



External Evaluation of SEED Final Report September 2005

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Front Cover

Photo: Szeged School Visit, Frascati workshop material and workshop participants. Cover designed by Scott Henderson

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Abbreviations

AR	Action Research
CERI	Centre for Educational Research and Innovation (Europe)
DESD	UN Decade in Education for Sustainable Development
DVO	Department for Educational Development (Flemish Government)
EE	Environmental Education
EFS	Education for Sustainability
ENSI	Environment and Schools Initiative (Europe)
ESD	Education for Sustainable Development
ICT	Information Communication Transfer
INVALSI	National Institute for the Evaluation of the Educational System (Italy)
KIG	Key Informant Group
NGO	Non-governmental Organisation
OECD	Organisation for Economic Co-operation and Development
OKI	National Institute for Education, Hungary
PoE	Portfolio of Evidence
QC	Quality Criteria
SD	Sustainable Development
SEED	School Development through Environmental Education

Executive summary

The 3-year **School Development through Environmental Education** (SEED) program brings together a network of partners from schools, teacher education institutions, educational research institutions and government agencies. SEED provides a platform for closer dialogue and shared understanding of Environmental Education as a tool for school development between these stakeholders from 20 partner and member countries. Students being the ultimate recipients of innovation in teaching and learning methodologies.

The SEED program has been underpinned by a number of the aims and objectives outlined by the Comenius III grants (see Figure 1 on page 3). The purpose of the external evaluation is to identify **products**, **performance** and **impact** of the SEED network based on these objectives.

In order to address these areas the external evaluation has followed a specific line of inquiry which was based on the *External Evaluation Framework* (see *Portfolio of Evidence, section B*). This was developed by the External Evaluators in consultation with the SEED Steering Committee and a Key Informant Group. Part 2 of this Evaluation Report includes a *Portfolio of Evidence* to support the evaluation findings made in the report.

Overall the SEED program has been effective in reaching the COMENIUS III – SEED aims and objectives. Specifically there are a number of themes that can be drawn from this data which demonstrate the participant's experiences in relation to the following three areas:

Providing an interactive platform for exchange and co-operation between the COMENIUS projects

- SEED activities have provided many opportunities for participants to *reflect on current practice and share ideas* with others;
- SEED activities have provided an interactive platform which allowed *partnerships* to be established or consolidated;
- SEED activities have provided the platform for participants to explore a *range of tools* for *school development* – such as Action Research and critical friends.

Disseminating the information/cases of good practice within the network

- SEED activities have provided regular opportunities to *showcase* examples of *good practice* in the presentations, workshops, discussion forums and site visits.
- Key themes – activities regarding Action Research, Quality Criteria, Education for Sustainable Development, UN Decade in Education for Sustainable Development have been *shared and new knowledge gained*.
- Information and case studies of good practice have also been *disseminated to a wider SEED audience*.
- In the latter years of the program the ICT has been used more widely by participants to share information. Overall it has been *underutilised* in terms of a means of disseminating good practice due to limitations of use by participants (e.g. knowledge of how to upload information and/or finding time to do so).
- One area for improvement identified is in providing more opportunities to be practical with theory. Participants have commented that *few practical examples* were provided of how to bridge the gaps between theory and practice during the COMENIUS meetings.

Network learning and development.

- The internal evaluation, has allowed for greater coordination between SEED activities and for network learning. The *lessons learnt from each event have been incorporated into each subsequent activity*. The issues raised from this process will be a valuable resource for the development of future networks. This process was undertaken very effectively.
- A number of difficulties were encountered in the early stages of organising and managing the SEED events. This was mainly related to *the technical components of the COMENIUS grants* associated with SEED and was later resolved after much negotiation.

Product, Performance and Impact of SEED

Overall all the SEED products have been delivered professionally, in a timely manner and have been made available to all network members and partners. The content of SEED products have reflected good practice in Education for Sustainable Development, Action Research and Quality Criteria. SEED products have focused specifically on how these themes relate to school development.

The success of the performance of SEED products and the network can be measured by the impact they have had on COMENIUS school development projects in promoting educational change and improvement. SEED members have developed projects which have extended the reach of SEED beyond their schools to local governments, associations, businesses and local communities. SEED has been effective in increasing international communication between and within Comenius projects with evidence of sharing knowledge and experiences. Through the participation in SEED members have begun to have impacts upon policy relating to school development and school curricula development. A key outcome of the program has been the development of partnerships to increase the impact of school development. During the program existing partnerships have been strengthened, new partnerships have been developed or are planned for the future.

Recommendations:

As a result of the external evaluation of the SEED program the following recommendations can be made. There is a need to:

1. Create further opportunities for countries to explore the value of Environmental Education in whole-school development. The focus of future programs/networks should go beyond curricula development.
2. Use the comprehensive work completed by SEED on *Quality Criteria in ESD-Schools* and *Action Research* as the basis for further extension work.
3. Streamline or provide greater clarification in the administration of COMENIUS grants to enhance the accessibility and increase the participation levels of any future programs/networks.
4. Extend the evaluation of SEED to include a review of impacts in four years time. This will enable funding bodies to gauge the impact of activities which are not immediate such as changes in curriculum.
5. Continue to support financially and administratively cross-European networks in the area of EE as they have proven to be a valuable force for innovation in schools. These networks should learn from the experience of SEED particularly relating to:
 - *the use of Information and Communication Technology, such as websites;*
 - *the provision of a system of continuing support; and,*
 - *how to conduct an internal evaluation process.*

Introduction

School Development through Environmental Education (SEED) is a COMENIUS III network of educational authorities and institutes which aim to promote Environmental Education (EE) as a driving force for school development. SEED brings together schools, government agencies, teacher education and research institutes from 14 partner countries and 6 member countries (see box) to work together, share and learn from each others experiences in working towards sustainable development.

What is the purpose and focus of the evaluation?

The purpose of the external evaluation is to identify products, performance and impact of the network based on aims and objectives of COMENIUS III-SEED. Through a participatory evaluation approach the external evaluators have sought to capture this information by formulating a series of questions in collaboration with the Key Informant Group (KIG) and the SEED Steering Committee which take the form of an *Evaluation Framework* (see *Portfolio of Evidence* section B).

The evaluation reviewed the success and effectiveness of the SEED network, particularly in relation to

- i) providing an interactive platform for exchange and co-operation between the COMENIUS projects
- ii) disseminating and promoting the information/cases of good practice within the network and
- iii) providing key recommendations for future network development.

The evaluation has monitored closely the work of the SEED Network and its Steering Committee during 2003-2005, by attending committee meetings, conferences and workshops as well as reviewing all project documentation and communication (see *Portfolio of Evidence*). The evaluation has also selected examples and case studies of evidence to support the evaluation findings and these have been presented in the *Portfolio of Evidence*.

SEED Partner Countries:

- Austria
- Belgium
- Denmark
- Finland
- Germany
- Greece
- Hungary
- Italy
- Luxembourg
- Netherland
- Norway
- Spain
- Sweden
- United Kingdom

SEED Member Countries:

- Australia
- Canada
- Japan
- New Zealand
- Republic of Korea
- Switzerland

Portfolio of Evidence (PoE)

The Portfolio of Evidence is located at the end of this report from page 27 onwards.

A complete list of the data sources used for the external evaluation is located in section A of the Portfolio of Evidence.

Figure 1: The Aims and Objectives of the COMENIUS III Grants

- Establish an interactive platform for exchange and co-operation between COMENIUS projects, ECO-schools initiatives and the various environmental networks in Europe and beyond
- Identify good practice within COMENIUS projects and disseminate these to a wider educational audience.
- Promote active networking among different participants at the various levels within schools systems: schools, teacher education, pedagogical research and school authorities.
- Encourage the active transfer of practical experience using ICT-based knowledge management systems.
- Establish European criteria for ECO-schools alongside a methodology for their implementation and self-review
- Promote dynamic European models of schools development. This will involve partnerships between schools, teacher education and research establishments as an ongoing learning process.
- Contribute to the development of new COMENIUS projects in the field of school development through environmental education, by building on evidence of identified good practice
- Evaluate the impact of the above mentioned COMENIUS school development projects on promoting educational change and improvement
- Deliver recommendations for future pathways in the field of environmental education and school development to the respective educational authorities.

Overview of Evaluation Process

Key Informant Group:

Key informants included representatives of all those involved in SEED work including SEED Management, national agencies, school authorities, researchers, teacher trainers, head teachers, teachers and student teachers. In total there were 22 key informants from 11 countries.

Key Informant Session Summary:

Workshop (Szeged, Hungary - 15 KIG)
This workshop focused on developing the Evaluation Framework to identify the key questions that all members wanted the External Evaluation to answer.

Focus Group (Frascati, Rome - 12 KIG)
Discussions with the KIG sought to identify the performance of SEED to-date and start to identify any impacts and changes occurring in practice.

E-Group Discussion (Leading up and following Kassel – 8 KIG)
The Group were asked to consider how their learning and professional needs were being met by SEED conferences.

Survey (Esbjerg, Denmark - 9 KIG)
A survey was sent out to KIG members which focused on the changes and developments that had occurred due to participation in SEED along with their experiences of the network and participation.

See *Portfolio of Evidence* for further details of the data collected from these sessions.

Evaluation Framework Questions:

In both a KIG workshop and SEED Steering Committee session at Szeged, participants were asked to discuss the questions/areas of consideration which they would like to be addressed in the final external evaluation report.

How was the external evaluation conducted?

SEED Steering Committee and Key Informant Group

The *SEED Steering Committee* was comprised of those members involved in the overall coordination of the SEED program along with those responsible for the development and delivery of specific SEED events and workshops. Members of a *Key Informant Group* were selected for each SEED activity, it aimed to be representative of a wide range of countries and include participants from all stakeholder groups involved in the SEED network.

The *SEED Steering Committee* and *Key Informant Group* (see PoE section C for a list of participants) played a very important role in assisting the external evaluators to ensure the evaluation was representative, valid and relevant as well as providing data relating to the development of the *Evaluation Framework*. They also played a role in ensuring that all important evaluation points were addressed, valid and communicated in a valuable form.

What is the *Evaluation Framework*?

The *Evaluation Framework* identified the specific line of inquiry to be followed by this evaluation through a series of questions relating to SEED products, performance and impacts. The framework was developed to guide the data sourced from SEED activities to ensure that all data points have been scoped. The framework has also provided the structure of this report (see PoE section B).

How was the *Evaluation Framework* developed?

This framework was developed in consultation with the *SEED Steering Committee* and *Key Informant Group* through a participatory and collaborative process. These sessions were conducted in Szeged, Hungary (September 2003) and were followed up for validation by online correspondence.

What evidence is the evaluation looking for?

Key Data sources for external evaluation

Data sources are selected to seek evidence regarding product, performance and impact of the SEED network.

These sources include:

- Website ICT (content, management and communication);
- SEED internal evaluation documents and reflections as well as participant evaluations from workshops and seminars;
- Project documentation and communication between partners;
- SEED Steering Committee meetings (e.g. meeting minutes);
- Key note presentation, seminar slides and notes from SEED events;
- COMENIUS II or I workshop reports;
- SEED workshop reports and annual reports;
- Key Informant Group (KIG) events – workshop (Hungary), focus group (Italy) e-group discussions (pre and post Kassel) and Survey (Denmark).
- Publication: Quality Criteria for ESD-Schools.

For a more detailed list of these data sources refer to PoE, section A.

How did we ensure the findings are valid?

A number of tools have been utilised to assure validity – i.e. reliability and representation of the evaluation findings. These have included a range of techniques such as: key informant validity; construct validity and triangulation (see box).

Observations during SEED activities and analysis of SEED correspondence and documents have been validated through interviews, focus groups, workshops with SEED participants. This *Final Evaluation Report* has also undergone a process of review by the KIG and SEED Steering Committee to validate the findings.

Communication with the internal evaluators has been one of the key components of the external evaluation. The SEED Internal Evaluation sub-committee has produced reflections and discussions relating to all SEED events as well as collecting evaluation data from all SEED participants throughout the SEED program. This has been an important component for program learning and development.

Validity tools:

Key informant validity: ensuring that the experiences of stakeholders across the program are captured in this report.

Construct validity: exists when the experiences of the people involved in the research validate or extend the theory.

Triangulation: two or more methods and/or sources of data collection to establish findings and overcome bias.

Findings

A number of key findings have been identified in response to the questions posed in the *Evaluation Framework* and have been presented in the categories of **product**, **performance** and **impact**.

Under each of these categories there are a number of themes which have been addressed by individual evaluation questions, which can be found in the blue shaded text boxes in the page margins. Evidence collected to support the external evaluation findings is presented in the clear text boxes in the page margins along with the *Portfolio of Evidence* which provides more detailed evidence.

Shaded text boxes feature the questions under each theme which have been outlined in the Evaluation Framework.

Clear text boxes feature evidence of key findings and take the form of quotes, interview and focus group responses and program evidence.

Product

SEED products

A variety of 'products' were defined in the original funding proposal as specific outputs of the SEED program. These included transnational comparative studies, workshop and conference reports, annual reports and publications. A summary of the status of each of these SEED products is presented below.

Publications: There were three publications which were outlined in the funding proposal:

- *Quality Criteria for ESD-Schools: Guidelines to enhance the quality of Education for Sustainable Development.* This publication has been released and presents a starting point for reflections, debates and future work on ESD among educational officials, teachers, headmasters, parents and students. The document is supported by a 'Quality Criteria set' which can be downloaded from www.seed-eu.net. The document is currently available in Danish, English and German. It has also been translated into Catalan, French, Hungarian, Italian and Spanish and these will be available by the end of September 2005. Due to the interest generated by this document in the member countries it is also being translated into an additional 5 languages (Flemish, Finnish, Greek, Slovenian and Korean). Each member will receive approximately 50 copies in English along with 200 copies in the chosen language. They will also be provided with the PDF file for further printing and dissemination. The ENSI secretariat is responsible

Product Evaluation Questions:

Q. Who is receiving copies of these documents?

Q. How are these recipients identified?

Q. Have all SEED products been developed and within the proposed project timeline?

KIG Comments on Quality Criteria Product

KIG Member: 'In Hungary the publication '*Quality Criteria for ESD-Schools*' has been very useful in a number of areas:

- The award system of Eco-schools in Hungary will be improved on the basis of this publication.
- There will be a OECD-seminar on formative assesment in Budapest, and the organizers will distribute this publication as an example of formative institutional assessment.
- The publication unit of OKI have decided to publish the text in the *New Pedagogical Review* which is one of the major pedagogical journal in Hungary.'

Product Evaluation Questions:

KIG, Frascati is aware that these SEED products are being developed:

'When they send me information by e-mail about the seminars'

More specifically, with regards to the Quality Criteria for ESD-Schools Product:

Q. Who is receiving copies of these documents?

By the end of September 2005 this publication will be available in 8 different languages (English, German, Spanish, Danish, Italian, French, Catalan and Hungarian). Each member will receive approximately 50 copies in English along with 200 copies in the chosen language. They will also be provided with the PDF file for further printing and dissemination.

Q. How are these recipients identified?

All members of SEED will receive copies of the publications which will also be available for further distribution at their request (eg. at conferences). The ENSI secretariat is responsible for the dissemination and marketing of the Quality Criteria Publications and they plan to monitor this process and the use of the product during 2005-2006.

for the dissemination and marketing of the Quality Criteria Publications and they plan to monitor this process during 2005-2006.

- SEED has also published the more detailed *ECO-schools: trends and divergences. A comparative study on eco-schools development processes in 13 countries*. The authors of the comparative study are Finn Mogensen (Denmark) and Michela Mayer (Italy). This publication collects all the national reports provided by the participating countries and is introduced by the comparative report.
- The *Action Research Tool Box for teachers* will be available on the SEED website from October.
- At this stage a draft document has been prepared for the comparative study on teacher education titled: *"Approaching Reflective Practice in Teacher Education"*.

Workshop and conference Reports: SEED has produced and disseminated workshop and conference reports directly after each SEED event (see PoE section A). These have been produced in electronic (pdf file format) and hard-copy format. There is evidence to suggest that all the participants from these events have received a copy of these documents via email. In addition to this, the SEED Steering Committee has received a copy of these documents regardless of whether they have attended the event or not.

Annual reports: SEED has developed annual reports which have been circulated to relevant members. These reports are also available for viewing through the intranet site.

Summary of Products

SEED has developed and distributed in a timely manner documentation in relation to the required workshops, conference reports and annual reports. These have been distributed to the relevant participants via email and some are also available via the ICT to network partners and members. Of the three publications outlined in the funding proposal only one (Quality Criteria for ESD-Schools) has been developed, printed and distributed to key stakeholders. The other two publications are due for publication in October.

ICT Evaluation Questions:

Q. Who has access to ICT?

Q. Who is using the ICT?

Q. What is the ICT being used for?

Q. What information is featured?

Q. Does the information presented (or how it is presented) on the ICT include or exclude members?

Q. Who is using ICT?:

KIG member: *'I visited once after the Reichenau meeting but I wasn't been able work in it. Now with the information gave in Frascati I'm going to start again using it. We could find ideas about how to join students, parents and, of course, teachers in this way of education. May be a place in the web side where we could find ways to educate about: save resources, waste, health...'*

KIG member: *'I do not use the website, but I am aware of it. But I often use the Norwegian "Comeniusnytt". There I find links to many programs'*

Information Communication Transfer (ICT)

SEED offers virtual communication for all project partners via the ICT. Close monitoring of the ICT has been an important component of the evaluation.

The external evaluators have noted a significant shift in the promotion, use-ability and usage of this resource from 2002/2003 to the present day. The ICT was under-utilised as a tool for SEED partner exchanges during 2003. Since then the information presented on the ICT has increased and now ranges from SEED news, projects to services. The news section, in particular, is regularly updated and displays information and pictures relating to past or future events and meetings.

It is evident that over time SEED increasingly utilized the email networks and Comenius workshops to promote and train SEED members to be able to navigate and participate in this electronic forum. The main site has been active with news postings and updates since the end of 2003. SEED participants from Frascati were encouraged (via an ICT workshop) to

upload information on their school projects for wider dissemination purposes. Although it should be noted that only a few groups have entered their details on the school partnerships website.

The reflections in the Key Informants sessions and during SEED workshops (such as Frascati, Italy) indicate that the ICT is a useful medium for members to access and interact with. It is generally perceived as being inclusive to all members and sub-communities. Although perceived by participants as a useful tool, their lack of knowledge of how to use the intranet site and the time required to enter in (or access) information has proved to be a limiting factor in its widespread use.

All SEED partners and member countries have access to the ICT network. There are also sections of the intranet restricted to particular sub-communities. For example specific project partners have access to sub-communities such as 'Quality Criteria', 'Internal Evaluation', 'School Partnerships'. These sub-communities are virtual group rooms which support the flow of information and communication within working groups. This tool has supported group exchanges throughout the project in a situation where members are spread across Europe (see PoE section C). The evaluators have noted however that not all these sub-communities have been regularly active.

The ICT allowed groups such as the Quality Criteria to join a sub-community open in the SEED intranet, in order to have all reports and comments readable by the participants. This transparency allows for consistency and information sharing between the countries. While the publication was being prepared, all SEED members were able to access the data if required and if permission was obtained.

Summary of ICT

All SEED partners and member countries have had access to the ICT network. The majority of the information presented has also been accessible to the wider public. The ICT provides a source of virtual communication. It is used to present current SEED news, events and products. It also has a section which provides restricted access area for sub-communities such as 'quality criteria' or 'school partnerships'. These sections have been used to exchange information during projects. The use of the site, in particular the restricted access section, has been limited due to participants lack of skills, knowledge and available time to learn to use it properly. Although this situation did improve marginally after training was provided in SEED workshops.

Reflecting Good Practice

SEED has provided regular opportunities to showcase examples of what results have been achieved in schools through the various presentations, workshops and discussion forums at the conferences, thematic workshops and seminars. Each SEED event has included site visits to schools and institutions to demonstrate various forms of EE in practice related to the event theme. These visits have proved popular and successful in allowing participants to understand how EE, Action Research and whole-school development works in practice. This has been combined with discussions, questioning and reflections with fellow participants, school teachers and principals. The initial response was that some events were too theoretical and participants preferred greater opportunities to explore the theory in practice.

Good Practice evaluation questions:

Q. Does SEED offer examples of what works in schools?

Q. Do SEED products identify good practice within COMENIUS projects and disseminate a wider educational audience?

KIG reflections on Frascati workshop content:

KIG member: 'I think we found it more theoretical than practical. We discussed that this morning, we say it was very nice to do this work, but not enough examples of how it works'.

Good Practice: Stories of good practice discussed at Frascati, Italy:

KIG Member: 'That is the part that you remember. You remember more when you tell something about what you have actually done...Success and non-success stories- Not just success stories.'

Good Practice: Szeged.

Szeged, Hungary offered a chance for schools and academic institutions to showcase their work in a number of discussion forums and this was provided back to participants in written form. This involved Action Research in EE workshops relating as well as a number of case studies disseminated by Peter Posch's article. (See also PoE)

These events are well captured in the corresponding SEED reports (refer box) and disseminated to a wider SEED audience. This ensures that SEED members who were unable to participate at these events receive a copy of each report in order to learn and benefit from the exchange, information and outcomes.

Summary of Reflecting Good Practice

SEED has provided numerous examples, in a variety of forms of what works in schools. Good practice has been identified within COMENIUS projects through seminars, workshops and site visits. This information has been available to SEED partners and members.

Key Themes

SEED partners are able to benefit from the EE developments in COMENIUS projects through sharing of dialogue and research via the SEED networks/events. This exchange has been specifically focused on the themes of Education for Sustainable Development (ESD), Action Research, dynamic qualities, quality criteria and school development. This network has also seen a number of international experts in these fields present and participate in SEED events such as Paul Hart (University of Regina, Canada), Dr. Mariona Espinet (Faculty of Educational Sciences, Universitat Autònoma de Barcelona), Dr. Michela Mayer (INVALSI, Italy), Dr. Rosa Maria Pujol (Faculty of Educational Sciences, Universitat Autònoma de Barcelona), Dr. Franz Rauch (Center for Interdisciplinary Research and Education, University of Klagenfurt), Ian Robottom (School of Scientific and Developmental Studies in Education, Deakin University, Australia), and Martin Scheuch (Austrian Forum for Environmental Education). Table 1 on the following page indicates the concepts related to each key theme and the ways in which they have been reflected by SEED products. Refer also to the relevant sections of the Portfolio of Evidence for specific details.

Key themes of SEED evaluation:

- Q. Do SEED products reflect ESD as defined by the authoritative literature?
- Q. Do SEED products reflect Action Research as defined by the authoritative literature?
- Q. Do SEED products reflect Dynamic Qualities as defined by the authoritative literature?
- Q. Do SEED products reflect Quality criteria as defined by the authoritative sources?
- Q. Do SEED products reflect school development as defined by the authoritative literature

Summary of Key Themes

The SEED products reviewed by this evaluation reflected ESD as defined by the authoritative literature. They have dealt with principles such as critical reflection and concepts such as the UN Decade in Education for Sustainable Development. These components have been reflected in the workshops, conferences and seminars presented by ESD experts.

SEED products have reflected Action Research as defined by the authoritative literature. These principles have been reflected in the presentations of Action Research theory, workshops, and the explorations of case studies where these principles have been used in school development.

The concept of dynamic qualities has not been clearly reflected in SEED products. SEED has provided limited opportunities for participants to explore the theme of dynamic qualities related to school development.

The concept of quality criteria has been reflected in the SEED Publication 'Quality Criteria for ESD-Schools' and the comparative study. These publications have been based on the ENSI research and is a very useful tool for school development.

All SEED products released to date have a strong focus on the area of School Development.

Table 1: Reflection of Key Themes by SEED Products				
Education for Sustainable Development	Action Research	Dynamic Qualities	Quality Criteria	School Development
Concepts presented by SEED products				
<ul style="list-style-type: none"> ▪ United Nations Decade in ESD ▪ Critical Reflection ▪ School authorities as key players for a continuous and participative process of innovation. 	<ul style="list-style-type: none"> ▪ critical reflective practice ▪ cycles of improvement ▪ critical friends ▪ reflective strategies within Action Research processes facilitating school change 	<ul style="list-style-type: none"> ▪ Active participation ▪ Engagement with issues 	<ul style="list-style-type: none"> ▪ Quality Criteria regarding the quality of teaching and learning processes (e.g. perspectives for the future, values clarification and participation) ▪ Quality Criteria regarding school policy and organisation (e.g. planning, management and evaluation) ▪ Quality Criterial regarding the school's external relations (e.g. community cooperation and partnerships) 	<ul style="list-style-type: none"> ▪ Curricula development ▪ Policy development ▪ Professional development of teachers ▪ Community involvement ▪ Whole school approach
Examples of SEED events using these concepts				
<ul style="list-style-type: none"> ▪ September 2004 SEED event in Kassel offered input and discussion about the impact of Education for Sustainable Development on School Development. ▪ April 2005 SEED held a COMENIUS 3 Thematic Workshop for COMENIUS 1 Schools seminar on the UN Decade of Education for Sustainable Development titled: <i>'School Development In The Light Of Education For Sustainable Development: Challenge For Teacher Education And School'</i>. ▪ May 2005, SEED Conference held in Esjberg involved presentations from representatives from UNESCO, the agency responsible for the UN Decade of ESD. 	<ul style="list-style-type: none"> ▪ Presentation on <i>Quality development through Action Research in teacher education and environmental'</i>. Regula Kyburz-Graber: Szeged, 2003 ▪ <i>Presentation 'The Action Research Tool Box, a means to improve EE/ESD in schools'</i> Dr. Franz Rauch & Dr. Johannes Tschapka: Barcelona, 2005 ▪ Workshop on <i>'Action Research as a tool for reflective teaching in teacher education'</i>: Szeged, 2003 ▪ <i>Workshop on 'Contrasting methods in Action Research for ESD/EE'</i> Coordinators: Dr. Johannes Tschapka & Mag. Martin Scheuch: Barcelona, 2005 ▪ <i>'Keep contrast going: Critical friendship in AR for ESD/EE in schools'</i> Coordinators: Dr. Michaela Mayer & Dr. Mariona Espinet: Barcelona, 2005 ▪ Case Studies of Action Research in practice for example <i>Introduction of the Hungarian case study 1, Action Research tools</i>. Éva Csobod, Mária Koszo: Szeged, 2003 <p>Also see KIG comments in Section D of Portfolio of Evidence</p>	<ul style="list-style-type: none"> ▪ Workshop style of participation and engagement of participants (e.g. Frascati; Szeged. (also see PoE section G) 	<ul style="list-style-type: none"> ▪ Publication <i>Quality Criteria for ESD-Schools</i> ▪ Also published the more detailed <i>Eco-schools: trends and divergences. A comparative study on eco-schools development processes in 13 countries</i>. ▪ Intra-net documents on Quality criteria 	<ul style="list-style-type: none"> ▪ Reichenau, 2002 a lecture featured school development as a) curriculum development (teaching and learning), b) organisational development (learning organisation) and c) people (professional development of teachers; the whole human being). This presentation suggested that ESD was a trigger for school development. ▪ A keynote speech at the Thematic Conference in Szeged, 2003 <i>'Sustainable community and school development'</i> was presented on the role of community partnerships in furthering school development. ▪ The SEED publications tackle issues associated with school development. ▪ Also see KIG comments in section D of Portfolio of Evidence.

A Learning Network evaluation question:

Q. Do the SEED products assist members in learning from others' experiences?

KIG Survey –Denmark 2005:

What kind of information or knowledge are you exchanging?

KIG Member: *'During our project we have exchanged information, pictures about our joint activities in our web pages and by email. But it has been mostly meant for our own project members. One part of that reporting has been added to SEED pages, Comenius gallery and is therefore open for any other projects.'*

Dissemination evaluation question:

Q. Do SEED products assist you in disseminating the work of schools?

Q. How?

Dissemination - KIG Frascati

Q. What changes/projects do you intend to action?

KIG Member: *'Make notes to our Comenius-pages [ICT] about our trip, for the other partners to see... I'll also add the link of SEED. It was new to me, as well as our partners, I think.'*

Internal Evaluation, Helsinki 2005

Q. In your opinion what were the weaknesses of SEED?

KIG Member: *'personal difficulties to manage all the information as my working-time is very short....the online platform was settled too late in my opinion even now it does not really a tool of communication...communication and sharing of experiences are not on the level it should and could be*

A Learning Network

The products produced and disseminated as a result of SEED activities have increased the reach of SEED work undertaken via conferences, seminars and workshops. The wide dissemination of SEED products has provided opportunities in assisting members in learning from other's experiences. This was strongly articulated in the information provided by KIG (see Portfolio of Evidence section D).

The development of the publication *Quality Criteria for Eco School Development* is an example of how SEED facilitates members to learn from each other's experiences. This report is a comparative study of member countries of the explicit and implicit criteria underpinning EE in schools in countries in order to develop an overall set of quality criteria. The country reports were available for SEED members to access as required prior to the publication date.

Summary of Learning Network

The SEED products reviewed by this evaluation have been successful in assisting members in learning from others experience. Participants have been able to learn new approaches to teaching, share experiences and benefit from others experiences.

Dissemination

SEED provides all partners and members involved, especially government agencies and departments, with the network results and encourages their dissemination within their respective national educational systems. The ICT was also intended to facilitate this dissemination amongst a broader audience.

However in practice, some participants from Frascati (see PoE section E) also noted that there were few opportunities to formally present and share their school programs and achievements with all participants. Whilst they had opportunities to share their experiences with their immediate project team they felt that further dissemination was limited.

The ICT has also been underutilized as a tool for dissemination as initially it was not widely publicised and participants did not have the skills or time to update the site with their project information (see box).

Summary of Dissemination

SEED products have allowed for the dissemination of school development projects across the partners and members of the network. The dissemination of this work beyond the network has been limited by the underutilization of the ICT.

Overall Summary of SEED Products

Overall all the SEED products have been delivered professionally, in a timely manner and have been made available to all network members and partners.

The ICT function has been effective as a tool for improving transparency of projects among members and allowing ease of access to product information. The use of the ICT has been underutilized as a tool to disseminate the work of schools to a wider audience, mainly due to members lack of technical knowledge or time available to input data.

The content of SEED products have reflected good practice and have reflected the themes of Education for Sustainable Development, Action Research and Quality Criteria as presented by the authoritative literature. SEED products have focused specifically of how these themes relate to School Development. SEED has provided limited opportunities for participants to explore the theme of dynamic qualities and how this relates to school development.

SEED products have assisted members in being able to learn from others experiences by providing various forums for schools to share their work.

Performance

SEED has planned several network events to be focused on the following themes: contact (Austria), documentation (Hungary), research (Italy), exchange (Germany) and transfer (Denmark).

A number of key themes can be drawn from SEED work, these findings demonstrate that SEED provides:

- opportunities to explore key themes;
- interactive exchange and cooperation;
- opportunities to disseminate and promote good practice.

Key Themes

Education for Sustainable Development (ESD)

SEED work is underpinned by principles of ESD (such as critical reflection; envisioning; participation and action) and the innovative work of ENSI (partnerships and collaboration) in this area. The SEED products reflect these principles throughout. A number of experts in ESD have participated at SEED events alongside researchers, practitioners and policy-makers. SEED products have also been exploring the UN Decade on Education for Sustainable Development (UNDESD) for 2005-2014.

Frascati KIG Reflections on Environmental Education

KIG: *'Relationships between nature, economy and society + time'*.

KIG: *'SD or EE can be a tablet for everyone to stand on. So many subjects can fit on this tablet. One of our biggest things is to bring everyone together and so we can work with this'*.

SEED Achievements Evaluation Questions

Q: How effective are the workshops and conferences meeting SEED aims?

SEED Key Themes Evaluation Questions

Q: How has SEED performed in reflecting concepts such as **ESD, Action Research, school development**, as aligned with the authoritative literature?

Q: Is there evidence of SEED Key themes such as **AR, ESD, Dynamic qualities** occurring in projects as a result of the SEED network?

Evaluation Reichenau, Austria, 2003

KIG Member: *'I was able to revise my knowledge about **Education for Sustainable Development**'*

Report on Reflections about the COMENIUS I Contact Seminar October 2003:

*'The lectures by Prof. Jürg Minsch on Sustainable Development and by Dr Franz Rauch about the connection of Sustainable Development and School Development helped to gain some understanding of the differences between **EE** and **ESD**.'*

Frascati:

Participants explored **Action Research** theory and practice, as well as professional tools such as 'critical friends'. (see PoE section G)

Esjberg:

A two hour workshop was held in Esjberg where participants were able to explore the links between **action research**, critical reflective practice and program evaluation.

Frascati, Italy KIG Question

How does the Seminar contribute to Improving EE in Schools through Action Research (AR)?

KIG: 'I think it will improve everything you do, but when you are aware that you must take time for reflection and to avoid misunderstanding...So that is a kind of tool...To put it in the AR I don't know yet, but I will try.'

KIG: 'to get some more motivation and to know that I am on the right way.'

KIG: 'I think that maybe in the future we can improve all our educative action by AR, with our students everyday, to have a positive look on things, and to think as often as possible what we are doing. Sustainable evaluation I think. If I could manage this tool very well, maybe I could transfer it to other activities in education areas. A way of educating. I think it is very rich to have such a thing.'

KIG Members responses in 2005 to the question: What are 'dynamic qualities'?

KIG Member: 'I don't know what you mean by dynamic qualities.'

KIG Member: 'The concept of dynamic qualities is actually very unclear for most of people. I personally happened to get acquainted with the term when writing an article about Peter Posch.'

Use of the Quality Criteria Publicaitons

- In Catalonia the booklet will be published together with a section of the Comparative report in the Catalan magazine for Environemtal Education,
- In Hungary the QC Set will be included in a Ministerial publication,
- In Italy the publication will be presented in a meeting directed to educational authorities at the beginning of December.
- The Ensi research group will monitor the dissemination and the use of the QC set during 2005-2006, collecting data from different countries.

Action Research

SEED participants have been exposed to a wide range of opportunities to learn about and engage with Action Research methods for school development. The methods presented, explored and applied in SEED products have been those defined by the authoritative literature and include concepts such as cycles of improvement, critical reflective practice and critical friends (see PoE section G). Action Research has been made accessible through SEED products such as presentations on Action Research theory and methodology, workshops, case studies of Action Research in practice and publications.

In Frascati, Italy the KIG were asked the following question: *How does the Seminar contribute to 'Improving EE in Schools through Action Research?'* Responses ranged from the seminar providing information and motivation to implement Action Research in schools to Action Research providing a possible tool for improved reflection and practice. Many KIG members mentioned that they are doing something similar in their school already, such as 'stepping out' of the classroom to reflect upon the activities, or undertaking cycles of plan, act and reflect (see boxes and PoE section E).

During the course of the SEED program an additional need in Action Research professional development was identified: *'A course on Action Research as an instrument for school development can be developed (in relation with the tool box, but not necessarily before), and has been requested from different partners and countries as future COMENIUS 2.2 training course for teachers.'* (Szeged SEED Steering Group Meeting). The organisers have accepted this as a need and focused on providing opportunities for learning about Action Research at Frascati, Esjeberg and Barcelona.

As a result of the SEED work in Action Research there has been the development of *'a new and well functioning Action Research workshop scheme for COMENIUS 1 schools which could give a solid basis for mainstreaming Action Research and the ENSI philosophy in the COMENIUS world'* (extract from the final evaluation comments in Helsinki).

Dynamic Qualities

Although SEED has provided opportunities at all times for participants to engage actively and in a participatory way in SEED activities and events (see PoE section H) it has perhaps not explicitly articulated the rationale or importance of active engagement and the development of dynamic qualities. As a result, evidence from KIG and participants feedback suggests that SEED has provided limited opportunities for participants to explore the theme of 'dynamic qualities' and how this relates to school development. For example, as part of the KIG workshop in Frascati, participants were asked what they understood Dynamic Qualities to be but no answers were able to be provided (see PoE section E). In the final evaluation survey of the KIG members had not gained any clearer understanding of the term (see box).

Quality Criteria

SEED has produced a publication *Quality Criteria for ESD-Schools*. This publication reflects a comparison of the criteria leading the Eco-schools movement in thirteen participating countries. This report has been edited by Søren Breiting (Denmark), Michela Mayer (Italy) and Finn Morgensen (Denmark) and has been based ENSI eco-school research and

authoritative sources. It has resulted in the development of a set of quality criteria for Eco-school development.

In conjunction with this SEED has also published the more detailed *Eco-schools: trends and divergences. A comparative study on eco-schools development processes in 13 countries*. The authors of the comparative study are Finn Mogensen (Denmark) and Michela Mayer (Italy). This publication collects all the national reports provided by the participating countries and is introduced by the comparative report.

School Development

The SEED products have had a strong focus on the area of school development. The products have explored areas such as curricula development, policy development, professional development of teachers and have begun to look at whole school approaches and community involvement. There is initial evidence to indicate that this learning is being transferred to school projects (see boxes and PoE section F).

Summary of Performance of Key Themes

Participants have provided evidence that through SEED products they have gained an increased understanding of the themes Education for Sustainable Development, Action Research and Quality Criteria. There is also evidence that these concepts are beginning to be applied for school development. There is limited evidence that SEED has had an influence in incorporating the concepts of dynamic qualities into school projects.

Interactive Platform

SEED activities have been successful in providing a platform for exchange and cooperation between the COMENIUS projects.

SEED events have promoted active networking between schools, teacher education, pedagogical research and school authorities. Participants in all events have been able to connect in mutual interests and develop Comenius school partnerships or continue the exchange with already established partners (excluding approximately 5 who had difficulty finding an appropriate partner). At the final SEED partner meeting in Helsinki one participant commented on the kind of changes SEED has created in the personal work as having *'enriched the personal network experience and provided a lot of learning possibilities also in special aspects in EE and ESD. These would not have happened without SEED.'*

KIG Survey on exchange and cooperation

KIG: *'I am in touch with another local French school which is in the same Comenius I action in an other group. We belong to an association which has been practicing environmental education for years and we share ours experiences namely those done through the SEED seminars. These seminars have been very very useful to the global success of the action : the tools and the reflections developed by the ENSI animators are used and experimented in the different school projects. Reseach action is a basis of our work.'*

Internal Evaluation

Partner Meeting Helsinki, 2005

'The quality criteria publication is very useful for my work and I use it in my teacher further education.'

KIG Survey Denmark

KIG Member: *'...among other things, are an teacher education institution the outcome of the above mentioned Comenius 2 programme is expected to get impact the teacher education curriculum at our institution – not only in terms of involving sustainability issues but also in terms of using Action Research as a method for evaluation and further development'*

KIG Member: *'...The project of going to an eco school and the necessity of practicing ESD will be included in the next School Educational Plan (2005/2008).'*

Key Informant Group Frascati, Italy

Q. Changes intended to action as a result of Thematic workshop.

'Organise groups of teachers to distribute different projects all of them with the same aim.'

Help the Head Master in order to have next year a time table which let us work in project groups.'

Work in the Comenius project, in which we are with other four countries. Next year we are going to work in health and food, using in addition to other strategies, Action Research as a methodology with the students, as soon as, with the teachers team works. In the two meetings project, which we'll have next term, we will be able to exchange experiences.'

Interactive Platform Evaluation Questions

Q. Is SEED providing an interactive platform for exchange and cooperation between Comenius projects, Eco-schools initiatives and environmental networks?

Internal Evaluation Reflections

'Due to their intense communication and seemingly common ground teachers formed their project teams smoothly and quickly, except one teacher who did not find an appropriate project.'

Extract from reflections on the COMENIUS I Contact seminar December 2002 (see PoE section D)

KIG Survey –Denmark 2005:

What *kind of information or knowledge* are you exchanging?

KIG Member: *'We share activities and we learn new ways to teach and learn than later we can adapt to our school....We help each other how to deal with the difficulties we have to face in our work.'*

A Learning Network Evaluation Questions

Q: Do SEED activities show evidence of learning from the experiences of their previous COMENIUS projects?

Q: Does SEED facilitate the process of learning from each others experiences?

Q: What opportunities do SEED activities (such as workshops/conferences) offer for reflection?

Q: What opportunities are there to capture learning of a workshop?

Q: Is SEED a learning network?

Reichenau internal evaluation results:

1. Acquired new knowledge 67% (4) 24% (3)
2. Inspired to learn something new 76% (4) 18% (3)
3. Got to know new aspects of teaching and learning 42% (4), 30% (3), 21% (2)

Szeged internal evaluation:

1. I acquired new knowledge (3.3529)
2. I was inspired to learn something new (3.3529).

Reflections on Szeged Conference

'Too many stakeholders were involved without clear aim for each of them, which caused frustration and waste of time.'

'It is difficult to integrate the different groups (COMENIUS I, II, ENSI and SEED) as well as teachers, teacher trainers, researchers. It seems necessary to offer more floor of communication between teacher educators and researchers, both experts in the respective field, should be used more specifically but also in combination in workshops.'

KIG reflections on Frascati workshop content:

KIG member: *'I need to be practical, then I can remember and swap it over to my students. So it would be better maybe if we had a second chance to practice.'*

Summary of Performance as an Interactive Platform

There is evidence that SEED products have provided opportunities for exchange and cooperation between Comenius projects, Eco-schools initiatives and environmental networks.

A learning network

Internal evaluation results from all SEED events have reflected that the vast majority of participants have viewed the event useful in a) gaining new knowledge and b) being inspired to learn something new (see Reichenau internal evaluation box for statistics).

There is limited evidence that SEED events have offered participants space for reflection. This has been recognised through feedback mechanisms and is planned to be addressed through the event in Palermo planned for September 2005.

Initially the SEED events attempted to cater to all stakeholders, which it soon learned was not practical. The first major event of SEED (Szeged conference) was organized mainly by and for researchers and the event programs for other stakeholders were more or less side events. Initial feedback showed that this approach left many participants without a definite purpose (see box on reflections on Szeged conference).

Given this feedback, the management of SEED has learnt from this experience and has attempted to address it in various ways. A key lesson evolving from this is that having many kinds of stakeholders (teachers, researchers, politicians) at one event needs a very intensive, multilateral preparation. The feedback from subsequent SEED events indicate that the network has been improving in this area and learning from its experiences.

Although the network acknowledged that there is still a range of improvements or learnings to be incorporated into the program such as those highlighted by an ENSI Executive Committee after the Kassel Conference:

- 'The practical preparation of international co-operation meetings should be separated from the theoretical and educational focused events.
- It is vital to inform delegates as comprehensively as possible in advance of meetings to enable the necessary home-based preparation and consultation to take place.
- There are needs to be greater acknowledgement of the diverse needs of the target groups: for example teachers need planning time together, and solid, concrete material and examples that they can transfer to their own classroom situations (recipes).
- In addition to the key speakers, emphasis should also be placed on identifying moderators for working groups and structuring the working groups to be results-oriented.
- Appropriate time should be allocated for showcasing, focussed reflection time and unplugged socialising time where core themes can be pursued informally (Head, heart, hands concept, CM).'

Summary of Performance as a Learning Network

There is evidence that SEED participants have learnt from the experiences of previous projects and other member's work in school development. The learnings from workshops and other events have been captured by event reports which have then been made available to network members. SEED activities have provided various opportunities for participants to reflect on their practice and learnings but it is acknowledged that there was room to improve in this area. Participants have gained new knowledge in many areas relating to school development. However to truly embed this learning the participants have commented that more opportunities to apply it in practice would be of benefit. Overall SEED has been evaluated by its participants as an effective learning network.

Internal Evaluation

During a discussion relating to evaluation of SEED, the External Evaluators and SEED Steering Committee in Geissen (March 2004), made a decision to establish an internal evaluation team who would follow a specific line of action for the remaining time of SEED program.

Since this decision in March 2004 evaluation has taken place at the conclusion of each SEED event. This has taken the form of questionnaires distributed to all the participants which have then been reviewed and formed into an evaluation report. This data and the lessons learnt from their conclusions have been posted to the internal evaluation sub-community on the ICT.

In addition to this, the evaluation of SEED events prior to this decision have been supported by a process of reflection undertaken by Johannes Tschapka, Irene Krug and Günther Franz Pfaffenwimmer. These reflections, as well as the evaluation reports have had ongoing input into improving each subsequent SEED event in terms of content as well as management. The issues raised from this process will also provide a valuable resource for the development of future networks.

By improving the transparency and exchange of internal evaluation data outputs and reflections of SEED coordinators, there has been evidence of greater coordination between SEED activities. It is clear that the organisers of SEED events have learnt from and improved product delivery upon the findings and lessons learnt of each activity.

Initial feedback on the content of contact seminars indicated that they were generally biased towards theory with not enough time dedicated to case studies or practical examples of the methods. This feedback was taken on board in subsequent events which included a range of opportunities for participants to explore the theory in practice – from case studies, workshops, site visits to schools and exhibitions and discussions of projects by participants.

The overall satisfaction of participants has increased, this has been reflected in the feedback, especially as the earlier organisational difficulties have been resolved. In the most recent internal evaluations participants have been very supportive of the program structure, content and delivery (see box on Stjordal, Norway).

Internal evaluators reflections - Szeged

'The experience and prepared administrative documents (invitation, feedback form, confirmation form etc) from 2002 were very helpful to organise the contact seminar.'

'...With Hungary again it was necessary to in-officially/officially contact the National Agency so that would allow the Hungarian applicants to come to Austria.'

'...The feedback of some national agencies showed that they were better informed about COMENIUS III networks.'

Refer to PoE section D for more details.

Internal Evaluation coordination

May 2004, saw the development of an Internal Evaluation sub-community (currently hosting 10 members) on the ICT, in order to facilitate the required dialogue and exchange of findings. The group also collated a series of internal evaluation reflections from each conference and seminar conducted.

Internal Feedback from Stjordal, Norway (2004):

Q. Your opinion of the programme and the execution of it?

Comments from participants:

- *'Very constructive, positive, cooperative.'*
- *'Very well planned, effective in content and enjoyable.'*
- *'The seminar was excellent and run very well. Without doing it this way you couldn't successfully make links.'*
- *'The programme was executed at 100%. Everything was perfect.'*
- *'Rich and interesting; precise execution'*
- *'A very good programme – visits to local schools particularly valuable.'*
- *'A very good programme well executed by coordinators.'*

Summary of Performance of the Internal Evaluation

The process of internal evaluation has proved valuable in allowing the knowledge and experience gained from each SEED event to be transferred to the subsequent activities. Improvements have been ongoing throughout the lifespan of SEED to address issues that have been raised by the internal evaluation.

Intercultural Issues Evaluation Questions

Q: Has the SEED network developed a sense of belonging?

Q: How are the cultural differences managed? Is this effective?

Q: Do the different styles of work and thinking have a positive and negative impact on the aims that we want to achieve? (enriching or putting up barriers)

KIG Frascati:

KIG Member: *'Contact with other cultures is also a big enrichment'.*

KIG Member: *'Living –learning – loving nature is intercultural.'*

Vienna Arion Study visit feedback on the SEED intercultural experience What has helped this week?

'time for reflection/justification and sharing ideas and experiences'

'brilliant chance to extend intercultural friendships and understandings.'

'It's a great opportunity to extend European citizenship.'

'It was a good experience that could be further improved by future exchange on the realization of the programmes, concepts and projects on EE and SD in schools with Comenius action.'

'this workshop has been useful because it allowed us to: compare views, get information from everybody; to find common views and differences; be concise and clear and consider later analysis and reflection.'

Language Evaluation Question

Q: Does the SEED work ensure maximum participation and engagement with concepts, products, communication?

Q: Do SEED partners understand the EU jargon and requirements?

Intercultural Issues

Culture

The SEED program has managed intercultural issues through employing a number of strategies throughout the 3-year program. This include making the working language as English in order to have a common thread amongst participants, translating when required and exploring the cultural differences through workshops and social gatherings.

The cultural differences were managed by allowing extra time for participants to interpret and understand English during presentations, being conscious of different cultural etiquettes. The Frascati workshop showed the SEED team that culture is not only matter of languages, but matter of priorities in lifestyle and in thinking style, which are reflected by the language. Teaching and learning for EE and for ESD are therefore strongly dependent on national cultural priorities.

Each evaluation has commented on the difficulties experienced in communicating between program partners. At the same time, however, many have expressed how these differences have enriched the exchanges and have also been the highlights of SEED events. The participants valued the opportunity to experience their projects from different perspectives and explore how others interpret their work. At times the language barriers have caused participants to search for alternative ways to express themselves which inturn has caused them to reflect more deeply on their practice.

Language

English is used as the primary language of all SEED work. This has ensured consistency between all SEED events and assisted in extending the reach of the work to a wider audience.

However, given the diversity of language and culture of all member countries, this has proved a challenge on occasions. For instance SEED conferences, workshops and seminars are restricted to participants' grasp of English. At times, participants have commented that they need extra time to process the information and translate into their own language. As a result, it is possible that those not confident in English have not been able to contribute as much as what they would have liked.

It has often been reported (in SEED reflections and evaluations) that a barrier for effective and meaningful participation in SEED activities and research has been an issue of language. If teachers and participants have limited understanding of English their experiences with SEED have been affected to some degree. At the same time, feedback has been received which documented how the diversity of peoples and languages has enriched and informed SEED activities.

The complexity of theories and terms relating to EE, has also proved a limitation in SEED activities. Notions such as 'quality criteria', 'Action Research' and 'Education for Sustainability' have proven difficult to translate into every language. Extra time is required for SEED members to come to terms with these concepts if not already familiar and to discuss with their fellow participants and members in order to gain a deeper understanding.

SEED has alleviated this obstacle as best as possible by providing events which contain a mixture of presentations, workshops, small group discussions, group work, project-based work, site visits and social gatherings. This has improved the networking and provided a variety of means for which SEED's aims and objectives can be conveyed.

Summary of Performance in Intercultural Issues

The intercultural issues, especially language have at times provided challenges for the network to achieve its aims although where this occurred they were quickly overcome by the organisers and participants. Overall the participants feel that the cultural exchange provides more positive than negative impacts and has been one of the highlights of the network.

To ensure maximum participation and engagement with concepts and products SEED has delivered events which contain a mixture of presentations, workshops, small group discussions, group work, project-based work, site visits and social gatherings.

Management

The management of SEED has been successfully undertaken by the Ministry of Education and Training in Austria. This group has balanced the administration of SEED events, correspondence with members between the events and the overall coordination at SEED events.

SEED facilitates a close dialogue and better understanding between policy makers and practitioners in the educational systems. SEED encourages co-operation among stakeholders in current, completed and prospective COMENIUS projects and associated stakeholders in the field of environmental education.

SEED has enhanced face-to-face communication by thematic conferences (in Austria 2002; Germany 2004 and Denmark 2005), workshops on methodology (in Hungary 2003 and Italy 2004), and combined with these several COMENIUS contact seminars. The contact seminars have been aimed at developing school partnerships and teacher education seminars under the umbrella of the overall theme

Logistical difficulties experienced by practitioners and workshop planners with national agencies regarding promotion, participation and funding initially inhibited workshop participation and outcomes. National Agencies and their cooperation and knowledge of the SEED network, therefore plays a key role in whether member countries have a voice or get involved in the SEED projects and networks.

Internal Evaluators Reflections about the COMENIUS I Contact seminar October 2003: *'It again proved manageable and helpful to have English as only working language.'*

Internal Evaluation, Helsinki

What have you discovered about intercultural exchanges during this workshop?

KIG Member: *'I have discovered mostly positive things. There have been some language problems, but on the other hand I have been obliged to use other expressions to make my points of view to be understood and at the same time to reflect my intentions deeper. I got new ideas when talking with people doing the other projects.'*

Reflections on ARION 2003

'There was confusion about the working language due to the form of announcement by the EU (Language of the country: German, Working language: English).

We wrote "working language English" but had participants who had big difficulties with English. The organisation team and the ARION group managed to deal with that satisfactorily: The lecturers translated themselves (= gave bilingual lectures) or were consecutively translated, the discussion was mainly translated by Johannes and Günther partly supported by the French colleague (translating from English to French for the Italian colleague), by the second Italian colleague (translating into Italian) and one German colleague helping from English to German.'

See also Portfolio of Evidence.

Management Evaluation Questions

Q. How is the balance between SEED work, i.e. research, outputs for schools and administration of the project? Is SEED managing time and resources effectively?

Q. What opportunities are there for all countries to have a voice – or do some dominate?

Q. How does the EU influence the performance and impact of SEED?

Reflections about the COMENIUS I Contact seminar December 2002

The feed back of some national agencies showed that the connection with COMENIUS III was not clear and not a reason for supporting applications

Contacts and exchanges with the National Agency

Germany (Committee Szeged)

'Reiner had the opportunity to inform the National Agency in all parts of the states about SEED. They liked it. Good contact and Reiner will provide them with information. This enhances cooperation. Reiner will make a report on the conference and mail it to them.'

Denmark *'National communication with agency increased dramatically. OPimal communication. The Agency is very pleased when it has good, clear information.'*

External Evaluation Impact Survey 2005:

KIG: *'I could get money the first year, then I applied for the second ... I did not get any money for the second year.'*

...this did cause depressions in me, I could not understand, that nobody there looks at our work – because I'm really fond of our work on "Quality in life and at school"

Initially there was a great deal of confusion between SEED and the National Agencies as the connection between SEED events and COMENIUS III was not clear enough and thus they declined many applications from schools to participate.

In 2002 some of the issues encountered by the management team included:

- Confusion over who should pay for travel costs of participants. Which led in some instances for participants to obtain funding from their National Boards of Education (e.g. In 2002 Sweden and Norway).
- Teachers arrived at contact seminars but without a clear mandate from their head of school and thus could not fully participate.
- Additional intervention by the Austrian organisers with certain National Agencies to allow participants to obtain travel allowance (e.g. Hungary).
- Participants arrived at SEED events with no warning to the Austrian organisers (e.g. French delegation)

Following the feedback from participants and discussions with National Agencies the management team worked to eliminate these problems. By the end of 2003 feedback from some of the National Agencies indicated that they were better informed about Comenius III networks.

Although this was still an issue in 2004 as some National Agencies were unclear about their ability to support Comenius I schools to join the thematic workshops of Comenius III networks. This prompted a series of discussions by the Austrian organisers with the Socrates Bureau as well as with the European Commission. These negotiations resulted in a change to the regulations and thus allowed schools to participate in Comenius III network events with additional travel grants. Unfortunately this change in regulation came very late in the process and many schools were unable to attend these earlier events.

An earlier resolution of these issues would have resulted in less confusion, increased participation of schools and an overall increased level of satisfaction. There were a number of teachers who were early participants and developed a great enthusiasm for their projects, only to be greatly frustrated and disappointed as they were unable to obtain funding to attend subsequent events.

Summary of Management Performance

The management of SEED has been successfully undertaken with a good balance between the administration of SEED events, correspondence with members between the events and the overall coordination at SEED events.

The main obstacle to greater participation by schools of member countries has been the complicated or confusing EU communication materials and forms to obtain funding for participation in SEED events. Initial confusion with the National Agencies over the connection between SEED events and COMENIUS III was eventually rectified. Although this occurred relatively late in the lifespan of the program and had an impact on the participation levels.

Educational Authorities

There is little evidence to suggest that SEED has been able to make inroads within educational agencies across the member or partner countries. The SEED tools and products provided by SEED have provided a medium for agencies to engage with and advance EE and ESD within schools but the evaluation was unable to document evidence to suggest that this had been taken up in a systemic way by the agencies.

Educational Authorities Evaluation Question

Q. Does SEED provide pathways in EE and school development for educational authorities?

Overall Performance of SEED

SEED products have been effective in meeting SEED aims. To ensure maximum participation and engagement with concepts and products SEED has delivered events which contain a mixture of presentations, workshops, small group discussions, group work, project-based work, site visits and social gatherings.

Participants have provided evidence that through SEED products they have gained an increased understanding of the themes Education for Sustainable Development, Action Research and Quality Criteria. There is also evidence that these concepts are beginning to be applied towards school development. Although, there is limited evidence that SEED has had an influence in incorporating the concepts of dynamic qualities into school projects. SEED products have provided opportunities for exchange and cooperation between Comenius projects, Eco-schools initiatives and environmental networks.

Overall SEED has been evaluated by its participants as a learning network. SEED participants have learnt from the experiences of previous projects and other members work in school development. Although SEED activities provided opportunities for participants to reflect on their practice and learnings improvements could be made in this respect. Participants have gained new knowledge in many areas relating to school development, however to truly embed this learning the participants have commented that more opportunities to apply it in practice would be of benefit.

The process of internal evaluation has proved valuable in allowing the knowledge and experience gained from each SEED event to be transferred to the subsequent activities. Improvements have been ongoing throughout the lifespan of SEED to address issues that have been raised by the internal evaluation.

The intercultural issues, especially language have at times provided challenges for the network to achieve its aims although where this occurred they were quickly overcome by the organisers and participants. Overall the participants feel that the cultural exchange provides more positive than negative impacts and has been one of the highlights of the network.

The management of SEED has been successfully undertaken with a good balance between the administration of SEED events, correspondence with members between the events and the overall coordination at SEED events. The main obstacle to greater participation by schools of member countries has been the confusing process of obtaining funding for participation in SEED events. The initial confusion with the National Agencies over the connection between SEED events and COMENIUS (although rectified eventually) had an impact on the participation levels.

The SEED tools and products provided by SEED have provided a medium for agencies to engage with and advance EE and ESD within schools but the evaluation was unable to document evidence to suggest that this had been taken up in a systemic way by the agencies.

Impact

Reach

Q. What is the impact on others outside of the SEED network? for example how many politicians and governments have been touched by SEED?

Q. Has SEED been effective in increasing international communication between and within Comenius projects?

Q. Has SEED been effective in increasing networks and partnerships?

Q. Is there evidence of SEED impacting upon policy relating to school development in EE or similar?

KIG Survey

What changes to school/institution policy have taken place as a result of participation in SEED?

'Continuous collaboration with local institutions: Town Hall, Agricultures Association, Training teachers Office... to develop a Sustainable Education inside and outside school.'

KIG Survey

Since your participation in SEED are you more aware of Comenius projects outside your country? What kind of contact do you have with other Comenius projects?

'Yes I will definitely be more aware and open to other international projects and networks...'

The only platform for communicating with other projects has been the workshops and meetings in Reichenau, Szeged, Frascati and Barcelona. Especially Barcelona was a great happening and we had lots of conversations concerning EE in our schools and countries. The problems seemed to be very much the same in different countries.'

Reach

As a result of SEED members work in school development, some schools have reached out to other institutions in their local area. Through this process they have extended the impact of EE beyond the school grounds.

These working partnerships has gained support for SEED projects from various bodies including, local communities, local governments, regional authorities and various associations.

Since their participation in SEED there is evidence that members have become more aware of COMENIUS projects outside of their immediate area or country. They have had increased opportunities to share their work internationally.

Participants have described a variety of forms of information and knowledge which has been exchanged internationally. This is best summed up by a KIG member in response to the Denmark Survey on impacts:

- **'Motivation:** How to motivate teachers, pupils and parents in the project and in all the changes we are trying to do.
- **Activities and Strategies:** We share activities and we learn news ways to teach and learn than later we can adapt to our school.
- **Difficulties:** We help each other how to deal with the difficulties we have to face in our work.
- **Reflection:** One of the essential parts of the teaching process is the action's reflection. The level of reflection increases when you have to explain what you do, why and what do you want to achieve.'

Summary of Reach

SEED members have developed projects which have extended the reach of SEED beyond their schools to local governments, associations, businesses and local communities. SEED has been effective in increasing international communication between and within Comenius projects with evidence of sharing knowledge and experiences. Through the participation in SEED members have begun to have impacts upon policy relating to school development.

Partnerships/Networks and Linkages

To a large degree SEED has been able to facilitate cooperation and exchange amongst its stakeholders working on COMENIUS projects. This has been most evident in the development of school partnership projects (see also PoE section F).

Members of SEED have developed new partnerships during the course of their participation. A range of partners have been cited by the KIG which include the local community, local institutions, associations, regional authorities and national government. These partnerships bring support to the participants in terms of extra finance to achieve their goals, broader understanding of the concepts and a forum to discuss the effects and knowledge gained from participation in SEED.

As a follow up to their participation in SEED, several members have plans for new networks/partnerships:

- Based on the Quality Criteria outlined by the work of SEED and consolidated in the publication a proposal will be put forward in 2006 to the Italian Ministry to develop a new national network for ESD schools.
- Also based on the 'Quality Criteria of ESD- Schools' a strong partnership has developed between the DVO and the Department of Nature and Environmental Education and Communication of the Flemish Ministry of the Environment. This partnership aims to develop common policy making regarding ESD in the Flemish Community.
- Stimulated by their experience managing SEED, the Austrian Ministry of Education is planning to develop, in conjunction with other countries, a new Comenius III network application.

Summary of Partnerships and Networks

Participants have cited many links between schools and community which have come about as a result of the SEED network. Participation in SEED has created a greater link between pupils teachers and their schools.

Partnerships have been a key outcome of the SEED program. During the program existing partnerships have been strengthened, new partnerships have been developed or are planned for the future. The linking of these new partnerships to existing programs or through seeking support from government bodies will ensure that these partnerships are successful and ongoing.

Partnerships Evaluation Questions

Q. Is there links evident between schools and community as a result of SEED?

Q. Has SEED been effective in linking pupils, teachers, schools and teachers educators?

Q. Are partnerships being developed to continue after SEED?

Q. What evidence is there that these partnerships will continue?

Partnerships internal evaluation results'

Evidence of finding project partners

Reichenau: 70% (4 points), 15% (3 points) and 3% (2 points)

Szeged: (new partners for future

Frascati KIG reflections on need for mutual support and partnerships:

KIG Member: 'in my school we made little projects in EE since 20years and the oldest question is how to implement this perspective in the structure of the school. We are alone to formulate this question and for me it was very important as a school/colleague/teacher that has the same question about the structures. So the question of strategies is very very important.'

Frascati KIG: Partnerships

KIG Member: 'We went to Reichenau twice, and the first time it was about "Learnscape". So when we went to the contact seminar the next year, it was to find partners that were interested in "Learnscape". We have worked on developing the schoolyard. The schoolyard is going to be changed a lot. May be it would have been anyway, but it has been more interesting to work together in an international group and the commitments have been stronger.'

KIG Member: 'In my school, a group of teachers, were trying to educate in EE as a tool to change habits and behaviour in order to go to a more sustainable school. We were in a project in our community about recycle the whole school. Reichenau was a step forwards. There we found other people interested in the same idea, new and useful information and a lot of beneficial exchanges.'

KIG Survey 2005 reflections on existing partnerships:

KIG Member: 'Of course the ENSI network will continue after 2005, and many of the existing Comenius 1 partnerships born with SEED will continue.'

SEED Key Themes

School Development

What has been the impact of SEED on school development?

KIG Survey

School development:

'For our school projects we have developed pedagogical tools that let us organise them and reflect about main objectives, process, difficulties, achievements and how to improve next time.'

As a result of participating in SEED a French school will be incorporating various policy changes into their School Education Plan for 2005-2008. These include the necessity for practicing ESD and learning from local eco schools.

KIG reflections on Frascati workshop content: What would be different if SEED (this seminar) had not taken place?

KIG : *'We wouldn't have this information about EE as a way to improve the education.'*

We wouldn't have all of this beneficial exchanges with other schools and other cultures.

I wouldn't have been able to meet these schools with which we are working in a Comenius project. It's a very good group who work in an excellent way.

Without Frascati we wouldn't have had the information of Action Research, different points of view, critical friends... And, working sessions with other teachers from other countries, and workshops inside our own project (very useful ones).'

Internal Evaluation Survey, Helsinki

What kind of changes have SEED caused in the work of your institute?

KIG Member: *'The whole school staff and pupils have been trained to use Prof Ahlberg concept mapping technique.'*

KIG Member: *'Participation in a Comenius + program: ESD issues in teacher training curriculum perhaps an ESD centre at the university college.'*

School Development

The impact of SEED on school development has been in a number of areas:

- Generally the schools which have participated are more supportive of the idea of School Development through Environmental Education. SEED has created a focus on EE and ESD within the school communities. This has been due to both participation, an international profile on the subject and the various publications which have arisen from SEED.
- This international focus has allowed for the allocation of working hours to work on SEED projects. Without this support the impacts of SEED would have been limited.
- Changes have occurred in the way teachers interact with each other. In some cases teacher meetings have become more topic or project oriented. Staff meetings are now seen as ways to introduce new methodologies and more reflection on practice is occurring.
- Development of formal structures to deal with EE projects. For example an Environmental Council has been formed in one school which involves teachers, pupils and parents.
- Increased motivation of teachers and their students with regards to the learning process.
- Evaluation has been introduced as a tool to improve education practice and the skills developed to use it effectively. (Action Research)
- Participation in SEED has provided the teachers and practitioners a specific focus and support to work on Environmental Education.
- The support of SEED has given participants more confidence to plan, develop, implement and evaluate their actions for sustainability. Often this occurs with a group of motivated teachers within a school who develop activities or projects which allow the school development process to occur.

Summary of Impact on School Development

The SEED program has created a focus and support base for school development. The international attention on this area has allowed for the allocation of working hours to school projects. Teachers have developed greater knowledge and the confidence to apply this to effect change in school policy and practice. Formal structures have been created to aid EE for school development.

Dynamic Qualities

There is little evidence of dynamic qualities in students as a result of the low level of understanding for this term. This is mainly due to the fact that SEED has had limited influence in reflecting the concept of 'dynamic qualities' throughout its work. It has also had limited influence on incorporating these concepts as part of the Comenius projects. Whilst some of the KIG members are aware of the concept this has been mainly due to their existing knowledge rather than any specific work of SEED.

This does not mean that 'dynamic qualities' in students do not exist, or have not been developed due to teacher participation in SEED events. This only indicates that there is a low awareness of the term and thus these qualities can not be easily identified.

The few KIG members who are comfortable with the term have been able to identify a range of examples of dynamic qualities that they have seen in their students or colleagues:

- Students have provided ideas for school environmental plans and are willing to participate and be responsible for these actions.
- Students are committed to their opinions and willing to do sustainable actions even in their homes.
- Teachers have learnt to handle problems differently and create a new way of working with students
- Teachers are more aware of the values we must consider in our teaching.
- Students become more and more critical with what happens at school.
- With the Environmental Education and Education for Sustainability as a main line in the school project the staff can analyse and reflect which can be the changes in our school and how we can go to this school development.

Summary of Impact on Dynamic Qualities

The SEED program has had little impact in developing dynamic qualities in students as a result of this theme not being clearly articulated through the SEED products or explicitly addressed through seminars and workshops.

Curriculum Development

Generally the area of curriculum development is seen as a difficult area to change from within individual schools as it tends to be governed by national bodies. Although some participants have attempted to tackle this problem indirectly through the development of interdisciplinary projects which promote ESD.

This difficulty of effecting curriculum change from the ground up highlights the benefits of involving government education departments in SEED along side the practitioners. There is evidence, that as a result of participation in SEED, changes to curricula are slowly occurring. Due to the nature of curricula development and implementation, these changes

Dynamic Qualities

What evidence is there of dynamic qualities in students?

KIG Survey

What are 'dynamic qualities'? And can you give any examples you have seen in your students/colleagues?

KIG Member: 'The concept of dynamic qualities is actually very unclear for most of people. I personally happened to get acquainted with the term when writing an article about Peter Posch.'

KIG Member: 'One of the most important dynamic qualities is the capacity to cope with uncertainty and to be able to change. I often see when a teacher begin to work in the field of ESD she/he often leave her/his routine and begin the re-plan her/his work regularly. This continuous renewal is very rare -but fortunately growing - phenomena in Hungarian public education.'

KIG Survey

What are 'dynamic qualities'? And can you give any examples you have seen in your students/colleagues?

KIG Member: 'Ability to define a problem and to generate solutions (and reflect on the process of generating a solution and the ability to change the solution): all last-year teacher students are involved in a thematic project that includes sustainability aspects. The dynamic learning qualities enumerated are the main objective of the project.'

Curriculum Development

What evidence is there that SEED has impacted upon curriculum development?

KIG Survey

What changes to school/institution policy have taken place as a result of participation in SEED?

KIG Member: 'In France, the curricula are national and a school can't do any change...It remains very complicated to change something within the French structure.'

KIG Survey

What changes to school/institution policy have taken place as a result of participation in SEED?

KIG Member: 'DVO is a partner in the SEED network...is a part of the Department of Education of the Ministry of the Flemish Community...as DVO is responsible for the development of the final objectives of compulsory education and the basic competencies of the novice teachers, there is an indirect influence on school curricula.'

Internal Evaluation Survey, Helsinki

KIG Member: 'As a SEED partner I can link my schools with international ESD programmes, which have in some instances already become part of the mandatory curriculum like ECO schools.'

Quality Criteria

To what extent has Quality Criteria had an impact in promoting new perspectives of EE and ESD?

KIG Survey

What is your understanding of 'quality criteria'? How is this linked to Environmental Education and Education for Sustainable Development?

KIG Member: 'I have the understanding and I have seen the work done in SEED/ENSI. In my opinion there is no need for strict criteria given by others. The most important is how the school has created its own aims. There are so many different ways of being a "green school" or any other. I don't agree in strict qualifications or boundaries. Our environmental plan consists of many different parts and participants. We don't want to be defined by others. The educational change into sustainable school is our aim.'

Internal Evaluation Survey, Helsinki

KIG Member: I think that SEED, and especially the Quality Criteria research, allowed me to involve again my institution in ENSI. It is not sure but probably my institution will try to come into the decade for the national evaluation of the DESD and this will be a Quality Criteria and SEED merit.

will be less immediately noticeable than other 'in school' projects but the effects should be more long lasting. For example the Flemish DVO works closely with KHLeuven (a teacher training institute) which partly as a result of the SEED project will change their curricula starting from 2006. The changes include a sustainable development focus in the module 'world orientation' (see PoE section F). These changes to curricula have been extended, through a joint project with other departments, to include sustainable development within mainstream courses (e.g. Home economics). A number of proposals to integrate modules on sustainability into professional teacher training programs as well as school curricula have been put forward.

In Austria the area of teacher education has been a key focus area as a result of their participation in SEED. This has stimulated the development of a new course for train-the-teacher-trainers in Education for Sustainable Development and Action Research. This has been fed into a new Comenius II activity on competencies which is being led by Belgium/Flanders.

Summary of Impact on Curriculum Development

At this stage the SEED program has had limited impact on curriculum development. It is estimated that a number of the projects and partnerships developed as a result of SEED show signs that they will have impact on curriculum development in the future.

Quality Criteria

The development of the publication '*Quality Criteria for ESD-Schools*' by SEED has led the way in promoting new perspectives of EE and ESD within schools. This document has recently been released and its impact will only be truly measurable in the future. The concept or need for 'quality criteria' is also a contested topic which requires further dialogue and development before there can be a common understanding of the term (see box).

Although it should be noted that already the process of development has created a dialogue in this area and stimulated a number of proposals such as the idea to develop a national network of ESD-Schools in Italy.

Summary of Impact on Quality Criteria

The SEED program and its development of the publication on quality criteria has created a dialogue between participants on this theme and has aided in developing new perspectives of EE and ESD.

ENSI

Participants believe SEED and ENSI have a strong connection. The linkages have been visible in both the content of what they are trying to promote and the activities that they organise together. Typically ENSI's philosophy and experience in school innovation is largely recognised whilst SEED is seen as providing the methodologies and opportunities to implement this innovation. The co-operation with ENSI experts was seen positive by participants. The connection between SEED and ENSI was made visible during the workshops in Szeged and Frascati (see PoE section J).

ENSI:

To what degree will SEED program contribute to developing ENSI ideas?

Summary of Impact on ENSI

The SEED program has contributed greatly to developing ENSI ideas. The SEED program has effectively been seen as a vehicle through which participants can put into practice the ideas, innovation and theory developed by ENSI. This connection is viewed as positive by participants and they are very glad to have this opportunity.

KIG Survey

What connection do you see between ENSI and SEED?

'ENSI...and SEED...Both of them working together have a wide and coherent vision of School Development through Environmental Educaiton'

'ENSI is a network of members of worldwide universities which is developing the SEED project within the Comenius III structure.'

'Our school has also been and ENSI school but it hasn't given anything concrete so far. Being part in Comenius 1 and SEED has given us opportunity to act, travel and do things in school, I hope ENSI will be more important after SEED.'

'To me the two bodies are of a piece – SEED makes a frame and covers financially some of the costs connectd to working with ENSI 'tasks'.'

Overall Impact of SEED

SEED members have developed projects which have extended the reach of SEED beyond their schools to local governments, associations, businesses and local communities. SEED has been effective in increasing international communication between and within Comenius projects with evidence of sharing knowledge and experiences. Through the participation in SEED members have begun to have impacts upon policy relating to school development.

The articulation of key themes of school development, education for sustainable development, Action Research and quality criteria have had a direct impact on project and school practice. The SEED program has created a focus and support base for school development. Teachers have developed greater knowledge and the confidence to apply this to effect change in school policy and practice. Formal structures have been created to aid EE for school development. The SEED program and it's development of the publications on quality criteria have created a dialogue between participatns on this theme and has aided in developing new perspectives of EE and ESD.

The SEED program has had little impact in developing dynamic qualities in students as a result of this theme not being clearly articulated through the SEED products. Also at this stage the SEED program has had a limited impact on curriculum development. It is estimated that a number of the projects and partnerships developed as a result of SEED show signs that they will have impact on curriculum development in the future.

Partnerships have been a key outcome of the SEED program. During the program existing partnerships have been strengthened, new partnerships have been developed or are planned for the future.

The SEED program has contributed greatly to developing ENSI ideas. The SEED program has effectively been seen as a vehicle through which participants can put into practice the ideas, innovation and theory developed by ENSI.

Recommendations

This report has identified the following recommendations for future action:

1. Create further opportunities for countries to explore the value of Environmental Education in whole-school development. The focus of future programs/networks should go beyond curricula development to look at for example: community partnerships and school management.
2. Use the comprehensive work completed by SEED on *Quality Criteria in ESD-Schools* and *Action Research* as the basis for further extension work. Support the emerging national programs/projects in these areas which have arisen from members' participation in SEED.
3. Streamline or provide greater clarification in the administration of COMENIUS grants to enhance the accessibility and increase the participation levels of any future programs/networks.
4. Extend the evaluation of SEED to include a review of impacts in four years time. This will enable funding bodies to gauge the impact of activities which are not immediate such as changes in curriculum.
5. Continue to support financially and administratively cross-European networks in the area of EE as they have proven to be a valuable force for innovation in schools. These networks should learn from the experience of SEED particularly relating to:
 - *the use of Information and Communication Technology, such as websites.* These platforms can be valuable sources of exchange and interaction but need to be designed to fit with the needs and capabilities of the users as well as being supported financially and technically;
 - *the provision of a system of continuing support* or mentoring to assist members to implement the knowledge they have gained from participation; and,
 - *how to conduct an internal evaluation process.* Internal evaluation is a critical process that allows the learnings of the network to be formalised and improvement made during its lifetime. Time and resources should be allocated to internal evaluation as it provides the participants an avenue for input into the development of the program/network and ensures it matches their needs.



External Evaluation of SEED Portfolio of Evidence September 2005

A. Data Sources used in the Evaluation

Website ICT (www.seed-eu.net used for content, management and communication)

Key note presentations, seminar slides and notes

COMENIUS I or II and SEED workshops and reports

- Thematic Conference on '*Environmental education as a driving force for school development.*' December 6-9 2002, Reichenau/Austria.
- Arion Study Visit '*Role and Function of Principals in a Sustainable School Development.*' May 12-16, 2003. Vienna, Austria.
- Thematic Workshop '*Thematic Workshop on Sustainable Community and School Development.*' Innovation in Teacher Education, the potential of Action
- 'Research and Environmental Education.'. COMENIUS 2 Contact Seminar. Szeged, Hungary September 3-6 2003.
- Thematic Conference in '*Education for Sustainability and School Development.*' COMENIUS 1 Contact Seminar, Reichenau, October 24 – 27, 2003.
- Thematic Workshop on '*Improving EE in Schools through Action Research*' in Frascati, Italy March 26-28, 2004.
- Thematic Conference 2 '*School Development in the light of Education for Sustainable Development*' Kassel, Germany. September 29-October 2, 2004
- Comenius III Thematic workshop for Comenius 1 Schools '*School development in the light of education for sustainable development: Challenge for teacher education and school*' Barcelona, Spain 6-10 April 2005
- Thematic Conference '*Building Capacity and Empowerment through ESD*' Esbjerg, Denmark 19-21 May 2005

SEED Annual Reports

- Annual SEED Report, December 2003
- Annual SEED Report, December 2004

SEED Steering Committee meetings (minutes)

- SEED Partner Meeting. *Weilburg/Germany.* February 28-March 3 2003.
- SEED Steering Group Meeting *Szeged, Hungary* September 3-6 2003
- SEED ENSI Review Meeting 2 and 3rd October, Kassels, 2004

SEED Publications

- '*Quality Criteria for ESD-Schools*'
- '*ECO-schools: trends and divergences. A comparative study on ECO-school development processes in 13 countries.*'

Internal Evaluation – Reflections

- Reflections about COMENIUS I Contact Seminar December 2002
- Reflections about COMENIUS I Contact Seminar October 2003
- Reflections about ARION Study visit 2003
- ENSI SEED Plenary Session Notes by Paul Hart at Szeged 6th Sept 2003
- Interim Internal Evaluation Report of SEED Network 2005

Internal Evaluation – Feedback and Reports

- Reichenau, Austria Conference Feedback Dec 2002
- Szeged, Hungary Conference Feedback 2003
- ARION Study Visit Feedback, Vienna, May 2003
- Reichenau, Austria, Contact Seminar, October 2003
- Frascati, Italy, Contact Seminar, March 2004
- Kassel, Germany Conference Feedback and Review 2004
- Stjordal, Norway Contact Seminar Feedback 2004
- Barcelona, Spain Internal Evaluation Report 2005
- Esjberg, Denmark, Participant Feedback SEED Conference, 2005
- Helsinki, Finland, SEED Final Partner Meeting, September 2005

Key Informant Group

- Workshop held in Szeged, Hungary 2003
- Focus Group held in Frascati, Italy 2004
- E-Group discussion pre and post Kassel 2004
- Survey conducted after Denmark seminar 2005

B. SEED Evaluation Framework

Data sources	External Evaluation Focus	Evaluation Questions	Data Sources for evidence
Products	How effective are SEED products?		
	SEED products (<i>workshop reports, conference reports, Annual Reports Etc</i>)	Who is receiving copies of these documents? How are these recipients identified?	SEED SC, IE, KIG
		Have all SEED products been developed and within the proposed project timeline i.e.. such as the Action research toolbox?	EE
	Information technology and transfer (ICT)	Who has access to ICT?	ICT administrator
		Who is using the ICT?	ICT, KIG, administrator
		What is the ICT being used for?	ICT, KIG
		What information is featured on the ICT?	ICT and administrator, SEED SC, EE
		Does the information presented (or how it is presented) on the ICT include or exclude members?	KIG, EE
	Reflecting Good Practice	Does SEED offer examples of what works in schools?	SEED P and SC, IE, KIG, ICT
		Do SEED products identify good practice within COMENIUS projects and disseminate a wider educational audience?	SEED P and ICT
	SEED core themes		
	<i>Education for sustainable Development</i>	Do SEED products reflect <i>ESD</i> as defined by the authoritative literature?	SEED P, ICT, KIG, SEED SC,
	<i>Action Research</i>	Do SEED products reflect <i>Action Research</i> as defined by the authoritative literature?	SEED P, ICT, KIG, SEED SC,
	<i>Dynamic Qualities</i>	Do SEED products reflect <i>Dynamic Qualities</i> as defined by the authoritative literature?	SEED P, ICT, KIG, SEED SC,
	<i>Quality Criteria</i>	Do SEED products reflect <i>Quality criteria</i> as defined by the authoritative literature?	SEED P, ICT, KIG, SEED SC,
	<i>School Development</i>	Do SEED products reflect <i>school development</i> as defined by the authoritative lit?	SEED P, ICT, KIG, SEED SC,
	A Learning Network	Do the SEED products assist members in learning from others' experiences?	KIG, S
	Dissemination	Do SEED products assist you in disseminating the work of schools? How?	KIG, ICT
Performance	How has SEED performed?		
	Achievements	How effective are the workshops and conferences meeting SEED aims?	KIG, SEED Steering Committee, Internal Evaluators
	<i>SEED Key Themes</i>	How has SEED performed in reflecting concepts such as ESD, AR, school development, as aligned with the authoritative literature?	EE, ICT, SEED A, KNS
		Is there evidence of SEED Key themes such as action research, ESD, dynamic qualities occurring in projects as a result of the SEED network?	KIG, S, ICT
	Interactive Platform	Is SEED providing an interactive platform for exchange and cooperation between Comenius projects, Eco-schools initiatives and environmental networks?	ICT, IE, KIG, SEED A
	Partnerships	Is there links evident between schools and community as a result of SEED?	KIG, ICT, S,
		Has SEED been effective in linking pupils, teachers, schools and teachers educators?	KIG, ICT, S,
		What evidence is there that partnerships will continue after SEED finishes?	KIG, S, IE, ICT
	A learning network	Do SEED activities show evidence of learning from the experiences of their previous COMENIUS projects? -i.e.. is feedback and learning been taken into account for next meeting	IE, SEED SC, EE
		Does SEED facilitate the process of learning from each others experiences?	KIG, S, SEED A, S
		What opportunities do SEED activities (such as workshops/conferences) a workshop offer for reflection?	KIG, SEED A, S
		What opportunities are there to capture learning of a workshop?	SEED A, SEED P, IE, ICT
		Is SEED a learning network?	KIG, EE, IE, S
	Intercultural Issues	Has the SEED network developed a sense of belonging?	SEED Products, KIG
	<i>Language</i>	Does the SEED work ensure maximum participation and engagement with concepts, products, communication?	SEED A, SEED P, KIG, IE
		Do SEED partners understand the EU jargon and requirements?	KIG, S, IE
	<i>Culture</i>	How are the cultural differences managed? Is this effective?	KIG, SEED SC, SEED A, IE, S
		Does the different styles of work and thinking have a positive and negative impact on the aims that we want to achieve? (enriching or putting up barriers)	KIG, S
	Management	How is the balance between SEED work, i.e. research, outputs for schools and administration of the project? Is SEED managing time and resources effectively?	KIG, SEED SC, S
		What opportunities are there for all countries to have a voice – or do some dominate?	KIG, SEED SC, ICT, S
	Educational Authorities	Does SEED provide pathways in EE and school development for educational authorities?	

Impacts	What are the impacts of SEED?		
	Reach	What is the impact on others outside of the SEED network? for example how many politicians and governments have been touched by SEED?	KIG, SEED SC, IE, S
		Has SEED been effective in increasing international communication between and within Comenius projects?	KIG, SEED SC, IE, S
		Has SEED been effective in increasing networks and partnerships?	KIG, SEED SC, IE, S
		Is there evidence of SEED impacting upon policy relating to school development in EE or similar?	SEED SC, KIG, S
	Partnerships/Networks and Linkages	Are partnerships being developed to continue after SEED? What evidence is there that these partnerships will continue?	KIG, S, SEED SC, IE
	SEED Key Themes		
	<i>School Development</i>	What has been the impact of SEED on school development?	KIG, SEED SC, IE, S
	<i>Dynamic Qualities</i>	What evidence is there of <i>dynamic qualities</i> in students?	KIG, SEED SC, IE, S
	<i>Curriculum Development</i>	What evidence is there that SEED has impacted upon curriculum development?	KIG, SEED SC, IE, S
	<i>Quality Criteria</i>	To what extent has QC had an impact in promoting new perspectives of EE and ESD?	KIG, S, EE, IE
	ENSI	To what degree will SEED program contribute to developing ENSI ideas?	SEED SC
	Change and New knowledge	Do the COMENIUS school development projects promote educational change and improvement?	KIG, SEED SC, EE
		Is there evidence of change for school and curriculum development in SEED schools compared to non-SEED schools?	
	European Union	How does the EU influenced the performance and impact of SEED?	SEED SC

Framework Key for Data Sources
EE - External Evaluators
IE - Internal Evaluators
ICT - SEED Website and intranet
ICT Administrator - Austria
SEED P - SEED Event and Annual Report
SEED O - outputs such as publications, toolbox.
SEED A – activities such as workshops/conferences and seminars
SEED SC - SEED Steering Committee
S - Final EE survey
KNS - Keynote presentations

C. Key Informant Group

Name	Position, Title	Email	Country	Project	Key Informant Session		
					Szeged, Hungary	Frascati, Italy	Esberg, Denmark
Anne Zacharias	Robert-Schuman Institut	zacharias.anne@learnbox.be	Belgium	Quality of Life, Quality at school		X	
Attila Varga	SEED steering group	vargaati@vnet.hu	Hungary		X	X	X
Carmen Nogueira	English Teacher - Secondary School	carmenni2@eresmas.com	Spain	Quality of Life, Quality at school		X	X
Denis Charron	Professional Teacher (Economics in Civil Engineering) postgraduate students - Cite Scolaire	decharron@wanadoo.fr	France	Quality of Life, Quality at school		X	X
Eren Andersson	Senior Environmental and Procurement Advisor	eren.andersson@torslanda.goteborg.se	Sweden	Environment: conscience and behaviour		X	
Finn Mogensen	Researcher	Finn.Mogensen@cvu-vest.dk	Denmark		X		
Gunn Syvertsen	Deputy-Headmaster	gunn.syvertsen@arendal.kommune.no	Norway	Remodelling our schoolyard by involving the whole school community		X	
Günther Franz Pfaffenwimmer							X
Helga Gruber	Secondary Teacher - Musikhauptschule Weiz	gruber.hel@aon.at	Austria	Quality of Life, Quality at school		X	X
Ingrid Danninger	Secondary Teacher - KMS Kooperative Mittelschule	ingrid.danninger@chello.at	Austria	Water is Life		X	
Jean-Michel Lex	Robert-Schuman Institut	agora.rsi@swing.be	Belgium	Quality of Life, Quality at school		X	
Kerstin Halldin	Headmaster secondary school	kerstin.halldin@torslanda.goteborg.se	Sweden	Environment: conscience and behaviour			X
Mervi Heinonen	Primary School Teacher - Sorrilan Koulu	mervi.heinonen@vlk.fi	Finland	Exploring and Interacting with our environment	X	X	X
Michela Mayer	INVALI		Italy				X
Orsolya Janosik	National Agency	janosik@tpf.hu	Hungary		X		
Reiner Mathar	Teacher Training	r.mathar@help.hessen.de	Germany		X		
Rosaria Raciti	English Teacher - Secondary School - Scuola Media Statale 'Galileo Galilei'	r.raciti1@virgilio.it	Italy	Quality of Life, Quality at school		X	
Søren Vinding	Student Teachers	vinding@fanonet.dk	Denmark		X		
Willi Sleurs	Govt Ministry Partner	willy.sleurs@ond.vlaanderen.be	Belgium		X		X
Zsuzsanna Iván	Head Teachers	ivanzs@freemail.hu	Hungary		X		

D. Internal Evaluation – Reflections

Reflections about the COMENIUS I Contact seminar December 2002

(Irene Krug und Günther Franz Pfaffenwimmer)

We had 70 enthusiastic and well experienced teachers from 14 countries at the seminar. Building and presenting the poster exhibition gave an impressive picture on the variety and professionalism of Environmental Education activities of schools present.

It seems that focusing on a special topic "Environmental Education as driving force for school development" helped to invite (= pre-select) interested and experienced teachers who found common interests and understanding. 2/3 of the school present had contacts to ENSI in their national Environmental Education (EE) programmes.

The lectures by Michela Mayer on ENSI and its pedagogic approach and by Franz Rauch about the connection of EE and School development helped to gain a common understanding of ENSI/SEED principles.

The different methods used to structure and moderate the contact seminar (lectures, group work, moderated group processes, exhibition plus market, excursion/walk,) helped to keep up high working intensity.

Due to their intense communication and seemingly common ground teachers formed their project teams smoothly and quickly, except one teacher who did not find an appropriate project.

Comments on preparing the contact seminar:

We had an e-mail exchange with the Belgian/Flanders National Agency. In the end they did not send any school to Austria.

We had an e-mail exchange with the school in Germany /Hessen. The teacher was allowed to come but obviously he had no clear mandate from his head of school and could not join a project.

We had confusion with some national agencies about who should pay the travel costs of teachers. Finally from Sweden (totally) and Norway (partly) the National Board of Education paid travel costs of their delegation.

On request of the Hungarian SEED partner it was necessary to in-officially/officially contact the National Agency so that they would allow the Hungarian applicants to come to Austria. The National Agency's feed back (told by Attila Varga) was that this additional intervention by the Austrian organisers was necessary to support the formal application of the teachers for travel allowance.

The French delegation was a "surprise parcel". They arrived although nobody had informed the Austrian organisers. Due to the flexibility of the organisation and of the venue it was no problem to warmly welcome and integrate them.

The feed back of some national agencies showed that the connection with COMENIUS III was not clear and not a reason for supporting applications

The Austrian Socrates bureau was very helpful and supportive. The high number of participants (70) caused some initial doubts, if the seminar could be managed successfully.

The representatives from other Socrates Bureaus who attended the contact seminar were very supportive for schools in their planning processes.

It proved manageable and helpful to have English as only working language.

The co-operation with ENSI experts was seen positive by participants. The connection between SEED and ENSI could be made visible.

Working and living incl. staying overnight in the same venue proved to be supportive, especially for the long informal times used for exchange.

Reflections on ARION 2003

(Irene Krug, Günther Franz Pfaffenwimmer and Johannes Tschapka)

We had 13 interested and interesting participants from 9 countries. Some of them did not have special practice with Environmental Education. They came due to the fact that seemingly the title of the ARION Study visit was not communicated in its full length (showing ECO schools as common ground).

Yet it proved that all participants had some experience with Environmental Education and their point of view helped to enrich the discussion.

Seemingly the date of the ARION seminar was communicated incorrectly by some national authorities. I.e. the starting of the study visit was falsely interpreted for Monday 9.00 instead of Monday 16.00 hours.

There was confusion about the working language due to the form of announcement by the EU (Language of the country: German, Working language: English).

We wrote "working language English" but had participants who had big difficulties with English. The organisation team and the ARION group managed to deal with that satisfactorily: The lecturers translated themselves (= gave bilingual lectures) or were consecutively translated, the discussion was mainly translated by Johannes and Günther partly supported by the French colleague (translating from English to French for the Italian colleague), by the second Italian colleague (translating into Italian) and one German colleague helping from English to German.

Communication with participants was partly complicated as e-mail addresses were incorrect and ways had to be found via fax and/or phone.

We offered to organise the ARION study visit from Monday to Friday. The ARION organisation urged us to organise accommodation for individual staying time in Vienna (variety ranged from arrival on Friday until the following Sunday in all variations of dates). The individual wishes were sent to us until one week before the start of the seminar. We were lucky that the venue in Kardinal König Haus was flexible enough to host participants as Vienna was fully booked due to Vienna festival weeks.

It proved practical (despite heavy doubts of the ARION responsible department in the Austrian Federal Ministry for Education, Science and Culture) to offer an "all inclusive" package for the costs. It reduces complications to collect every single bill by the participants themselves. Participants decided to take the advantage of the "all inclusive package".

The different methods used to structure and moderate the contact seminar (lectures, group work, moderated group processes, excursions and guided visit of town) helped to keep up high working intensity.

Working and living incl. staying overnight in the same venue proved to be supportive, especially for the long informal times used for exchange.

Participants welcomed the connection with COMENIUS III as possibility to continue communication.

The Austrian Socrates bureau was very helpful and supportive.

Reflections about the COMENIUS I Contactseminar October 2003

(Johannes Tschapka, Irene Krug und Günther Franz Pfaffenwimmer)

We had 50 teachers from 14 countries from different backgrounds and with different experiences in the field of Environmental Education seemingly due to the more general topic "Education for Sustainability and School Development".

The wider range of experiences of participants was also visible in the initial poster exhibition which showed a range from whole school development processes to single classroom activities.

The lectures by Prof. Jürg Minsch on Sustainable Development and by Franz Rauch about the connection of Sustainable Development and School Development helped to gain some understanding of the differences between Environmental Education and Education for Sustainable Development.

The topics and the contents of the lectures seemed to be more general in relation to the lectures given in 2002. The participants had some difficulties to find common ground and to form project teams. E.g. two teachers did not join any of the project teams because they missed a higher intensity of Environmental Education and also had difficulties because of age levels of students (elementary schools vs. lower secondary school)

The different methods used to structure and moderate the contact seminar (lectures, group work, moderated group processes, exhibition plus market, excursion/walk,) again helped to keep up high working intensity.

Comments on preparing the contact seminar:

The experience and prepared administrative documents (invitation, feed back form, confirmation form, etc.) from 2002 were very helpful to organise the contact seminar.

A problem was that countries paid the bank fee for the money transfer differently, some of them paying it additionally, others deducting it from the conference fee. The difference can make up to 5 % of the money transferred.

With Hungary again it was necessary to in-officially/officially contact the National Agency so that they would allow the Hungarian applicants to come to Austria.

The feed back of some national agencies showed that they were better informed about COMENIUS III net works.

The Austrian Socrates bureau again was very helpful and supportive.

It again proved manageable and helpful to have English as only working language.

In the 2003 contact seminar the connection between SEED and ENSI could not be made visible as there was no lecture about ENSI and its principles.

Working and living incl. staying overnight in the same venue again proved to be supportive, especially for the long informal times used for exchange.

Reflections about the COMENIUS I Contact seminar March 2004

(Johannes Tschapka, Irene Krug und Günther Franz Pfaffenwimmer)

50 teachers from 13 countries from the COMENIUS 1 contact seminar in Reichenau 2002 came to Frascati. The poster exhibition showed the first steps of their co-operation projects.

The main expectations of the participants were to share experiences and to present their interim results. For the development of the seminar programme this was challenging as the main topic of the seminar was the introduction of Action Research (AR).

The lecturer team (Mariona Espinet, Michela Mayer, Franz Rauch, Johannes Tschapka) managed to combine the above mentioned expectations of participants with the methods of AR.

The participants had different experience with AR from beginner level to being teachers of AR. Finally all COMENIUS projects involved developed their AR scheme for the following years.

The different methods used to structure and moderate the contact seminar (inputs, group work, moderated group processes, exhibition plus market, excursion/walk,) again helped to keep up high working intensity. There were no lectures but inputs to the phases of group work.

Comments on preparing the thematic work shop:

It was difficult to prepare this work shop via e-mail due to technical differences of the mail servers and resulting difficulties of communication.

It also took some time to clarify who would be the responsible team of work shop leaders. Primarily Michela Mayer and Franz Rauch had this task, Johannes Tschapka had originally only organisational tasks and Marina Espinet should have the role of a critical friend. In the end Michela and Johannes led the whole seminar, Franz gave inputs to the work shops on two days and then had to leave, Mariona switched roles between lecturer in some parts of the seminar and critical friend for the whole seminar.

The experience and prepared administrative documents (invitation, feed back form, confirmation form, etc.) from 2002 and 2003 helped to support the organisation of the thematic workshop in Italy from the Austrian ministry of Education. The financial logistic was done in Vienna.

The only critical point was the transfer of the organisation from Vienna to Rome in the mid of the phase of application. The schools were confused where to ask for information and it was difficult to send the right invoices to the participants.

Again the problem occurred that countries paid the bank fee for the money transfer differently, some of them paying it additionally, others deducting it from the conference fee. Irene began to search for regulations of international money transfers in Europe to deal with these extra costs.

We had confusion with some national agencies about the support of COMENIUS 1 schools to join thematic work shops of COMENIUS III networks.

Through a series of interventions by Johannes Tschapka as well in the Austrian Socrates Bureau as in the European commission the European commission changed the respective regulation. Schools are now allowed to participate in thematic work shops of COMENIUS III network with additional grants to their regular travel allowance. Nevertheless this regulation came too late for some schools to receive funding for this seminar.

The contact from Johannes during this period of negotiation to some National Socrates Agencies helped to explain them the COMENIUS III idea and construction.

The Italian Socrates bureau was very helpful and supportive. The high number of participants (50) coming again after the contact seminar in 2002 showed the success of the contact seminar and proved the SEED work plan to be right. Participants asked to have a third seminar together a year later to continue and finalise the AR process. Mariona Espinet agreed to organise this next work shop in Barcelona.

It proved manageable and helpful to have English as only working language. Reflecting their projects and teaching methods in the light of AR cultural differences caused more time of discussion in order to develop mutual understanding. When doing so participants experienced this as high potential for their own school projects.

The Frascati seminar is the first occasion in the ENSI history that teachers reflect their teaching practice in internationally composed projects teams. The co-operation with ENSI experts was seen clear and positive by participants.

Working and living incl. staying overnight in the same venue proved to be supportive, especially for the long informal times used for exchange.

E. External Evaluation Focus Group – Frascati

Thematic Workshop 'Improving EE in Schools through Action Research' Frascati, Italy.

Key Informant Focus Group Session - Saturday 27th March 1400hrs

Focus Group Themes and Questions

- **Why are you here?**

KIG 1: *To meet people (and partners), to share and to stop (to take time out and get some distance from teaching and be able to reflect on work and project)*

KIG 2: *Decided to have a project meeting here instead of going to one of our project partners countries, because we thought it would be an interesting experience both to meet our partners and to have the seminar. But actually we didn't know about this conference, we were told in Reichau about SEED but I didn't understand what it was. So we were keen to know more about SEED and what is the aim of it and get news from SEED.*

KIG 3: *Yes, I agree with all the ideas, but also to learn about evaluation – the AR. I want more information as I did a small project already, but I wasn't sure that I did it in the right way or if there are some faults in it. And to get more information and also to get information from others.*

- **What are you hoping to get out of this event?**

KIG 5: *To get to know AR better, and to make this a natural way of working when we go back to work. So getting the skills.*

KIG 6: *I wasn't sure of the term critical friends before. But I had two friends who helped me to look at the problems. And I know it is called critical friends. And very important for me, is Comenius project new, and I didn't know if I did a good job, and so it is good to have contact with the partners not only by email but by talking.*

KIG 3: *So we can get some personal responses.*

SEED key themes- 'school development, EE, dynamic qualities, action research'

- **What do you understand by 'school development', 'EE', 'DQ' and 'AR'?**
- **School Development**

KIG 4: *In my school we made little projects in EE since 20 years and the oldest question is how to implement this perspective in the structure of the school. We are alone to formulate this question and for me it was very important as a school/colleague/teacher who has the same question about the structures. So the question of strategies is very very important.*

Kate: *So strategies to push EE into the structure of the school?*

KIG 5: *Getting better – quality.*

KIG 1: *Quality of the school and quality of the learning. Ideas to work to a common culture – mainly in the ideas of sustainable development. Deal with resources, deal with waste.*

KIG 6: *For me it is very important to learn to avoid the problems caused by misunderstanding. The one says something – which doesn't mean what the other one thinks.*

Kate: *So improved communication for school development?*

KIG 6: *Yes.*

KIG 7: *I think SDev is also about a whole-school approach. All are involved to get whole staff involved.*

KIG 1: *The community – inside and linked with local community. I think it needs to improve the environment inside the school. I think often we do an interesting project outside the school and inside the school it is depressing – the energy is wasted etc.*

KIG 4: *In my opinion there are two dimensions to this problem, the problem of management and pedagogy. We believe we have a part of the answer – ISO14001, but it is difficult for all the educational and training dimensions.*

- **Action Research**

KIG 5: *Reflection I think is a key word. We try to use some of this in my school. We used to say we are 'on-stage' when we are out with students and class and when we go back we are 'off-stage' and so reflection is my key.*

KIG 1: *Circle would be a key word for me.*

KIG 3: *I agree with the circle, sometimes you are in the circle (with the children), and sometimes you have to step out of the circle esp in AR, because if you are always in the circle sometimes you can't get an overview. So if there are problems, mistakes or if only good things happen, because sometimes you need a position far away from what they are doing to observe etc. They are no frame so that you are able to step in and step out.*

KIG 7: *Development – own development and whole school community.*

KIG 1: *The idea of the circle was not the same - acting, reflecting, acting*

KIG 8: *Motivation for here is important because the students learn and the way of learning students are motivated, because they all construct their own.*

KIG 6: *I like the political dimension – I think we all want to change society a little bit, so values are dangerous in this way.*

- **EE**

KIG 1: *Relationships between nature, economy and society + time.*

KIG 2: *It is also about changing behaviour.*

KIG 4: *I have a problem with this word. I have a colleague who says what they do is the best, another person educating in health says we are the best. Others who work for citizenship say the same and so on and so on. My challenge is to break all the boxes. SD as a term is easier.*

KIG 1: *The problem is that this word is used too much by Coca-cola etc.*

KIG 3: *SD or EE can be a tablet for everyone to stand on. So many subjects can fit on this tablet. One of our biggest things is to bring everyone together and so we can work with this.*

- **Dynamic Qualities**

KIG 7: *Peter Posch talks about this in his book I think.*

(Kate/notes: no-one had any explanation on this term.)

The objectives of SEED: (refer handout) performance, products and impacts.

Performance:

- **How does the Seminar contribute to 'Improving EE in Schools through Action Research'?**

KIG 1: *Giving tools. We will give the answer 1 year after now, we have to practice now so we don't know exactly how it will contribute but we know the way it could contribute.*

KIG 4: *I find AR very interesting, a good tool to manage the transformation of the school, but I have a problem to see the distance between AR and pedagogical systems. The distance is not very clear for me.*

KIG 3: *We have to find a link between the project work and AR.*

KIG 5: *I think it will improve everything you do, but when you are aware that you must take time for reflection and to avoid misunderstanding. We have started all our meetings with 'check in' (what do you expect from these meetings) so I know what you are thinking in case it is not the same as me. So that is a kind of tool. Afterwards we check-out. To put it in the AR I don't know yet, but I will try.*

KIG 3: *To get some more motivation and to know that I am on the right way*

KIG 6: *And not alone on the way!*

KIG 1: *I think that maybe in the future we can improve all our educative action by AR, with our students everyday, to have a positive look on things, and to think as often as possible what we are doing. Sustainable evaluation I think. If I could manage this tool very well, maybe I could transfer it to other activities in education areas. A way of educating. I think it is very rich to have such a thing.*

KIG 6: *I think it also has effects on the personality. The personal.*

KIG 3: *Yes, when you remember my story on critical friend, because it changed me as a person and my surrounding a lot. Because I interact with that a lot.*

- **Does this seminar offer examples of what works in schools How?**

KIG 2: *I think we found it more theoretical than practical. We discussed that this morning, we say it was very nice to do this work, but not enough examples of how it works.*

KIG 1: *I think that it is all workshops you have to experience, I think here we have not seen examples which we could adapt.*

KIG 3: *I think you also have to be aware of being able to speak about yourself and your experience in a big group. We know each other very well but it is sometimes to step over that border and say what I think...maybe it is a fault or a celebration. Its hard to be able to do that. To get all the personality out. I remember when I was first asked to tell the story I really decided to say no, but then I thought why shouldn't I share personal things with you?*

KIG 2: *But that is the part that you remember. You remember more when you tell something about what you have actually done. But when you tell practical examples which I don't know, you remember it. Because the other thing you can read in a book. Success and non-success stories- Not just success stories.*

KIG 6: *I think it is too quick, you cannot do everything at once.*

KIG 3: *I need to be practical, then I can remember and swap it over to my students. So it would be better maybe if we had a second chance to practice.*

The SEED aims are (refer handout)

Partnerships

- Have partnerships with other teachers in other countries resulted in **changes** in your work? What changes have taken place as a result? What are the joint actions?

KIG 5: *I think we will now this afternoon, because we have some questions to work with, so now we are going to say what we have learned.*

Kate: *From the last conference to here now in Frascati has there been any change?*

KIG 2: *In our school it has changed. In Reichau, we had a project meeting and then we came back, and I am the headmaster in my school, so I had a group of teachers interested in these items, and so we started to think what we can do. Then we had a program and we worked with different things in the school. It is very important that it is not just a group of people, but the whole school. We support of the headmaster. We have even involved the parents, so in their homes they are saving water when they brush their teeth and recording this, electricity and so on. The students bring these questions home to the parents. It is very interesting. There is a whole new concept called Eko-team, as a result of Reichau, so when we returned we had the opportunity to go to an Eko-team course, and it was just at the right time. So now we work with Austria and Spain.*

KIG 6: *One change I would like to contribute, is I took my headmaster to get him involved. So he got to know me in other circumstances and so it has started to change.*

KIG 2: *We when came here we didn't realize that we would just talk about AR, we thought it would have more information on EE in France or Australia or anywhere. If we could have a suggestion for next time, please mix it. So we can have both. Of course, we can look at these lovely posters but it would be nice to have a small presentation about different topics not from everyone. For example we could have told you about this*

wonderful Eko-team programme, and I think a lot of people could use it. And not just the workshops, because they took a long time like the water. So using the people here to share information.

KIG 6: They should have more care with electricity

KIG 3: And the plastic cups etc. changing towels everyday. etc

KIG 1: For some of us it is a bit early to evaluate, this is the 2nd meeting, it would be interesting to go on in a year. This questionnaire is long, and so I need time to answer them and think about it. Especially because it is in English.

Linkages

A. Intercultural Exchange (language and culture)

- How do you manage the cultural differences? What benefits are there? What difficulties do you face?

KIG 8: All the participants had a very good predisposition to the others and a lot of interest in sharing experiences and knowing other ways of life and teach.

KIG 5: We have learned that our cultural differences are lesser than we thought.

- What benefits are there?

KIG 8: In teaching, the routine isn't a good way of work. Teachers and educators need sometime stop, think and reflex about our work. In this seminar a lot of us think of what can we do to generate a school development.

KIG 5: We discuss different ways of thinking, and of course we learn a lot from each other. How to organise practical things in school, and pedagogical methods.

- What difficulties do you face?

KIG 8: In these situations you need social abilities and sometimes this is not easy. The language is also a handicap to communicate, but on the other hand you have the possibility of knowing other languages and practice in English.

KIG 5: If nobody speaks English it is a problem. In our group all the contact persons speak English but not all the teachers at the schools. And we would like to spend more time together.

- Do the different styles of work and thinking have a positive and negative impact on the aims that you want to achieve? (ie. Is this process enriching or putting up barriers).

KIG 8: Always is positive to know different styles of work and thinking, in that way you can realise of others points of view. In groups like that one, this is very interesting because there is a lot of different people and the experiences are rich. Sometimes at the end we join the ones that have more common points with us.

KIG 5: It is positive that is why we won't to join these groups. To get to know other countries way of thinking on a common subject.

B. Links between 'schools and communities' and teachers and 'teacher educators'

- What evidence is there of links between your
 - schools and communities?
 - teachers and teacher educators?

KIG 8: I don't know if I understand the question correctly, but we work together with the sustainable office preparing activities, being a member of the "forum per la Sostenibilitat en Almàsora" (Agenda 21 for our village). We are also in a school project organised by the training teacher centre and sponsored by a bank.

Products:

- Are you aware of the SEED products? (SEED reports from workshops, seminars)

KIG 8: When they send me information by email about the seminars.

- Do you use these products, (how and for what purpose) (are the products helping you learn from the experiences?)

KIG 8: I've been in the seminar in Reicheneau and in Frascati, and in these experiences I've found people who work together and ways of improving the development of the school.

- Are you using the ICT (SEED website)– are you aware of its existence? How often are you using it? What do you use it for? How could it be more beneficial/improved? (IE. What type of information would you like to see on this website?)

KIG 8: I visited once after the Reicheneau meeting but I wasn't been a able work in it. Now with the information gave in Frascati, I'm going to start again using it. We could find ideas about how to join students, parents and, of course, teachers in this way of education. Maybe a place in the websides where we could find ways to education about – save resources, waste, health.

KIG 5: I don't use the website but I am aware of it. But I often use the Norwegian "Comeniusnytt". There I find links to many program.

- What impact has Reichanu had on your work? What has changed since then? What have been the

Changes

joint actions?

KIG 8: *In my school, a group of teachers were trying to educate in EE as tool to change habits and behaviour in order to go to a more sustainable school. We were in a project in our community about recycle the whole school. Then Reichenau was a step forwards. There we found other people in the same idea new and useful information and a lot of beneficial exchanges.*

KIG 5: *We went to Reichenau twice and the first it was about Learnscape. So we went to the contact seminar the next year it was to find partners that were interested in Learnscape...maybe it would have been anyway but it has been more interesting to work together in an international group and the commitments have been stronger.*

Future actions

- **What happens when you leave Frascati?**

KIG 8: *After Frascati I have new ideas about how to transfer this idea in real activities and actions with the students but starting with the teachers.*

KIG 7: *I have so many projects going on with my classwork and connected to our Comenius project that I'm afraid I won't have time to concentrate on making notes or anything else connected with action research. A big school like ours seems like you are always busy and not really ever have time for reflecting together. After awhile I'm going to give a report on my feelings about the conference to my professor together with my "critical friend" Annukka.*

- **What changes/projects do you intend to action?**

KIG 8: *Organise groups of teachers to distribute different projects all of them with the same aim. Help the headmaster in order to have next year a time table which let us work with project groups. Work in the Comenius project in which we are with other for countries. Action research as a methodology with the students, as soon as, with the teachers teamwork. In the two meetings project, which we'll have next term we will be able to exchange experiences.*

KIG 5: *Get on with our work with the school yard. We joined a Norwegian project we hope to use action research in some of our work at school.*

KIG 7: *Going to plan the visit of our Hungarian partners; make notes to our Comenius web pages about our trip for other partners to see; I will add a link to the SEED website; going to start with planning our alternative carnival 1st of May; according to our mini partner meeting we will make changes to original plans for the Hungarians to see.*

- **What would be different if SEED (this seminar) had not taken place?**

KIG 8: *We won't have this information about EE as a way to improve the education; we won't have all of this beneficial exchange with other schools and cultures; I won't have been able to meet these schools which we are working with. It's a very good group who work in an excellent way; without Frascati we won't have had the information of action research, different points of view, critical friends...and working group sessions with other teachers from other countries very useful.*

KIG 5: *Then we had lost the opportunity to meet all these nice people from all over Europe.*

KIG 7: *I won't have realized what action research means and I won't have been assured that my way of doing action research is best for us. I and the rest of us Northern people are not so fanatic about the tool called action research. At first I was very confused but now thinking back I am doing things my way. For me action research is kind of artificial, I means "frames" to me. As I am doing my doctoral studies I am making notes and collecting data and also have time to think back and reflect my own way...I have other critical friends and the knowledge forum KF is our learning diary because the text stay there and we always return to them and comment and develop.*

- **Any other comments?**

KIG 8: *This kind of seminars are very important to the teachers to encourage them in improving their work and leave the routine. You have more incentives to make better the school situation. Contact with other cultures is also a big enrichment.*

F. External Evaluation Survey after Denmark 2005

The Value and Impact of SEED: Changes and developments

1. What changes have you seen in your school/institution since participating in SEED?

Finn Morgansen (FM): The SEED programme has had impact on my institution at (at least) three levels:

1. on an institutional level it has put focus on the issues of EE and ESD – not least due to the two publications I am co-writing with Michela Mayer and Søren Breiting
2. the decision that there has been allocated working hours to a number of colleagues for working intensively on ESD development programme for teacher students in a Comenius 2 programme
3. finally, the institution has got experienced in making international conferences - and as a spin-off of this it has been recognised by our national Ministry of Education to be one of the leading institution in the field of ESD, compared to other institutions of the same kind

Denis Charron (DC): By the way of the Comenius I project, we have created a core group of teachers (10 to 12) who exchange and reflect about the methodologies used in the ESD actions we have doing in classes or groups of students.

After one year of scepticism, the headmaster and the purser join the project.

Helga Gruber (HG): we can work more concentrated on the topic environmental education, and I've learned in Frascati, how to evaluate (swot)...our school already was working according to attention of environment.

Attila Varga (AV): Not particularly SEED caused our changes, but the fact that Hungary has joint to EU. It means a lot of new International co-operations. On one hand these co-operations are very useful as a source of information and experiences, but on the other hand because of the quantity of co-operations. there are often not enough resources to disseminate the gained experiences. SEED is ship-flag of dissemination. The framework of SEED helped NIPE a lot to disseminate its own experiences toward Hungarian schools and teacher education institutions.

Mervi Heinonen (MH): It's not just participating in SEED but changes in our school are part of many actions and persons involved, (pupils, teachers, staff, local community).

The changes have been seen so that more classes and teachers have taken part in the environmental actions. More outdoor education have taken place.

More pupils have been participating because of the Comenius1-joint activities and by the money from EU. Other teachers (I am the motor/coordinator) have become more interested because of the opportunity to travel to partner schools/countries. Especially the teacher taking part in the trips have been most involved.

My alter person "Aunt Green" has become an important part of our school. Kids stop me even in the town calling me Aunt Green. Then they usually have something to tell about the environment or nature. I started my "career" just by an accident, I visited every class asking their opinions to our school environmental plan. Then I made a green uniform and that has been my trade mark already for 3 years.

Willy Sleurs (WS): As the influence of DVO participating in SEED is indirect on the school curricula, the period between the start of SEED and today is too short to draw any conclusions.

Carmen Noguiera (CN): With the participation in SEED, the school community is more and more inside the idea of Environmental Education as a way of developing school.

In all the staff meetings there are more questions about new projects, new methodologies and more reflection than before.

The pupils and teacher's motivation for going forward and growing in the process teaching and learning has increased.

Consolidation of a group of about ten teachers that organize, pilot, motivate... activities and projects that let this school development happens.

2. In what ways has the school/institution developed?

HG: there was a change in the teacher meetings – we do work in groups on special topics.

AV: As mentioned above SEED is a tool for NIPE to involve school into international co-operation, thus to disseminate its own experiences.

MH: As I mentioned in no.1, more teachers have become active during the Comenius1-project. But to be honest, the other teachers have not really known anything about SEED. It's only been me who realizes the connection between Com1 and SEED.

I have had my "critical friend" from the other Finnish partner school Mahnala and with her we have reflected the situations. In our own schools the discussion has been minimal.

The effect of the comenius1-project activities has been concrete and they have given real objectives to the school.

We were given this year's WWF/Naturewatch grant for our environmental work. We had a celebration and then we all could see/hear how much we really have done during the past years. The grant gave our students and staff and local people (many newspaper articles were made on it) the impression that we really have accomplished an important task.

WS: Several lecturers of the KHLeuven are involved in the curriculum development process of the module 'world orientation' and consequently interest in the concept of sustainable development has grown. The teacher education department started a joint project with other departments (e.g. home economics) to include sustainable development in the regular courses.

CN: PARTICIPATION. We have an Environmental Council (E.C.) at school where teachers, pupils and parents participate and where each year we have more and more members. In this E.C. we carry on with different activities, this year we have been concentrated in our ecological vegetable garden and with activities related with health and food.

REFLECTION. For our school projects we have developed pedagogical tools that let us organize them and reflect about main objectives, process, difficulties, achievements and how to improve next time

3. What changes to school/institution policy have taken place as a result of participation in SEED?

Michela Mayer (MM): My institution then, changed in the last years for political reasons, and mainly for the worse, losing many of its more engaged researchers.

FM: At the moment, not any specific changes to school policy has happened but ideas of inserting modules on sustainability in professional bachelor programmes has been put forward

DC: The project of going to an eco school and the necessity of practicing ESD will be included in the next School Educational Plan (2005/2008)

MH: We have added the most successful activities (dealing with environment and that have been part of our Comenius project) into our school curriculum. In that way they will be part of our school work in the future. Our local school management has been positive to our project. They are supporting teacher training, for instance. Our head teacher has also been very supportive, even though she has not been very active. She gives me the responsibility in this project. From this year we have had an environmental team, it has helped my work. I also have had some extra wages for Comenius/curriculum work this year.

WS: Sustainable development will be a key concept in the module 'world orientation' of the curriculum of KHLeuven (cf. Remarks).

CN: Implication of the headmaster and the headmaster's team in the new pedagogical proposals for this school development.

Continuous collaboration with local institutions: Town Hall, Agriculture Association, Training teachers Office... to develop a Sustainable Education inside and outside school.

4. What are 'dynamic qualities'? And can you give any examples you have seen in your students/colleagues?

MM: Dynamic qualities are the ones we discussed in ENSI, internationally and nationally. Dynamic qualities, internationally are defined as the 'contrary' of the static qualities often required by traditional teaching. Dynamic qualities were defined as motivation, decision making skills, sense of responsibility, willingness to engage and to be engaged, participation ... In Italy we added some more reflections about the needs of integrate static qualities has the ability to listen to others opinion and point of view, solidarity, and also a 'negative capability' (proposed by a social researcher, Lanzara), intended as the capability of wait and not move in emergency situation, trying first to understand the situation, not proposing fast short term solutions, but giving room for reflection. Many of these 'dynamic qualities' are similar to entrepreneurship qualities (proposed as key competences for long life learning in a document for the European Union) but are based on different values: it is not enough to have an active attitude or be as teacher pro-active, the main question is for what aim, and within what framework.See my presentation on Ensi in Korea last year.

DC: I don't know what you mean by dynamic qualities. An example may the group of students who made a very deep work about recycling and recycled paper. Then they promote paper saving, paper recycling and the use of recycled paper at school and outside school. They committed other students to go on with the action next year and they impulsive a group of local actors for using recycled paper and buying it at a lower price.

HG: 'dynamic qualities' for me are improvements in relations – I learned to handle problems different, especially when we do work on projects with pupils, we found a new way to work together – teachers and pupils!!!!....(solving problems, accepting some critics)

AV: One of the most important dynamic qualities is the capacity to cope with uncertainty and to be able to change. I often see when a teacher begin to work in the field of ESD she/he often leave her/his routine and begin the re-plan her/his work regularly. This continuous renewal is very rare -but fortunately growing - phenomena in Hungarian public education.

MH: The concept of dynamic qualities is actually very unclear for most of people. I personally happened to get acquainted with the term when writing an article about Peter Posch.

One example of an initiative is when my pupils wanted to get more town garbage cans. One of my parents helped to get the initiative through in the municipal organizations and the thing was arranged. Even the town main gardener came to our school and asked for pupils' ideas of the suitable places for the cans.

Also the kids gave me ideas for the environmental plan telling what they think is important to do. They mentioned saving energy, water, paper, and recycling books, avoiding the use of disposals etc.

One year ago the 4th graders made a year calendar dealing with sustainable life style. The profit was used by making a trip to a science centre. Commitment and readiness to act have been seen in the campaign "pick a litter a day"

We also take care of the near surroundings of our school every spring. We have had the celebration of an alternative carnival of First of May (usually it is a lot of littering) . The whole school have had a workshop day, for example playing environmental games or having the local litter company to arrange workshops about sorting and recycling. Last year we had many local associations helping us in arranging "stops" on our nature path. That was a good example of a cooperation with the local community.

An example of social sustainability we have taken part in the hike for UNICEF, helping kids in Jenin to go to school. One Christmas my kids wanted to give their old toys to children in need. When talking with my own students (I've had them from 2nd class and will have them one more year, when they are 6th graders) I can clearly find out the commitment in most of their opinions. They are willing to do sustainable actions even in their homes. Many of them really disapprove the behaviour of some adults. We have had an Indian "good child" for several years. Our new extra target is a school in Bosnia Herzegovina.

WS: Ability to define a problem and to generate solutions (and reflect on the process of generating a solution and the ability to change the solution): all last-year teacher students are involved in a thematic project that includes sustainability aspects. The dynamic learning qualities enumerated are the main objective of the project.

CN: Teachers are more aware of the values we must consider in our teaching.

Students become more and more critical with what happens at school.

With the Environmental Education and Education for Sustainability as a main line in the school project the staff can analyse and reflect which can be the changes in our school and how we can go to this school development.

5. Are you aware of any changes that have been made to school/teacher education curriculum since participating in SEED? If yes, what are these changes?

FM: As we, among other things, are an teacher education institution the outcome of the above mentioned Comenius 2 programme is expected to get impact the teacher education curriculum at our institution – not only in terms of involving sustainability issues but also in terms of using Action Research as a method for evaluation and further development

AV: No

MH: See number 3. Environmental activities becoming part of our school curriculum. Teacher education has an environmental course in its curriculum. I have noticed that the young teachers are more active and interested and have the knowledge of environmental education.

CN: The school's contents are too divided in subjects and this is a difficulty to organize ways of teaching and learning more global. This global point of view can give more real answers to the complexity of the world. So, in the 1st and 2nd level (13-14 years old students) and in some groups we have reduced the number of teachers in the class; each teacher teaches two subjects. This organization facilitates the possibility of doing more global projects and the coordination between teachers.

6. If no, are there any plans to develop or change the curriculum as a result of participation in SEED?

MM: In any case, in Italy, the participation of such a short and limited project (10 schools, one or 2 institution, from the Italian size) has not the strength to change anything in schools, in teacher education or in curriculum. In an Italian context these questions have no meaning: no real change are visible in Italian schools also with projects with hundred of school and full Ministerial support. Of course a single school can change, what is very difficult to change is the general educational philosophy.

DC: In France, the curricula are national and a school can do any change. Anyway, we can have some space for interdisciplinary projects in which we are promoting ESD. It remains very complicated to change something within the French structure ...

HG: no – in austria we already have a curriculum, that asks us to work together mixing different subjects....link: www.weiz.at/musikhauptschule.htm

AV: No. Hungary is in the process of changing the curricula which had begun before SEED started, so SEED has not affected the curricula itself but the practice of the implementation of the curricula, for example: to integrate action research as a tool for quality development.

MH: In the future we will also have the curriculum "living" and taking care that all teachers are involved.

CN: We have also planned to include for next year the projects we can, between subject's departments, using the process of Action Research to develop the school's methodology.

7. What is your understanding of 'quality criteria'? How is this linked to Environmental Education and Education for Sustainable Development?

MM: In the comparative report we are finishing with Finn Mogensen we have tried to discuss more in depth quality criteria in comparison with quality indicators, looking to different paradigms in evaluation, and to consistency with EE and ESD principles. If you want I can send you the related chapter (10 pages)

FM: A set of quality criteria is an instrument which summarises an *ESD philosophy* (when talking of ESD quality criteria), that must be constructed and accepted jointly by all school stakeholders, and that cannot be considered as a tool for 'quality control', but as an opportunity for 'quality enhancement', open to on going debate in a participatory way. With this view, quality criteria should give orientation and inspiration but should not be confused with 'performance indicators' or the like. In fact, a set of criteria may be considered as a 'translation' of a set of shared values formulated in terms that are more explicit and closer to the practice but not as prescriptive and limited as performance indicators.

DC: During the Barcelona seminar in may, we have had a first presentation of the SEED work about quality criteria in ESD. It appears very interesting and powerful and now we need time to experiment before making any comment !

HG: 'quality criteria' - our work should have sustainability.....if there was a chance to make pupils think and even think different – so we do a good job!!!!!!!

AV: QC are tools for self-reflection and help to identify the goals of school in the area of ESD.

MH: I have the understanding and I have seen the work done in SEED/ENSI. In my opinion there is no need for strict criteria given by others. The most important is how the school has created its own aims. There are so many different ways of being a "green school" or any other. I don't agree in strict qualifications or boundaries. Our environmental plan consists of many different parts and participants. We don't want to be defined by others. The educational change into sustainable school is our aim. We have many coordinators but not one of them can come to define our school (Globe, WWF, SEED, ENSI, 4H,)

CN: The quality criteria (it can be implicit or explicit) helps you to evaluate the quality of a project, an activity, a school plan... and it can be different depending on the school, the country... It helps you to improve the quality of your work.

It's necessary to know what you have really achieved with your teaching practise and your school organization.

8. In what ways has SEED promoted and supported you as an educator and the institution you work in?

MM: My work, and my institution, was highly promoted and supported by SEED: I had the possibility to contribute to several SEED seminars directed to teachers and schools (Reichenau, Frascati, Barcellona, and the next one in Palermo), and it was hard work but also good possibilities to face the reality of intercultural exchanges in Europe. For sure my understanding of intercultural problems in Europe has increased, and I hope also the quality of my training proposals. The Quality criteria work, strongly required by my institution, was presented to an International Audience in Denmark, and the proposal will be translated and printed in several languages. SEED was really an opportunity for doing things difficult to do with no supporting structure. Also if in the future my Institution will not be more interested in participation the work done was presented in the Ministry, Direction for Foreign Affairs, and was highly appreciated.

FM: The programme has supported me in several ways concerning this: working hours, inspirational collaboration with international colleagues, challenging my understanding and conceptualisation of ESD

DC: ??????I am afraid that it created to me more problems than promotion !

HG: I could benefit of the meetings in reichenau and frascati ...sorry, that there was given no money to go to barcelona – I got to know a lot of very "engaged" teachers, we had excellent presentations there.....for me it is a chance to have improvements in personality!!!!!!!!!!!!

AV: SEED gave the opportunity the involvement into international comparative studies and this way show the strengths and weaknesses of our work.

MH: I have been able to attend most of the SEED meetings of workshops (Reichenau, Szeged, Frascati and Barcelona) They have been great opportunities with my "critical friend" (Annukka Alppi from Mahnala School) to reflect the work also done in my own school. Especially in Barcelona I was able to have conversations with other comenius project members and researchers. I finally realized the meaning of action research. I think my institution will benefit from my experiences in the meetings and workshops.

WS: SEED has been of great help to me as it gave me the opportunity to discuss ESD and EE issues with colleagues from different countries and with different types of expertise.

SEED helped me too to develop the CSCT Comenius 2.1 project on 'Competency based curriculum for ESD in initial teacher training and in-service teacher training institutes' as many of the partners within this project have direct or indirect links to the SEED project. Furthermore, CSCT will use aspects that have been developed in SEED.

CN: In the seminars I learn pedagogical strategies and useful methodologies that help me carry on the necessary changes and evolution of my work. In addition to this, I can share experiences with teachers that are motivated in the same way than me and the exchanges we do are very interesting and useful. With all of these experiences I, with a group of teachers, can plan new proposal to go towards the school development that we want to.

SEED is always ready to help and support you in what you need and ask them.

9. What connection do you see between ENSI and SEED?

MM: The real meaning of SEED in Italy was the possibility to continue some of the ENSI experiences and to follow in school, and in my institution, the research developed by ENSI: for me SEED was the operative branch of ENSI.

FM: To me the two bodies are of a piece – SEED makes a frame and covers financially some of the costs connected to working with ENSI 'tasks'

DC: ENSI is a network of members of world wide universities which is developing the SEED project within the Comenius III structure.

AV: SEED is a very effective tool to spread main ideas of ENSI.

MH: I see a very close connection with ENSI and SEED. Our school has also been an ENSI school but it hasn't given anything concrete so far. Being part in Comenius1 and SEED has given us opportunity to act, travel and do things in school I hope ENSI will be more important after SEED. It's also my duty to rise the reputation of ENSI. I hope ENSI people will also do their best to give more weight to ENSI.

WS: Very strong connection as the SEED project is strongly influenced by the ENSI philosophy

CN: Both of them together are a really good group. There is a great understanding between them. They organize and plan activities together and follow the programme in a strict way but they always are open to any suggestion or proposal.

Both of them share the idea that Environmental Education should be the school force to promote a school development and both of them have the same start point: what we do at school and then, from this point, how we can grow. ENSI has a large experience in school innovation and SEED has developed great methodological proposals. Both of them working together have a wide and coherent vision of the School Development through Environmental Education.

Life After SEED: Networking and participation

1. Since your participation in SEED are you more aware of Comenius projects outside your country? What kind of contact do you have with other Comenius projects?

MM: I already answered to many of the following questions: I'm more aware now of the international exchanges difficulties, especially of the fact that these difficulties are often hidden, through a kind of activism coupled with 'fair behaviour' and 'fear of conflicts', and that it would have been more useful to stress contrast and differences to really learn one from the other.

FM: Not more aware

DC: No

HG: yes – at the seed meetings and in the net.

AV: Yes, but not directly NIPE have contacts with the other Comenius projects but the schools NIPE helped to join to Comenius world.

MH: Yes I will definitely be more aware and open to other international projects and networks. We just got information about the GRID-network and I will share the information to others interested.

About the contacts with other Comenius projects I can't tell, yet. It will be seen.

We have applied money for international networking from Finnish national board of education and in that network we have 2 other Comenius schools. The closest contacts we have had and will also have in the future with our own Finnish Project school Mahnala because we are close friends with the teacher (Annukka Alppi).

The only platform for communicating with other projects has been the workshops and meetings in Reichenau, Szeged, Frascati and Barcelona. Especially Barcelona was a great happening and we had lots of conversations concerning EE in our schools and countries. The problems seemed to be very much the same in different countries.

CN: Yes, because I only knew some of the Comenius projects in my area and now I know the projects that started from SEED seminars and in each meeting we can share our work and what we do.

2. How are you exchanging information with other Comenius projects? What kind of information or knowledge are you exchanging?

MM: I was in contact with the other Comenius 3 network engaged in EE: the TEPEE network. The exchange of information was very 'fair' but with not real critique or exchange, may be for time limits we all have.

FM: Through my colleague in the Comenius 2 programme I get often information

DC: No more aware. But I am in touch with another local French school which is in the same Comenius I action in an other group. We belong to an association which has been practicing environmental education for years and we share our experiences namely those done through the SEED seminars. These seminars have been very very useful to the global success of the action: the tools and the reflections developed by the ENSI animators are used and experimented in the different school projects. Research action is a basis of our work.

HG: no, but there is a big amount of exchange in our group – there are 5 partners.....

MH: During our project we have exchanged information, pictures about our joint activities in our web pages and by email. But it has been mostly meant for our own project members. One part of that reporting has been added to SEED pages, Comenius gallery and is therefore open for any other projects.

After SEED I think I will have those pages "living" even though Comenius-project will be over in spring 2006.
(<http://www.peda.net/veraja/valkeakoski/sorrila/comenius1>)

CN: MOTIVATION. How to motivate teachers, pupils and parents in the project and in all the changes we are trying to do.

ACTIVITIES and STRATEGIS. We share activities and we learn new ways to teach and learn than later we can adapt to our school.

DIFFICULTIES. We help each other how to deal with the difficulties we have to face in our work.

REFLECTION. One of the essential parts of the teaching process is the action's reflection. The level of reflection increases when you have to explain what you do, why and what do you want to achieve.

3. Have you created (or participated in) any new networks/groups/partnerships created out of SEED? If yes, please describe these networks.

FM: No

DC: No

AV: Not under the Comenius umbrella, but the 6. Research Framework of EU. You could find details at: www.biohead-citizen.net

MH: Globe project, collecting data on climate and weather, in the curriculum for 4th graders....WWF/Natuerwatch, exploring water, woods and parks by using the Naturewatch activities. Belonging to our school curriculum.....ENSI-schools network was even before Comenius and SEED. It has only been a "nomination" not really much concrete work. Perhaps will be after SEED.....The international network I mentioned in question 1 after SEED.

CN: I visit the SEED website and I participate in the seminars they programme.

4. Are you aware of any partnerships in your school/area/specialism which have been developed during SEED which will continue after September 2005?

FM: Yes, the former mentioned Comenius 2 network

DC: Yes

HG: yes – the city, the environmental officer, barbara kulmer, she did win international awards she is a partner in my project and she supports me.....link: www.weiz.at

AV: The Comenius I and II projects generated by SEED, and the work of ENSI in the field of QC, and action research.

MH: ENSI will continue after SEED and I hope it will be improved, more real work.

Comenius school project will continue till June 2006.

WS: Strong partnership with the department of *nature and environmental education and communication* of the Flemish Ministry of the Environment; a strong cooperation exists between this section and the DVO regarding the quality criteria of 'green schools' and on the implementation scheme of the Decade for ESD.

CN: No

5. What kind of support do these partnerships have? (for example: school / government / university / community)

MM: I think it is too early for speaking of new networks, groups of partnerships. Of course the Ensi network will continue after 2005, and many of the existing Comenius 1 born with SEED will continue. I have the intention to propose, as a SEED follow up, a new national network for ESD schools based on the Quality criteria proposed, but is just one idea to be proposed to the ministry and to the local authorities for support. Next year may be.

DC: local community, region authorities, association

HG: 1) money, to help us; 2) understanding; and 3) a forum to talk on problems and the effects of my comenius group

AV: The Comenius project have EU support, and ENSI has national contributions.

MH: In my school my head teacher and the staff members are supportive, from the beginning of the project the involvement has grown.

The government gives support to Globe and LUMA-projects. The work done for renewal of our national and local curriculum has been supported by the government.

Helsinki and Joensuu Universities have supported my doctoral studies about my school being part of projects in EE and ESD. We have had conversation and knowledge building in Knowledge Forum® pages, supported by professor Mauri Åhlberg.

Local companies (UPM-Kymmene.....) local newspaper and the local/municipal organisations have also been supportive and cooperative.

WS: The 'partnership' between the department of *nature and environmental education and communication* of the Flemish Ministry of the Environment and the DVO offers mutual support with respect to a common policy making regarding ESD in the Flemish Community.

EXTRA COMMENTS

Willy Sleurs DVO is a partner in the SEED network, but it is part of the Department of Education of the Ministry of the Flemish Community. So, it has no direct link to students or teachers; but as DVO is responsible for the development of the final objectives of compulsory education and the basic competences of the novice teachers, there is an indirect influence on school curricula.

Otherwise, DVO closely works together with KHLeuven, a teacher training institute; partly as a result of the SEED project they will change their curricula from next year on; sustainable development will be a key concept in the module 'world orientation'.

Michela Mayer: The situation of my institution is a very peculiar one: our institution changed its mission, about 6 years ago, from a national Centre for International Educational Research (CEDE) to a national centre for the evaluation of the educational system (INVALSI). In this new situation the INVALSI is the responsible for the participation in International Evaluation programmes (as PISA, TIMSS, ALL, SIALS) but has also maintained the participation to some international network (as ENSI or

CIDREE) offering an 'evaluation point of view'. This happened with SEED: the participation was accepted by my institution but mainly because it was on the evaluation 'side': the Quality Criteria research.

This year the situation changed again: the new President is not aware and not interested of this participation, and I'm just now trying to show to him the importance to maintain, as institution, this contact.

Günther Pfaffenwimmer: Please find below the impact from SEED as we (Johannes and I) estimate in Austria:

For the Ministry of Education, Science and Culture, Subdepartment of EE, it was the entering of the Comenius world.

It was the experience of planning and leading an international Comenius 3 network. Without the experience of having head the ENSI secretariat in Austria at the for four years this would have been a much harder task.

It was also the first experience of ENSI in this field.

The staff in the Ministry sub department of EE learned to handle the SEED network, Comenius I contact seminars and ARION study visits, and we got acquainted with the EU structures as well as with the Austrian Socrates National Agency.

It was possible to involve four Austrian partners into SEED.

Austria (i.e. the Ministry of Education) organised two Comenius I contact seminars and one ARION study visit.

Austrian schools were invited into a consistent thematic network by three Comenius I contact seminars (two in Austria, one in Norway) and by the following Action research workshops and thematic conferences.

There was an impact on teacher education stimulating a curriculum development for a train the teacher trainers course on ESD and AR, which was fed into the new Comenius II activity on competencies lead by Belgium/Flanders.

Results of the Austrian teacher training Action research and development activity were presented at the first SEED conference in Szeged/HUNGARY, September 2003 and will be published within SEED.

Articles about contacts with and impressions from other countries, esp. on ECO-schools were published in the magazine "Umwelt und Bildung = Environment and Education".

The Quality Criteria will be used to stimulate and guideline the discussion of performance in Austrian ECO-schools and will also be reflected in the development of the Austrian development of an ESD strategy.

Stimulated by SEED there were contacts and co-operation in the neighbourhood with Switzerland and Slovenia as well as with Korea.

On basis of this positive experience the Austrian Ministry of Education will organise a "preparatory visit" with invitations to a number of also non-ENSI countries to develop a new Comenius 3 network application. (October 6 - 9 2005)

HG: I, Helga Gruber, do have a big problem with the austrian national agency:

I could get money the first year,
then I applied for the second – I got a letter, telling me, that there was the last page missing – I do not know,
why.....

I was not allowed to send it, there was no understanding, no help.....

I even called brussels.....an austrian member of parliament,

christian faul, labour, tried to help me too.

so, that was why I did not get any money for the second year.

this did cause depressions in me,

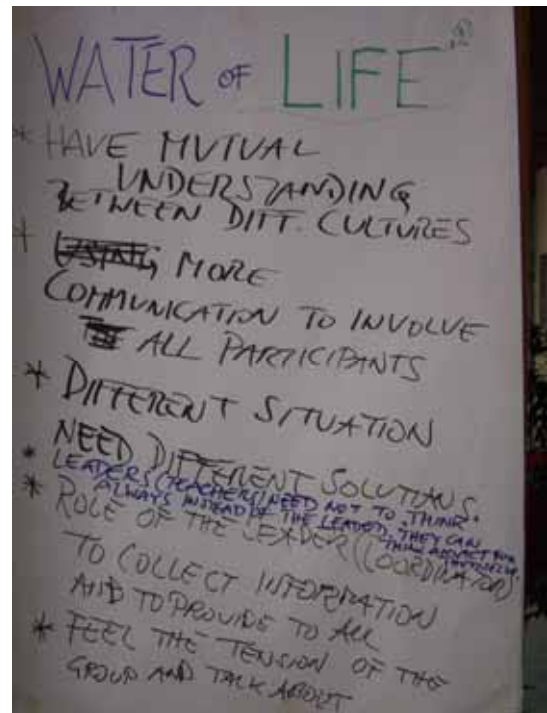
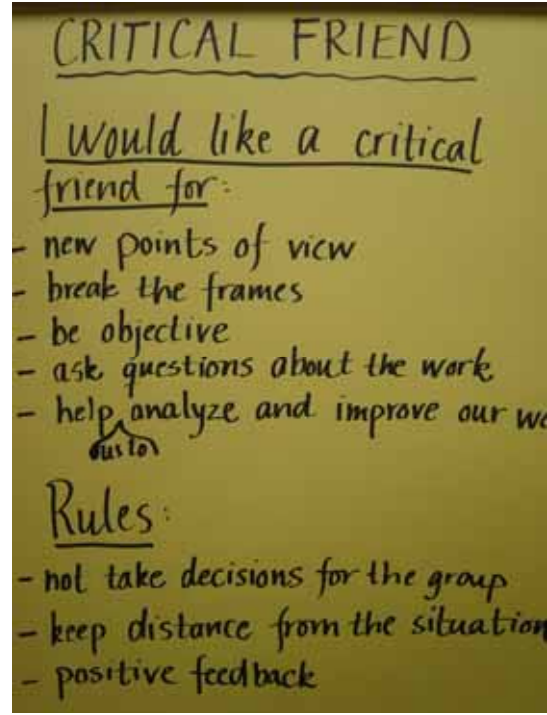
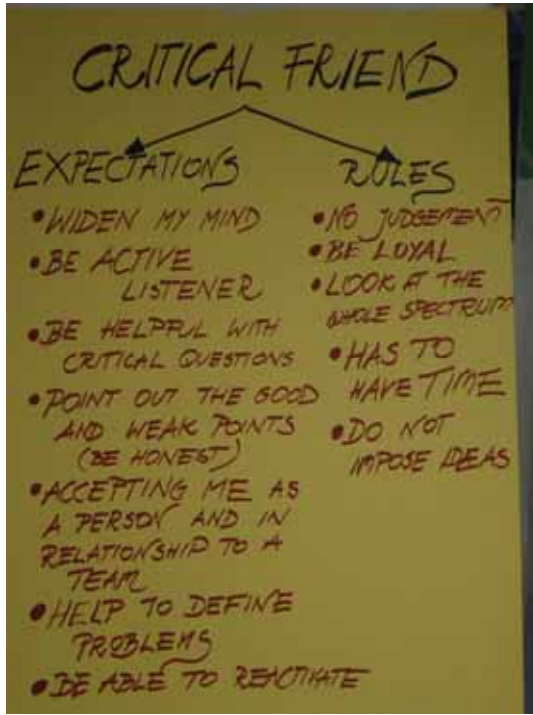
I could not understand, that nobody there looks at our work – because I'm really fond of our work on "Quality in life and at school" (could send you some powerpointpresentations)

well, and I do love communication;.....I like to exchange the work in the group;

We saw, that carmen of spain and nello and sarah from sicily and the austrian team do work similar – so we bring our work digitally to the meetings, because at the meetings there would not be enough time to see everything.....

G. Action Research

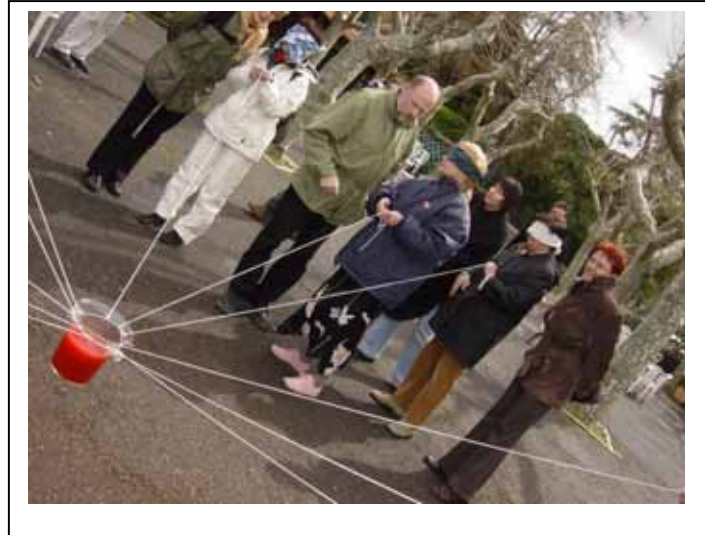
The methods presented, explored and applied in SEED products have been those defined by the authoritative literature and include concepts such as cycles of improvement, critical reflective practice and critical friends



H. Dynamic Qualities

During all the SEED thematic conferences and workshops there were opportunities to engage participants such as shown below. Unfortunately the rationale as to why SEED had organised meeting and seminars in this way was not articulated sufficiently enough for participants to see the link to their own work and how it related to school development.

- Frascati: People participating in the water/bucket exercise.



- Szeged: People participating in school activities.



I. School Development

SLIDES BY FRANZ RAUCH 'Education for Sustainability and School Development' SEED Meeting 25 October 2003. Available at: http://www.schule.at/dl/ENSI_AGM_2004_minutes.doc

J. SEED and ENSI

The connection between SEED and ENSI was made visible during the workshops in Szeged and Frascati. For example the ENSI Network presentation by Michela Mayer. Available at <http://www.ensi.org/?modul=10&folder=30545>.