1. DATA OF PROGRAM FOUNDER

1.1. The founder of the teacher training program

Studia Libera Limited Partnership

1.2. Address of program founder

Postcode: | 2 | 0 | 1 | 3 | Town: Pomáz

Street number: 14. Németh László Str.

Phone number: +36 70 451 8700   Fax:

E-mail address   aurel@t-online.hu

1.3. Rating the program founder

X   Company

1.4. Name of the person appointed to negotiate the training program

Surname   Puskás

First name   Aurél

Address

Postcode: | 2 | 0 | 1 | 3 | Town: Pomáz

Street number: 14. Németh László Str.

Phone number: +36 70 451 8700   Fax:

E-mail address aurel@t-online.hu

1.5. The total number of training hours for accreditation: 30

2. DATA RELATING TO THE TRAINING PROGRAM

2.1. Title of the training program

A Research-based, integrated science learning programme package for 8-12-year-old students

2.2. The purpose of the training

The purpose of the training is the participants to gain systematic knowledge about the goals, training plan and teaching tools of the research-based, integrated science learning programme that has been developed by teachers of six European countries, with the assistance of researchers, in the Erasmus+ program framework. Teachers should be able to use the program package's complex teacher and student training tools and evaluation system. They should be able to plan and implement various projects with natural science training thematic through an integrated, experimental approach. The training should enable grade school teachers and professionals to motivate students and deepen their interest in natural sciences. Teachers should be able for the foundation of students' active dedication towards environmental sustainability, offering alternatives to them for specialization and future career choice in this field.

The participants should be key members, multipliers in the application of the program package, and school dissemination.

Teachers should gain experience on the necessity and effectiveness of close co-operation between teachers, specialists and experts during the course of training in the development of natural science skills, knowledge and positive attitudes.

Development of national and international networking, horizontal learning forms, sharing good practice among the teachers developing and implementing the program should be started.

2.3. Target group of the training

Teachers and other workers who would like to apply *„Birds – research based, integrated science learning programme package"*.

More precisely, primary school teachers, teachers who teach any subjects, special educatation teacher, speech therapists, pedagogical assistants, practice instructors, assistant pedagogists, career counsellors teaching and educating 8 to 12-year-old students.

2.4. Terms of entry: College or university degree

- Other terms of entry: Knowledge of the social media and Web2 collaboration opportunities at user level

2.5. The total number of training hours: 30

2.6. Requirements done by the end of the training

The participants

Should know the tools of „Research based, integrated science learning programme package": concept, target system, curriculum, student and teacher training tools, evaluation system.

Should know the pedagogical, social and economic reasons, the Rocard report and main suggestions that led to the renewal of the science education.

Should be able to use the available teaching tools adaptively to teach different subjects and thematic units of natural sciences.

Should be able to report the main national and international sources of information, and digital content, studied during the training to the students taking into consideration the interests of the age group.

Should be able to plan a minimum of 12-lesson project in connection with natural science for the school, to present the results with its final evaluation and to develop pedagogical and organizational procedures to promote the success of the project.

Should be able to make use of the developing schools with good practice experience presented during the training, should be able to indicate certain process and methods in the project plan.

Should know the organizational tasks which are essential for the research-based, integrated science education program package and the needs how to match the resources.

Should know how to imply the new content and activities into the school curriculum.

2.7. Name and description of the final evaluation method acquired in the training, as well as the assessment criteria

Doing the final test: development of a project plan adapted to the school, containing at least 12 study hours, based on the structure of the *„Research based, integrated science learning programme package"*. The centre of the project is the activity of a study group, with the identification of goals, skills, applicable methods, evaluation processes, necessary resources and planned timeline.

The content is at least 10 A/4 sheet. The deadline is 30 days after the training.

Evaluation criteria: introduction of the proportions of the project plan, presentation of the concrete research activity of students, elaboration of motivation tools, pedagogy methods and time management. Selection of topics that reinforce interest in natural sciences, taking into account age group specifications.

2.8. Assigning the type of institution in which the teacher training course is required

Primary School

Secondary School (six and eight-grade institution type)

Student Hostel

It is required for teachers who teach in the 3-6 grades

2.9. Number of people taking part in the training

- Minimum number of the group: **9 persons,** maximum **30 persons.**
- Above the maximum the group must be divided.

3. DETAILED INFORMATION ON THE CONTENT OF THE TRAINING

3.1. **Detailed syllabus of the training** *(3.1.1., 3.1.2., 3.1.3., 3.1.4.)*

3.1.1. Introduction of the program

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
1. Introduction						
1.1 Content of the training, technical information • Thematic groups, targets of the training • Technical information	Presentation: Introduction of the content and organization of the training	Programme guide, PowerPoint to present the contents and methods of the training	Not necessary	Not necessary	0,5	-

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
1.2 Composition of the group, training participants and instructors „Who am I?", „Where am I from?", „What have I brought with me?" Participants' expectations in connection with the training Expectations, worries, offers. Creation of the "Parking lot" sheet	Talk group. Preparation of name card with symbol, individually. Collecting and systematizing expectations-worries-offers-individually. Presenting expectations in different colours of post-it: what are your expectations of the training? what worries do you have? what do you offer for the group? Group work: Sticking the post-its to a wrapping paper, putting the card with the same content onto each other, organising expectations-worries-offers in thematic groups Summery in the whole group	3 colours of post-it, wrapping paper, felt pen, putty glue „Parking lot" empty flip chart sheet is placed on the wall in the room. The purpose of it is to write here the temporarily unanswered questions. At the closing phase, we attempt to find professional answers together.	Not necessary	Not necessary	-	0,5
2. The reason of producing „*Birds – research based, integrated science learning programme package*" and presenting it to the public						

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
2.1 Pedagogy problem that required the development of the program - Participating countries' tradition of teaching natural sciences, in contrast with students' lost interest in this field. Exploring weaknesses and putting them into international context.	Interactive presentation about the history of natural sciences teaching, great results and the main pursuit of the renewal of the program.	PowerPoint presentation, hand-out summary, that includes sources and literature. computer, projector	Not necessary	Not necessary	1.5	-
2.2 The findings formulated in the research conducted by the OECD (the Rocard Report) about the teaching of natural sciences. - The findings of the main problem areas compared with the participants' daily pedagogical practice	Group work from heterogeneous groups. Analyzing and discussing the problem areas identified in the diagnosis of the "Rocard Report" summary adopted by the OECD, describing the main factors. The groups share their personal opinions and evaluate how much their own pedagogical experience are in line with the findings of the research. The views of non-natural science faculty members from their area. The results are summarized by each group on paper and then presented. Every group solve the same task. Summarizing the key phrases, words, concepts on a common poster.	For every group: 3 colours of post-it, wrapping paper, felt pen, putty glue Hand-out summary for every participant, that includes sources and literature	Presentation of the result of the groups (each group)	In groups examining whether there are at least 6 major problem elements. Brief explanation of each unit.	-	1.5

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
2.3 Analysis of the findings formulated in the research conducted by the OECD (the Rocard Report) about the teaching of natural sciences. -Analytical evaluation of the findings of the main problem areas and comparing them to the daily pedagogical practice of the participants	Group work Analyzing the summary text of the "Rocard report" adopted by the OECD. Evaluation of the recommended solutions worked out for the problem areas. The groups share their personal opinions and discuss how their own institutional pedagogical programs and aspirations justify the findings of the research. The views of non-natural science faculty members from their area. The results are summarized by each group on paper and then presented. Every group solve the same task. A summary of the key phrases, words, concepts on a common poster.	For every group: 3 colours of post-it, wrapping paper, felt pen, putty glue Hand-out summary for every participant, that includes sources and literature	Presentation of the result of the groups (each group)	In groups examining whether there are at least 9 developing suggestions. Brief explanation of each unit.		1,5

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
2.4 Explanation of the project Erasmus + 15/100-KA2SE/13509, presentation of its creative community; milestones of development – an overview The pedagogical image of the Icelandic, Polish, Hungarian, German, Romanian and Spanish development institutions, the diagram of the program development process and the outputs of the program.	Interactive presentation with examples released and interpreted by the presenter. Consultation on the different characteristics of pedagogical methodology in each country.	PowerPoint of the presentation, released digital photo and film documentation on some of the institutional workflows. Additional digital source material indicated on PowerPoint. Computer, projector.	Not necessary	Not necessary	1.5	-
3. The pedagogical concept of „Birds – a research-based, integrated science learning programme package „						
3.1 The constructivist theoretical background and the teaching and learning methodology based on it -The features of the Inquiry Based Science Learning (IBSL) - The importance of The Inquiry Based Science Learning-Teaching on a basic level of the education	Interactive,synoptistic presentation	PowerPoint of the presentation, computer, projector.	Not necessary	Not necessary	1	-

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
3.2 The Inquiry Based Science Learning (IBSL) context • Characteristics of the constructivist learning theory • Steps in the learning process • Hypothesis creation, typical question types	Group work Deeper knowledge and synthesis of the concept and the methodology based on source texts with expert mosaic method. Three text units, three expert groups and then six small groups integrating the results of their work. Creating and presenting a common outline for the whole group.	Three different hand-out summary (for every participant in each expert group) that includes sources and literature, wrapping paper, felt pen, putty glue, laptop	Presentation of the result of the groups (each group)	Examining whether there are three experts group'sugge stions in the summary.	-	2
3.3 Skill development aims, measuring methods,evaluation of the Inquiry Based Science Learning (IBSL) • Scientific experimental skills • Cognitive skills • 21-st century skills • Scientific literacy • Assessment methods	Group work Deeper knowledge and summary of the skill development target system based on source texts with expert mosaic method. Five text units, five expert groups, and five small groups integrating the results of their work. Creating a common outline for the whole group.	Five different hand-out summary (for every participant in each expert group) that includes sources and literature, wrapping paper, felt pen, putty glue, laptop	Presentation of the result of the groups (each group)	Examination of the five experts groups' statements are built up in the summary or not		1.5

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
3.4 Structural elements and supports system of the competence based educational program package. Structural elements and supports system of the competence based educational program package.	Interactive presentation: PowerPoint from lecture material, computer, projector. Presenting the interconnected structural elements of the program package and the connections and relationship between them.	PowerPoint from lecture material, computer, projector. Diagram showing the structural elements of the program package and their connections. Teacher and Student tools (worksheets, testing and measuring instruments, etc.)per groups	Not necessary	Not necessary	1	
4. Understanding of the „Birds - research-based, integrated science learning programme package" project plan						
4.1 „Birds - research-based, integrated science learning programme package" project plan in 24 lessons Bird monitoring and research scope commonly used by the development institutions of the six countries.	Interactive presentation	PowerPoint of the presentation, computer, projector. Project template that includes the thematic aspects of bird observation.	Not necessary	Not necessary	0.5	-

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
4.2 Analyzing the topics in terms of subject integration • Tracking the subject integration in the content units of bird observation and research built on each other. • Identifying, isolating and organizing the knowledge of each course. • Investigate which unit allows the processing of the knowledge of a study subject at a subject concentration.	Group work The collection of separate subject parts within the integrated thematic units is carried out by a specific group of experts based on the source text and with an expert mosaic method. The expert groups are specialists in physics, chemistry, biology, geography, arts, media/information technology. The results of their collection work are summed up in their original groups. These groups draw a graph showing the context of the subject structure and then presenting the graph to the entire group.	A project template for every participant, which also includes the thematic aspect of bird observation. Wrapping paper, felt pen, putty glue, laptop	Presentation of the result of the groups (each group)	Examination of the six experts groups' statements are built up in the summary or not		1.5
4.3 The review and using of the pedagogy criteria of the project plan during the leading of the courses	Interactive presentation	PowerPoint based on the lecture, computer, projector. Project templates for participants, which contains the criteria of the bird observation.	Not necessary	Not necessary	0.5	-

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
4.4 Fieldwork **Completing the fieldwork described by the project plan** To make observations based on a research sheet, in a natural environment similar to the one checked by the developer institute To apply the tools developed for the students and the educators e.g. departure places of the bird migration,estimated population nests, nesting places recognition of typical bird sounds	During the fieldwork, the participants make documented observations in a near-by natural environment, imitating the work with the students We must keep in mind two aspects: • to apply the observational criteria of the project plan prepared for the students by filling the research sheet • to pay attention to the instructions, recommendations and the aspects of evaluation prepared for the educators in the project plan	project template, which includes instruction, recommendations and evaluation aspects for the teachers regarding the fieldwork. A student's research paper, including the observation criteria. One telescope for every ten participants. Camera with zoom lens. Clothing suitable for fieldwork.	Not necessary	Not necessary		5

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
4.4. Sharing the experience of the fieldwork Operation of the methodological tool system of research-based science education, based on the field work module.	Teamwork People in groups of 3-6 use the data recorded on the research sheets to sum up the operation of the methodological tool system of research-based science education as presented here, based on the field work module. Their results and doubts are summarized on a flip-chart page and presented to the other groups.	Participant's guide: a distributed project, which includes the thematic criteria of bird observation. The research sheet prepared for students and used by participants during the fieldwork. Wrapping paper, felt pen, putty glue, laptop.	Presentation of the summary to the whole group made by small groups	Are the relevant observations appear in the presentations that summarize experiences?		1
5. Possibilities of the programme package usage in the participating countries,planing of the adaptation						

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
5.1 Exchange of views about the student and teacher toolkits of the curriculum. **Sharing information on the possibilities of fitting the framework curriculum and adapting opportunities of the participating schools** - Viewpoint of the applicability regarding the pedagogy, attitude and resource	People working in groups of 2-3, based on the participants' institutional affiliation, type of their institution and on the educated age group. Viewpoints: How will we adapt the program in our school? What kind of education organizing, competence and resource barriers do we see in case of our school? What kind of change in the attitude do the transforming routines of the teachers' community require and how can this be promoted? What can be the direction of development, who can be the assisting partners? A facilitated exchange of ideas and solutions.	Draft of the possibilities and levels of curricular adaptation in written form.	Not necessary	Not necessary		1.5

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
5.2 The communication of the IBSL pedagogical methodology and work, focused on the specific institutions of the participants: • the required close team work regarding the project training and its issues regarding the education organizing • methodology, ways of motivation and evaluation • steps to develop a teacher community and leadership engagement • ways to involve civil organizations, parents, maintainers, local governments and other partners	Group work. The groups work in parallel. They expand the four aspects and write their agreed experiences and suggestions on post-its. Each group puts its post-its on the four common surfaces of the big group. Using the facilitator, they merge the same findings and proposals and summarized them on the wrapping paper.	Participant's guide: standpoints for the collection of the suggestions, post it, wrapping paper, felt pen, putty glue	Not necessary	Not necessary	-	1
5.3 The criteria and methodology of the exchange of the best practices - lecture The mentor role of transferring institution Human and technical resources of the receiving institution Comparision of natural environment, handling differences The paste into the pedagogical programme	Interactive presentation	PowerPoint, as well as hand-outs about the sharing criteria of the good practices applied during the public education developmental projects	Not necessary	Not necessary	0.5	

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
5.4 Presentation of the good practice of one of the schools developing the program about organizing student activities, developing conditions for close cooperation between teacher teams, the method of evaluation, the paste of the IBSL methodology into the local programme	The good practice of the school, which develops the program, is presented by a teacher's representative through a consultative lecture, media content and written summary, followed by an exchange of views.	PowerPoint, hand-out, film, digital photo album	Not necessary	Not necessary	1	0.5
5.5 Design practice: Steps of preparing a project plan draft focusing on the nature of the participant's institute Practical usage of the „Birds - research-based, integrated science learning programme package" project planner template.	Teamwork: Designing a project of a constructed implementation institution at first reading. A project plan prepared at group level based on the template. The topic may differ from the one in the "Birds-Research-based, integrated science learning program package", but the provided template must be followed regarding its pedagogical methodology, motivation and evaluation system.	The template published for the project plan. Flip chart paper, felt pen, post it, as well as the documentation published during the lectures and tasks of the training; hand-outs, PowerPoint presentations. Laptop, projector, participant's book.	Presentation of the prepared project plans in front of the whole group	Do the contents worked out for the key fields of the project template appear during the design and then its result?		3.5
5.6 Ways of networking regarding the educators and the institutes, international dimensions, the info-communicational background of the sharing of the knowledge Web 2 collaborative surface, ways of content sharing.	Study of the Web 2 collaborative surface. Practising the ways of content sharing, collecting the titles.	Internet access, at least six laptops, projector, projection screen	Not necessary	Not necessary	-	0.5

1. column Introducing the thematic units of the training; part-themes, sub-themes; representing the brief content of the smallest thematic unit	2. column Designation and brief description of the methods, forms and activities of the relevant thematic units	3. column Learning materials, teaching materials aids, teaching aids, other teaching materials regarding the content	Checking - evaluation by thematic unit (if it is necessary)		The number of lessons and 45-minute long work forms	
			4. column The way of evaluation	5. column The aspects of evaluation	6. column Theory	7. column Practice
6. The closing of the training **What's been done, answering open questions.** - The scale of the fulfilment of the expectations, the fears and the offerings collected at the beginning of the training	„Visiting the exhibition" – the review of the processed subjects, answering the opened questions of the "Parking lot" Then the group sits down in a circle and the participants summarize the scale in which their expectations and offerings were met and the fears that might have occurred	The expectations, the fears and the offerings collected at the beginning of the training, the completed work documents on the walls, the possible questions of the "Parking lot"	Not necessary	Not necessary	-	0.5
					8 hours	22 hours
					30 hours	

4. FORMAL REQUIREMENTS OF THE FULFILMENT OF THE TRAINING

Participation in 90 % of training lessons.
A final test consisting of at least 10 A/4 sheet should be submitted or sent electronically in 30 days after the training
Participation in teamwork, innovation tasks and preparation of presentations.
Development of the printed, photographed digital portfolio of the training, partly with ring dossier

5.1 Objective and infrastructural basic conditions and description of information deliveries

1 projector, projection screen, flipchart or board.
1 telescope and 1 camera with zoom lens for every 10 participants.

5.2 Description of information basic conditions

At least 6 computers for Power Point presentation, internet access to operate computers

5.3 Description of the training venue and basic equipment

There is a need for a room having enough space for 32 people and enough wall surface for displaying posters, works made by participants and it should be suitable for projecting. Furniture: It should be furnished with at least 6 tables for working in groups consisting of 3-6 people and at least 32 chairs.

The surroundings of the venue should be similar to the natural environment found by the project developing institutions in one of the fieldwork venues

5.4. Tools, additional materials and learning materials which is provided by the trainer for the participant

Documentation of the researched-based, integrated science learning programme package developed by schools of six European countries in the Erasmus+program framework.

Teacher and student training tools, the project plan. Power Point presentations and other presentations, written material suitable for group work, refetrences to internet websites, teaching and educational films. Attendance lists, guide for trainers, satisfaction questionnaires for every participant and an additional material with the content elements in the 3. column of the detailed programme. Wrapping paper, felt pens, post-it in 3 different colours, putty glue. One ring dossier for every participant to keep the listener's portfolio with increasing content.

6. OBLIGATIONS AND ACTIVITIES OF QUALITY ASSURANCE

6.1 Information written below must be collected regularly from the participants:

- the participants' opinion of the project content (if the goals have been completed, the project content has been suitable for the requirements),
- to what extent the knowledge obtained during the training is new
- how the practical usefulness of the training is judged
- to what extent the educational methods applied during the training have been suitable
- if the requirements expected in the training can be carried out
- if the way of checking the knowledge is adequate
- how the trainers' and facilitators' work and expertise are evaluated by the participants
- if the objective conditions are suitable (general conditions, tools, additional material, literature)

6.2   Correcting and modifying the programme according to the participants', trainers' and facilitators' feedbacks

 The founder of the programme will evaluate it in 30 days after the feedbacks according to the following things:

Participants' feedback sheet – according to 6.1 point.
After the completed training the trainers' written feedbacks, self-evaluation that include the following questions beside the things mentioned in 6.1 point:
What was the listeners' relationship to the training like?
Was it possible to involve them in work and make them active?
Was it possible to utilize the listeners' practical experience during the training?
Were recent educational political, professional questions mentioned in the training?
Were any special demand regarding the given theme mentioned?
Was it possible to keep the time division?
Were any conflict situations formed in the training?
Were the objective environment, technical conditions suitable?
To sum up, have the goals of the training been completed?
Which programme element was the most successful? What should be done in another way next time?
Other notices, suggestions and summary of checking portfolios.

If it is necessary, the founder of the training starts a developing activity and infprm all the trainers and facilitators about it.

The founder arranges the changes of the professional experience for trainers and facilitators every year. He has the right to visit the trainings, have a look at final tests.

7. Literature recommended to participants

Author	Title	Year	Place	Publisher
Rocard, M., Csermely P., Jorde, D., Lenzen, D., Walberg-Henriksson, H. és Hemmo, V.	*Science education NOW: A renewed pedagogy for the future of Europe.*	2007	Brüsszel	European Commission

8. Determination of personal conditions required to complete the whole programme
(regarding one curriculum unit) :

Names of the thematical units described in the detailed programme	Performers,course-leaders					Other helpers	
	Qualification	Faculty	Special field /Skills	Practical experience	Tasks in the training	Other helpers' faculty	Other helpers' tasks
1 Introduction	College and/ or university	Pedagogues	Research-based, science education, project pedagogy	Five-year teaching experience in public educational institution, two-year adult teacing experience	Performing lectures, managing practices	Not necessary	Not necessary
2. The purpose of preparing the researched-based, integrated science learning programme package and introduction of the creating team	College and/ or university	Pedagogues	Research-based, science education, project pedagogy	Five-year teaching experience in public educational institution, two-year adult teacing experience	Performing lectures, managing practices	Not necessary	Not necessary
3. The pedagogical concept of the „Birds-researched-based, integrated science learning programme package"	College and/ or university	Pedagogues	Research-based, science education, project pedagogy	Five-year teaching experience in public educational institution, two-year adult teacing experience	Performing lectures, managing practices	Not necessary	Not necessary
4. The project plan of the „Birds- researched-based, integrated science learning programme package	College and/ or university	Pedagogues	Research-based, science education, project pedagogy	Five-year teaching experience in public educational institution, two-year adult teacing experience	Performing lectures, managing practices	For 4.2., 4.5 themes: biology or geography teachers and/or ornithologist	Managing fieldwork

5. Ways of application of the programme package in the participants' institutions.	College and/ or university	Pedagogues	Research-based, science education, project pedagogy	Five-year teaching experience in public educational institution, two-year adult teacing experience	Performing lectures, managing practices	Not necessary	Not necessary
6. What has been done? Answering open questions. The fulfilment of the expectations, the fears and the offers collected at the beginning of the training	College and/ or university	Pedagogues	Research-based, science education, project pedagogy	Five-year teaching experience in public educational institution, two-year adult teacing experience	Performing lectures, managing practices	Not necessary	Not necessary

9. Short summarizing introduction of the training

Launching this training is justified because the present teacher-training does not provide the necessary base for the practice of the researched-based, science school education. This training makes the participants possible to get to know *the researched-based, integrated science learning programme package* and its study tool system that *has* been developed by teachers of six European countries' schools with the assistance of researchers, in the Erasmus+ program framework.

The integrated approach of sciences in the learning process of 8-12-year-olds is particularly important in order to avoid disinterest and antipathy towards science subjects int he early school years. (Rocard report). The programme package, which will be studied during the training, is based on the inquiry based science learning methods (Inquiry Based Science Learning - IBSL). This methodology provides more motivated learning atmosphere in a deeper cognitive process and it will be used for talent development. It explores the natural world's logical unity for children, and students gain experience through research activities which lead to the incorporation of scientific thinking process and development of basic competences.

The participants' pedagogy portfolio will be enriched by getting to know the study tools, the evaluation procedures, study organizing methodology of the programme package and studying the best practices and working on similar innovative planning in heterogen groups.

The expected participants of the training are the teachers, pedagogues, special education teachers, speech therapists, pedagogue assistants, practice instructors, assistant pedagogues and career counsellors working with 8-12-year-old students.

Beside the exchange of information, source and presentations, we will deliberately use the form of debate, exchange of thoughts and cooperative training processes during the training. We will have the opportunity to study the best practices of the developing schools then participate in the fieldwork on the training site.

Mainly the individual and group activities utilizing new information will ensure the fulfilment of the requirements. Proportion of them is 73%.

Conditions for issuing the certificate:

Participation in 90 % of training lessons and the final test submitted in 30 days after the training