A CP: people who share a concern or a passion for something they do and learn how to do it better as they interact regularly

- A shared domain of interest: the development of multigrade teaching competences

- We need to establish and sustain members’ commitment to the domain

- We need to facilitate community development by assisting teachers to:
  - engage in joint activities and discussions
  - help each other
  - share information and learn from each other, while pursuing their interest in their domain.
A community of practice rather than a mere community of interest

- Rural teaching practitioners developing a shared repertoire of resources – a shared practice:
  - Experiences
  - Stories
  - Tools
  - Ways of addressing recurring problems in their small rural school, etc.

Questions - problems

- This takes time
- It requires sustained interaction

- How specifically can technology support and facilitate a variety of activities through which communities develop their practice:
  - problem solving
  - requests for information
  - experience seeking
  - reusing of assets
  - coordination and synergy
  - discussion of developments
  - mapping of knowledge and identification of gaps, etc.
How can this be designed and realised given current technological developments?

- An open challenge