SUMMARY OF THE NEEDS ANALYSES SURVEY

(by Mária Fűzné Kószó and Hungarian Development Team)

Results of six countries: Germany (GE), Hungary (HU), Norway (NO), Poland (PL), Slovakia (SK) United Kingdom, (UK) has been involved into this summary. In total 501 teachers responded to the survey across Europe.

The majority of the teachers (average: 70.3 %) teach in secondary schools – with the exception of Hungary, where most of them (64%) work in primary schools. In Slovakia only one type of school exists (primary and secondary combined), so they adapted question 1 to their circumstances.

Based on conversations with the teachers and the pupils, the results of the surveys can be summarised in some main points. The results and responses have also been grouped into three categories considering the SWOT analysis: 1. Strengths, 2. Weaknesses/ Barriers, 3. Needs/Support for teachers.

The statistical analysis contains data from 6 countries (GE, HU, NO, SK, UK, PL). The children's responses are in the summary, statistical evaluation was not made.

Strength (these facts will help the Beagle Project to be successful)

- ✓ Most of the schools have access to some areas in their school grounds which can be used for curricular and non-curricular work.
- ✓ Most of the teachers do OCL within their school grounds.
- ✓ Most of the teachers are greatly in favour of OCL and have a desire to do more for the preservation of biodiversity and to work with their classes.
- ✓ 29.4% of the teachers and approximately the same percentage of students answered that they took part in OCL activities 4 – 5 times and 33.6% of the teachers answered that they took part in OCL activities 2– 3 times during an academic year.
- ✓ Teachers have some experience with OCL activities (49.9 %) however, 38.5% of them answered that they do not have any and they would appreciate to learn the ways of investigation of or monitoring the living environment.
- ✓ Teachers strongly disagreed that the investigation of biodiversity is the task of experts or scientists only.
- ✓ Teachers agreed that exploring biodiversity might increase students' interest in biodiversity issues, and would encourage them to act more responsibly towards nature and each other.
- ✓ Teachers (83 %) think that working outside the classroom helps to improve the skills of cooperation and team working.
- ✓ Most schools already take part in different environmental schemes and practically realise activities but would like to do more, especially in the areas of bird feeding,

creating bird habitats, planting trees, developing school educational trails, river cleaning etc.

- ✓ Only some of the teachers mentioned that they have neither the ability nor enough knowledge to run biodiversity courses. This would be a problem if schools that are not committed would like to take part in further work.
- ✓ The majority of the teachers think that appearance in the media is the best way to promote the project, persuade and involve pupils, their parents, school and local authorities in the work.
- ✓ Some of them mentioned that personal contact with experts of the project will help more people to join the project.
- ✓ Most of the teachers were very keen on the fact that this project would be pan-European and that new resources and teaching material would be available.
- ✓ The teachers show interest in the project having online results and on-line and not only on-line support which makes it easier to execute the project and to fit it into the school curriculum.
- ✓ Pupils mostly agreed that they like studying plants and animals in their natural habitat. They would like to collaborate with pupils in other countries.
- ✓ Students were not afraid of dangerous animals, they felt that conservation of biodiversity is important, and they disagree that only experts/environmentalists should be concerned with the conservation of biodiversity.
- ✓ The majority of the pupils express a big interest in participation in OCL activities concerning biodiversity issues.
- ✓ The most interesting issue for students was creating bird-feeding, bird areas, and natural trails.
- ✓ Pupils wanted to exchange experience and gather data at the international level.

Although there are some barriers, most teachers are willing to put time and effort into overcoming them.

Weaknesses/ barriers
(which have to be improved and decreased during the Beagle Project)

- ✓ The biggest barrier that schools have to face a strict core curriculum (68.5 % of the teachers answered this way). The second biggest barrier is that schools have to face their financial situation which does not allow them to do OCL activities to the extent they would wish. (48.1 % of the teachers answered this way).
- ✓ Too large classes.
- ✓ Some of the teachers see problems in working with big groups outside as there are not enough teachers for working with smaller groups. In the United Kingdom, Hungary and Poland it could create financial problems if more than one teacher wanted to go outside with the class, even though this should be necessary.
- ✓ The accomplishment of OCL can be solved only with changing lessons.
- ✓ Few teachers mentioned the low level of interest among students to do extra, not compulsory activities in their free time.
- ✓ Overcoming strict health and safety regulations (in the UK)
- ✓ Important barrier is the lack of time to undertake OCL.

- ✓ There is no appropriate teaching material for biodiversity education (this is an opportunity for BEAGLE).
- ✓ Children's ages are too diverse. The differences among the countries is too large.

Needs/support for teachers
(we have to emphasise this issue during the in-service teacher-training and in the process of development of teaching-aids)

- ✓ Teachers rated firstly the on-line teaching material for OCL (76%) and they rated secondly the in-service teacher training program for monitoring biodiversity (68.6), and they rated in third time the internet consultancy (67.1%) as the most important issues. These would help them organize work with students.
- ✓ Some of them mentioned that not all the schools have appropriate Internet access, at the same time, they consider Internet consultancy as a very effective way of obtaining information on biodiversity.
- ✓ The most helpful support for the teachers would be a list of contact addresses and publications (question 11).
- ✓ They would also appreciate direct cooperation with scientific institutions and personal meetings with experts in biodiversity.
- ✓ Teachers and students need simple, practical guides to identify plants and animals.
- ✓ They need educational material (including electronic versions) with concrete guidelines, data analysis etc.

Detailed data

Name of country	Number of teachers	Number of students
Germany	46	78
Hungary	45	89
Norway	188	62
Poland	32	77
Slovakia	105	175
United Kingdom	85	90
Total	501	571

	Type of school					Age (typical)
	Primary	Secondary	P/S General Curriculum	P/S Special curriculum	Others	
Germany	30,4%	67.3%				12-15
Hungary	64.4 %	26.7%				7-15
Norway	21.8%	78.2%				12-15
Poland	6%	94%				13-15
Slovakia			89.5%	10.5%		7-15
United Kingdom	14.5 %	85.5%				11-15
Average	21.5%	70.3%				10-15

The deviation is so large that it could be a problem for processing teaching material.

Summary of question 3: *(How often over the last year have you taken part in or delivered out of the classroom learning?)* We show the most frequent responses.

Name of country	2 to 3 times	4 to 5 times
Germany	50.0%	17.4%
Hungary	24.4 %	37.8%
Norway	42.0%	24.5%
Poland	43.0%	18.00%
Slovakia	30.5%	41.9%
United Kingdom	35.7%	36.9%
Average	33.6%	29.4%

Summary of question 4: (The following list shows areas that may be found near your school which might be appropriate for investigating biodiversity?) It was possible to tick more answers, we show the most frequent responses.

Name of country	Green area within the school	Local park	Natural habitat
Germany	13.9%	23.1%	27.8%
Hungary	83.7%	81.4%	76.7%
Norway	34%	39.4%	90.4%
Poland	12%	38%	18.3

Slovakia	30.1%	24%	22.4%
United Kingdom	85.4%	53.7%	65.9%
Average	43.2%	43.2%	50.2%

So, it seems to be necessary to decide which area would be the preferable one.

Summary of question 5: *(Does your school face any barriers to OCL?)* We show the most frequent responses that seem to be real barriers, considering some aspects, or barriers.(3+4+5 on likert scale)

Name of country	Financial situation	Lack of time because of strict curriculum	Lack of good projects and teaching materials
Germany	50.0%	77.7%	67.4%
Hungary	53.4%	49.0%	31.0%
Norway	65.9%	52.1%	53.7%
Poland	10.8%	91.5%	5.4%
Slovakia	58.2%	66.0%	60.4%
United Kingdom	50.6%	74.7%	34.2%
Average	48.1%	68.5%	42.0%

Summary of question 6: (Do you have experience in leading practical biodiversity explorations?) We show the most frequent responses.

Name of country	No, but I would like to learn	Yes I do
Germany	19.4%	78.6%
Hungary	66.7%	26.7%
Norway	26.6%	70.2%
Poland	58%	47%
Slovakia	41.1%	34.6%
United Kingdom	19.2%	42.3%
Average	38.5%	49.9%

Summary of question 7: (To support OCL, which of the following would help you?) We show the most frequent responses.(concerning 3+ 4+5 on Likert scale)

Name of country	Online teaching materials for OCL	In-service teacher-training program	Internet consultancy
Germany	79.5%	51.0%	51.5%
Hungary	97.7%	97.8%	82.2%
Norway	80.3%	79.2%	75.0%
Poland	40.6%	50.0 %	56.3%
Slovakia	82.2%	91.8%	76.7%
United Kingdom	76.1%	41.9%	61.1%
Average	76.0%	68.6%	67.1%

Summary of question 8: *(In your view, what benefits do you feel that investigating through OCL can have for pupils?)* We show the most frequent responses. concerning 4+5 on Likert scale)

Name of country	OCL improves the motivation of pupils to protect biodiversity and the environment.	Exploring biodiversity can help students act more responsibly towards nature and each other	Working outside the classroom helps to develop the cooperation and team- working skills of students.
Germany	92.6%	92.1%	95.1%
Hungary	97.7%	97.8%	100.0%
Norway	87.2%	77.6%	80.8%
Poland	75.0%	50.6%	43.2%
Slovakia	83.2%	77%	80.2%
United Kingdom	94.5%	91.7%	98.7%
Sum	88.3%	81.1%	83.0%

Summary of question 9: (Which kind of environmental factors and human actions jeopardize biodiversity? List some examples.) It was an open question. We show the most frequent responses.
We formed 10 categories, which were the most frequent. We also ranked the responses concerning the weight of threats globally and locally. (1: the heaviest problem,…… 10: the weakest problem)

Threats to biodiversity	**Globally**	**Locally**
urban development/industrial development	1	1
climate changes, global warming related CO_2 emissions	2	8
environmental pollution (air/water/soil pollution)	3	2
deforestation	4	6
hobby/sport/hunting problem	5	4
decrease the habitats and agriculture problem	6	5
bad waste management	7	3
population growth (humankind)	8	9
lack of adequate environmental knowledge	9	10
increase of consumerism	10	7

Some of these categories are a bit similar and they perhaps overlap (e.g. decrease of habitats is often caused by urban development). The teachers mentioned the biggest global problems but they didn't write the original problem: the population growth. It seems that they may not be able to see the problems globally.

Summary of question 10: One of the goals of the Beagle is to enhance learning about biodiversity, this could be realised through improving the natural environment within your school. In which of the following action did you participate already, or would consider, doing in your school? (concerning 1+2 on Likert scale)

We show the most frequent responses.

Name of country	Carry out biodiversity survey in your school	Create a small nature trail	Encourage birds through maintaining suitable habitat and providing bird feeders
Germany	89.7%	77.4%	82.3%
Hungary	91.1%	75.5%	88.9%
Norway	92.5%	79.2%	63.8%
Poland	50.0%	48.3%	45.3%
Slovakia	72.9%	83.3%	93.2%
United Kingdom	91.7%	77.1%	86.1%
Sum	81.3%	73.4%	76.6%

Questions 11 and 12 are not appropriate for international status report because they were adopted in different ways and depend on national systems. The responses were too diverse, NO, PL didn't send the results.

Comments

Summarising the results of our survey (501 respondents) we feel that its outcome cannot be considered as general or overall as most of the respondents have already done OCL or are interested in it. Many of schools are connected with field studies centres, forest schools, other NGO-s.