



Guideline
to

Support of pupils' participation in Eco-Schools programme

TEXTVERSION

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Advice: *cursiv printed* see more information on website.

Preface

Foundation for Environmental Education (FEE) has existed for more 20 years and nowadays it unifies non-governmental organizations (MVO) from 65 countries in a worldwide network. All members are aiming at environmental education or *Education for sustainable development*. The FEE has implemented its big educational project, "Eco-Schools" certification programme for more than 15 years. It has been implemented in almost 50 countries under common criteria and it aims at planning and practising of responsible acting in terms of Agenda 21. This network work led to a bilateral project "Eco-Schools – environmental management with pupils' participation" between the Slovak Centrum etickej a environmentálnej výchovy ŽIVICA (CEEV Živica) and Deutsche Gesellschaft für Umwelterziehung e.V. (DGU). The guideline at hand was elaborated within the project. It is aimed at both schools participating in certification programme Eco-Schools and newcomers. It offers instructions how *participation of pupils*¹ can be supported and it wants to motivate teachers to involve pupils as well as whole school community in implementation of plans and projects actively.

Several hundreds of schools are certified with the "green flag" and the attribute of "Zelená škola" or "Internationale Agenda 21-Schule" annually in both countries. Every school year the schools face up the requirements again and contribute to a continuous improvement process in terms of Agenda 21 and quality development of schooling and school life.

In Slovakia and in Germany pupils' responsibility, pupils' involvement and independent learning refers to a significant element of school development. Nevertheless, participation of pupils is described as deficit; it is often taught frontally at schools or there is still prevailing traditional roles allocation between a teacher and a pupil. The interactive guideline at hand addresses to teachers and pedagogues who are active in the area of education for sustainable development and want to contribute to school development from democratic and ecological viewpoint. Self-determination, involvement and acceptance of responsibility refer to significant elements of school development or sustainable school.

The guideline is available in Slovak, German and English language. It emphasizes the significance of this project for international level of the Eco-Schools Programme and FEE member countries. You are invited to use the help available.

In Germany the "Eco-Schools – Environmental management with Pupils' Participation" project was certified as UN-Decade-Project.

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¹ Denotations of persons and jobs always include both female and male persons.

1. Introduction

1.1 International Eco-Schools Programme

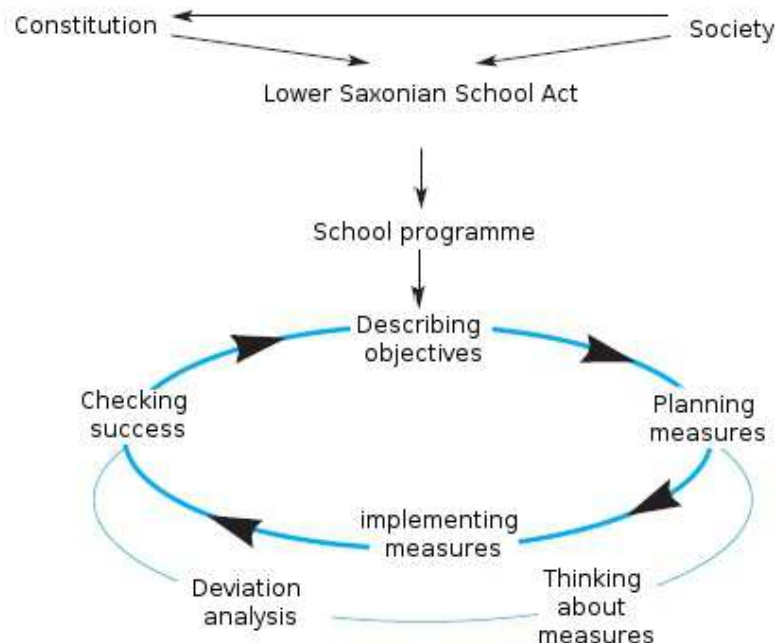
More than 170 countries of the world agreed on an agenda for 21st century at the United Nations conference on environment and development (UNCED) in June 1992 in Rio de Janeiro. The Agenda 21 formulates necessary measures related to *sustainable development* from ecological, economic and social viewpoints and with global and inter-generation approach. Decisive key role was awarded to children and youth. In 1994 “Eco-Schools” were established as European campaign of the Foundation for Environmental Education in Europe (FEEE) and it has been developed further into an international campaign in recent years. Almost all European states and worldwide countries like Canada, Brazil, Chile, several Caribbean states, New Zealand, Morocco, South-African Republic, Japan and China have participated in the certification programme in the meantime. More than 20.000 educational facilities worldwide have been certified till now. The concept contains planning and practising of responsible acting in terms of Agenda 21 and it is understood as contribution to quality development of schooling and school life. (See also www.eco-schools.org).

From the beginning Eco-Schools has been a programme that initiated continuous improvement process at the school in terms of Agenda 21. In the course of years the certification programme has been developed into an excellent instrument in order to initiate, promote and finally integrate the quality development at school permanently.

1.2 Quality development at the school

Increasingly higher significance has been assigned to quality development at school for quite a few years. It refers to all areas of schooling and school life and it is connected with understanding of education in terms of *education for sustainable development*. *Participation* of learning and working members of school community is an integral part of the understanding of quality development.

In Germany Ministries of Education provide for example “Orientation Framework for School Quality” to schools in order to support their development. There are various quality areas stated and named in such orientation frameworks. Following belongs to the quality areas: “School’s own curriculum, teaching, performance evaluation, evaluation of lessons, supportive concepts, consulting and support, organization of schooling, participation of pupils and parents” (Hamburg model), as well as “outcomes and successes, learning and teaching, school culture, school management, teachers’ professionalism, objectives and strategies of school development” (Lower Saxony model). Quality areas provide schools with orientation and reference points for their qualitative further development. They proceed within their quality development for example pursuant to “steering cycle in the school”.



(Source: Niedersächsisches Kultusministerium (Hrsg.) (2006): Der Orientierungsrahmen Schulqualität in Niedersachsen, Hannover, p. 10)

Quoting from instructions for work with orientation framework inter alia (page 10): “It is recommended to a school that wants to improve quality of its work systematically by all means for the first time to restrict itself first to a few topics (considering the circumstances even to one topic) that “prey on their minds”, teachers are interested the most in and at the same time can be processed successfully within a manageable period”. At an interval of several years quality development at school shall be reviewed and evaluated by a school inspection appointed solely for that purpose.

1.3 Internationale Agenda 21-Schule (INA) certification programme

International certification programme had been developed continuously further in parallel with the processes stated above. For example in German contribution “Internationale Agenda 21-Schule (INA)” – referring to the international tender “Eco-Schools” - following eight quality areas have been developed since 2006 as a base of the certification programme:

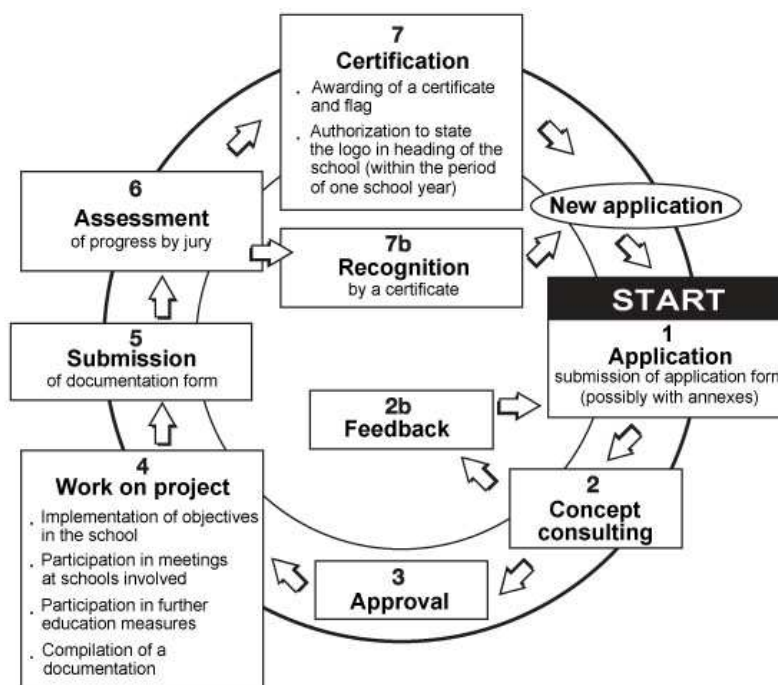
- School life / participation
- Resources
- Schooling
- Competences
- Cooperation relations / world partnerships
- General principles
- School management
- Female / male co-workers / further education

The certification programme proposes to schools that want to improve their quality for longer periods and consider *education for sustainable development* to be a significant focus of their profile seven steps as follows:

1. Establishment of the Eco-Schools Committee
2. Environmental review
3. Action plan
4. Monitoring and evaluation
5. Curriculum work
6. Informing and involving
7. Eco-code

(see 3. Pupils' participation step by step – The seven steps).

Correspondingly, there is also a steering cycle at school that is repeated from one project period to another always on higher level.



The Internationale Agenda 21-Schule (INA) certification programme is announced every year. Schools take part in it voluntarily. School community must agree with the participation necessarily (e.g. school conference, school board). The school shall decide itself to process certain fields of activity. It shall specify the spheres of activity, targeted objectives and reflect them in the framework of quality areas stated above. In relation to corresponding spheres of activity, objectives within the project period should be formulated concretely, activities set in long-term, behavioural changes should be aimed-at permanently, a lot of groups of school community should be involved, internal and external public should be informed about activities and experience should be embedded into schooling and school life.

School is awarded the certification above connected with a green flag of the international Eco-Schools programme as a visible symbol if it is able to prove appropriate progress in self-selected spheres of activity at the end of project period.

Jury takes decision about it. Based on quality grade (see example of INA-Schulen quality grade) achieved schools may be certified with one star *, two stars ** or three stars ***.

1.4 Quality development at school by the means of the certification programme

Both developments - quality development at school specified by ministries of education and Internationale Agenda 21-Schule (INA) certification programme that schools participate voluntarily in – have similar goals referring to qualitative further development of the school in quality areas specified above. Furthermore, quality development at school specified by ministries of education includes all areas of schooling and school life from educational, political and didactical viewpoints. As for Internationale Agenda 21-Schule (INA) certification programme, especially aspects of sustainable development and education for sustainable development have priority as for quality development of schooling and school life.

In order to have comparable objective it would be helpful if on one hand ministerial intention “Quality development at school” and Internationale Agenda 21-Schule (INA) certification programme proceeded in their process indicators further consecutively and on the other hand if more and more schools got involved in them. Thus, there would be a chance from the long-term viewpoint to develop Internationale Agenda 21-Schule (INA) certification programme in coordination with ministries of education into a certification instrument for schools.

1.5 Work with the guideline

The guideline is focused especially on support of pupils’ participation in environmental management of the school. *Seven steps* for continuous improvement process shall be stated where on one hand successful *examples of good practice* related to each step shall be introduced and on the other hand

- *Tasks,*
- *Advices related to Informing and involving the school community,*
- *Quality indicators and*
- *recommended methods*

connected with single steps shall be presented. It provides various practical suggestions related to respective management of schooling and school life. Extensive *methodological part* offers participative methods to it that can be used as needed in the process of implementation of seven steps related to support of involvement of school community or especially pupils. Concrete methods are suggested for each step. Of course, user of the guideline may decide himself/herself and choose from collection of methods or to test them himself/herself.

2. Support of pupils’ participation – conditioning pupils to shape the future

Participation of those who learn and work at school is the most important for quality development at school or for support of school culture in terms of *education for sustainable development*.

Central policy of Agenda 21 is to involve preferably all people or groups of people in

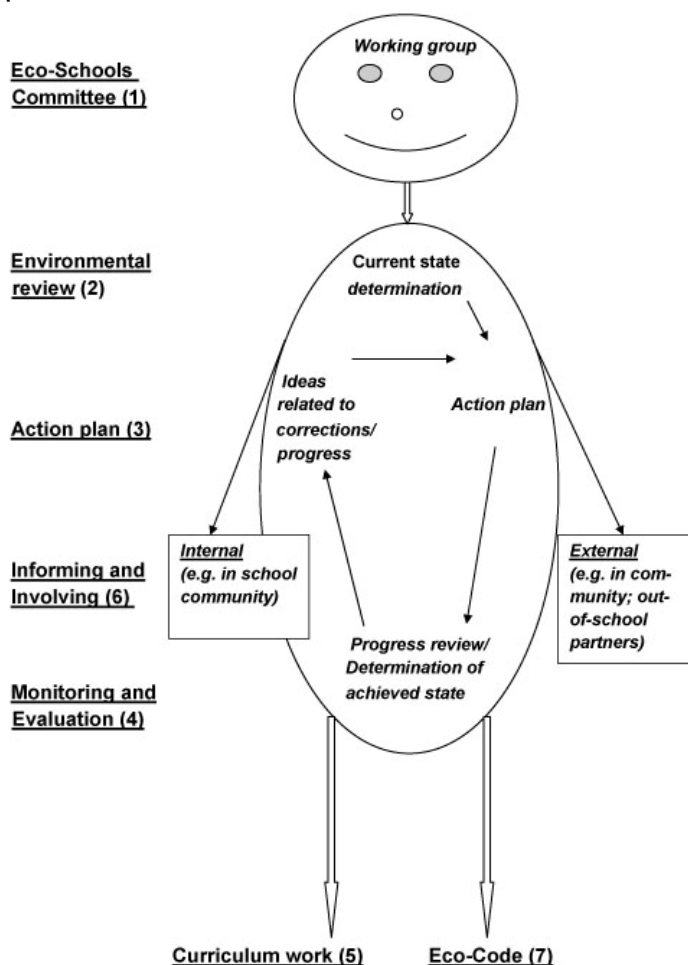
social development. Following is stressed in chapter 25 of the Agenda 21 that relates especially to the group of children and youth: “It is necessary that youth from all over the world participate actively in decision-making processes on all levels relevant for them because it influences their current lives and has impact on their future. Besides its intellectual contribution and its ability to mobilize supporting forces it brings unique views that must be taken into consideration.” (BMU p. 245)

Thus, children and youth must be allowed to participate in social processes actively, i.e. to be able to solve future-relevant problems and to have specific abilities to act. School offers a sheltered space for that where participation may be practised and necessary competences like communication ability, cooperation ability, joined-up thinking, planning competence, reflexion competence may be built by the means of participative learning arrangement. Participation of pupils by participative learning forms and learning methods should always take place in connection with central spheres of activity related to *sustainable development* (like e.g. climate, energy, water, fair trade, biodiversity, healthy nutrition) and is an indispensable precondition of acquirement of competences for responsible shaping of future (see *shaping competence*). Especially rather traditionally oriented schools need some guidance to how pupils may be involved in co-management and co-determination of schooling and school life. Pupils should learn to participate in decision-making in selected areas, to help to shape implementation and in the end to bear the consequences of decision taken. Teachers must learn to endure it and to provide some space for pupils’ participation. This requires changes of organization structure of lessons and school life as well as self-conception of school as for teacher’s role (teaching) and pupil’s role (co-management and co-determination). It is essential to have clear and binding structures, rules, expectations and obligations that shall be stipulated within negotiation process with pupils and that pupils accept responsibility for. (compare: Programm Transfer-21, p. 22 f.)

Schooling forms and teacher’s behaviour and role change with increasing pupils’ participation in planning and shaping of schooling and school life. Teachers should develop competences that enable them both to mediate expert knowledge and to accompany pupils in the process of learning and to organize and moderate their learning processes. Their attitude towards pupils must change. They must be ready to delegate responsibility and to entrust responsibility to them. In this way, pupils may learn to accept joined responsibility for own learning process as well as for the process in respective learning group. Thus, they can acquire communication, cooperation and evaluation competences that are necessary for participation. It has been proved that pupils’ well-being and motivation as well as their willingness to feel joined responsibility was improved significantly by the means of participative teaching culture. Furthermore, school and schooling research studies have confirmed that pupils’ performance is supported by participation in lessons. (compare: to learn and live democracy programme)

3. Pupils' participation step by step – the seven steps

The Internationale Agenda 21-Schule (INA) certification programme supports the school development process for implementation of *education for sustainable development* in schooling and school life. The *seven steps* described below are a verified way how to initiate and advance sustainable development by pupils' participation in terms of continuous improvement process in schooling and school life as well as in local or regional environment of the school. A *questionnaire* designed in the framework of the project offers a good orientation how participation can become a part of the seven steps.



The chart illustrates this continuous improvement process in seven steps that are repeated on a constantly higher quality grade. The description of the seven steps below shall especially document in what way and to what extent participation may be involved in continuous improvement process. Furthermore, besides various examples of good practice, significant objectives and characteristics, tasks, possible informing and involving the school community as well as quality indicators and implementation methods shall be presented for each step.

The school development process should follow the seven steps quite consciously. It has been proved as helpful at the beginning to restrict the continuous improvement

process to selected main points. Based on experience, after a few years schools are ready to form the participative continuous improvement process in the seven steps proposed successfully.

This guideline is focused especially on schools that are at the initial stage as well as on schools that have already had some experience. Users of the guideline are asked to find their convenient way to the seven steps and to use them as needed.

3.1 Eco-Schools for the beginners

A school that has decided to participate in Eco-Schools certification programme should focus its attention on the initial stage (see *Step 1: Establishment of the Eco-Schools Committee*). Foundation of Eco-Schools Committee has a fundamental significance for all further steps and thus for successful work on school development, too.

The committee should be compiled in participative way only and should consist of persons of preferably many different groups of the school community like pupils, teachers, parents, school administration members, janitor, secretariat employees and canteen staff. It means especially that pupils can involve their ideas and proposals too and to help to shape the work of the committee. The committee should be supported (not patronized) by school administration. It is necessary to find motivated co-shapers, to work in teams together, to win parents for cooperation and to be able to draw on technical support (e.g. provided by janitor).

Teachers must initiate such committee, however, to withdraw themselves later and to work as members and supporters of the committee rather than leaders or organizers. At the same time teachers should not start as lone fighters but with two or three colleagues. Furthermore, precondition of a good start is to become familiar with the idea of Eco-Schools as with *participative continuous improvement process* and to realize objectives emerging from it.

A good start is to initiate small projects at the school in order to achieve continuous improvement process in the framework of school development in medium-term. Examples of such projects are as follows:

- Resource saving: energy and water saving project or waste avoidance and waste separation project
- Solar equipments on school roofs: project related to thematization and development of renewable energy resources
- School in motion: project developing classrooms as places of ecological, motion-supporting and health-supporting scopes of design
- Prima food and drinks at the school: project developing delicious and full-value offer of food in a convenient atmosphere (school tuck shop)
- School for vital body of water: project for monitoring and sustainable development of waters close to the school

Initiation of such or a similar project requires a project team consisting of at least two teachers who are supported by school administration and janitor. Project team shall

work the more successfully the more consistently shall be pupils involved in project organization and project design. In the course of project the project team should be developed further to a participative-staffed working group gradually (e.g. Eco-Schools committee) where members from possibly many different groups of school community cooperate. This would correspond with the *first step* in Eco-Schools certification programme. In the course of time the work shall be supplemented with further six steps.

3.2 Eco-Schools for the advanced

The meaning of *quality assurance and quality development in schooling and school life* should be always kept in mind for successful further work by the means of Eco-Schools certification programme and it is necessary to focus on seven steps or points stated in this guideline and relevant for school consistently.

Subsequent positive assessment related to school development made by school inspectors may be assessed as confirmation of the right way to a long-term and systematic institutionalization of participative continuous improvement process in the school.

Step 1 – Establishment of Eco-Schools Committee

Foundation and establishment of Eco-Schools committee as a working group is very important for support of participative processes in schooling and school life. Methodological aspects and motivation work refer to an integral part of Eco-Schools committee establishment. From the methodological viewpoint the Eco-Schools committee should consist of preferably many different groups of school community, e.g. pupils, teachers, parents, school administration, janitor, secretariat, canteen staff. Coordination of the committee in terms of participation should be taken over by teacher in exceptional cases only. Reasonable size of the committee refers to 8-12 persons. Motivation aspects emerge from the examples below.

Good practise

Pupil parliament

A small elementary school has had a *pupil parliament* for a few years where class representatives from all classes meet once a week during long break. The pupil parliament is controlled by a teacher and cooperates with classes and teachers of the school closely. Thus, pupil parliament provides classes with information and demands via class representatives and class representatives bring the feedback back to the pupil parliament. Proposals processed in pupil parliament are submitted to teacher's conference where further actions are agreed. In this way for example all pupils get an opportunity to participate in action plan elaboration. In this school pupil parliament can be also an action group as it is just a small elementary school with 12 classes only.

“Eco-gang” Eco-Schools committee

Eco-gang Eco-School committee was established a few years ago at an elementary and secondary school in order to support environment protection activities at the school more intensively. The committee consists of several pupils, a representative of school administration, a coordinator of environmental projects and environment protection projects one to two teachers, a janitor and a secretary. The Eco-gang Eco-Schools committee is managed by coordinator of environmental projects and environment protection projects and meets once every two weeks after lessons during 7th and 8th class. Management of the committee plans activities and measures, pupils may make comments and are involved in the process of project implementation actively. All members are jointly responsible for successful work of the committee. At the beginning of the school year Eco-gang Eco-Schools committee always introduces its plans and projects to school community. Pupils interested may sign up for co-operation.

Visiting a model school

School conference of a secondary school that wanted to start this way from the beginning took a decision that its delegation should visit a successful school. Their objective was to get some advice related to establishment and model activities of an Eco-Schools committee. The committee consisted of representatives of many different groups of school community that were ready to be active in the school. For the school visit they found a school that has been successful in several interscholastic projects. Thus, the group visited an Eco-School that has been active in the area of energy saving, school premises design and healthy school. The committee at that school provided them with a lot of information related to projects as well as possibilities and problems and presented their results during the visit. At the end the experience and impulses were discussed at the secondary school. They established an Eco-Schools committee and decided to start with an energy saving project. For the secondary school this was an access and starting point to a long-term school development comprising many areas.

Sustainability committee

A sustainability committee has been active in a grammar school for more than ten years. This group was established as a significant management structure for preparation and certification of the school in line with EMAS (Eco-Management and Audit Scheme). The objective of all activities of the sustainability committee is to improve school life and schooling continuously in terms of sustainable development. The main task is especially to make an environmental review and to stipulate strategies and tasks by the means of a binding “Who-does-what-till-when-Programme” (see collection of methods on website). The sustainability committee consists of 20-25 pupils, three teachers as well as school administration and administrative staff. If pupils interested want to cooperate in the committee, they must apply for it. The committee meets once a month, two to three hours. There are invitation cards with agenda and results are noted down in a protocol and communicated. Pupils are involved on all levels, from planning to implementation. They make analyses in self-organized and self-responsible way, evaluate them and present results.

Together in the Eco-School committee

Members of Eco-Schools committee of a grammar school meet regularly - often once a month – in order to confer and improve various items. These items are listed before every meeting, mostly by a teacher. The committee has got relatively much time to process these items. A sitting often takes up to two hours. However, the time is worth because members of the committee, especially pupils, can mediate their interests and opinions to the committee and even assert them, when they present their opinions persuasively. This is the main reason why pupils join this body. In the end, co-management and co-determination are two important aspects in audit (see: *Step 2 Environmental review*).

Voluntary interest clubs in the afternoon

There are various interest clubs (e.g. dancing club, theatre club, environmental club) in the offer of an elementary school. At the beginning of the school year pupils can put their name in a list available in the school lobby and thus, to select an interest club they want to participate. In this way environmentally active pupils teamed up in an interest club called “Environment”. Furthermore, participants of the interest club are members of Eco-Schools action group.

Feedback to Eco-Schools committee by the means of an idea box

There is a paper box in the lobby of an elementary school called “idea box”. All members of school community can formulate their ideas, proposals and critical points related to different plans of the school, e.g. Eco-Schools committee or improvement of environmental situation in writing and to throw them into the idea box. School community is invoked thorough school radio regularly to participate in current matters and plans in this way actively.

Recruitment of members by the means of posters

Two pupils in a school were interested in participation in Eco-Schools programme. They established a small committee and decided to recruit other members. For this purpose they proposed an advertising poster by which they invited other interested pupils to a meeting. In this way a committee consisting of 12 pupils from different classes was established who participate in Eco-Schools programme at the school actively.

Tasks

The Eco-Schools committee plans and evaluates all activities and measures and manages the process in charge. Involvement of school community is very important in the process. The Eco-Schools committee should inform whole school community about their tasks and objectives at various school bodies (inter alia school conference, pupil representation, parent representation, teachers´ conference), in school newspapers, by the means of notices, on the website in order to provide them with information and to get them cooperate. The Eco-Schools committee shall meet regularly and structurally and shall plan process guiding or navigating.

Informing and involving the school community

For the purposes of informing the school community about activities of the Eco-Schools committee it is suitable to draw up minutes from the working meeting. The

information may be passed on to school community via representatives of various school bodies. Another possible way is to inform about current news for example on the black board, in show case, on the website, via notices in classrooms, via *circular letter* or in school magazine. Feedback from school community related to establishment of Eco-Schools committee is desirable. (see for example Feedback board or idea box).

Quality indicators

Eco-Schools committee consists of representatives of preferably many different groups of school community, pupils take part in it on the basis of own motivation and school administration supports the plan. The Eco-Schools committee holds a meeting regularly, has got common rules for cooperation and modalities for result assurance. Eco-Schools committee was confirmed officially by school conference after its establishment.

Methods

Members interested in the committee can be recruited in school bodies, during schooling period or via posters and invitation letters. Another possibility is that pupils interested apply for cooperation in the Eco-Schools committee and are selected by team. Following methods are suitable for motivating the committee, for achieving common objectives and wishful thinking and for getting the first insight what single participants can do and want to do for the plan: “*Wishful thinking / Way to the future*” as well as “*When-then poster*”. Tasks and roles in the group should be specified clearly and unambiguously (furthermore, work with elements from *We-workshop* like for example “*Partner interview*”, “*Looking for jewelleries*” or “*Each hand shall be used*” is suitable here. See collection of methods on website). Tasks can refer to for example managing the committee, keeping of the minutes, informing the school community, public relations or keeping of contacts to out-of-school partners. It should be stipulated who is responsible for which area. Agreeing clear communication ways and communication rules is beneficial for a good cooperation (see “*Reminder*” method). Furthermore, a successful and continuous work shall be supported by regular working meeting.

If a school does not have any good ideas how to launch the process of initiation and establishment of an Eco-Schools committee or Eco-Schools initiative a visit of a good-practice school offers very good stimuli. Another possibility is to invite experts from a good-practice school to own school. Pictures and presentations of good practices help to get some ideas and stimuli for own implementation. Continuous exchange facilitates the work as a wheel needn't to be reinvented again and again and schools can benefit from each other in this way.

Step 2 – Environmental review

Overview of environmental situation as well as ascertainment of sustainable processes in the school including potential cooperation with out-of-school facilities and borough or municipality within local Agenda 21 process belong to environmental review. It is reasonable first to get an overview by the means of school round tour and then to decide whether several areas shall be processed at the same time or be restricted to one or two areas. It is possible to start for example with environmental

review of environment-burdening areas. It can be for example energy consumption or water consumption or appearance of waste. Based on areas selected the environmental situation of the school shall be grasped exemplary. In the course of time the list can be supplemented with other ecological and economic and social areas. Results provide initiatives or they are a base for drawing up of an action plan.

Good practice

Division of labour: Each class shall contribute with its part

In an elementary school all class representatives are also members of the Eco-Schools committee that means that each class is represented in the Eco-Schools committee. For the purpose of environmental review pupils assigned different audit areas to single classes. At the same time they considered that classes may process the environmental review in the framework of normal schooling period. Thus, for example 3rd class pupils spent their time in biology class by developing the area of biodiversity as they have identification plants and animals in their curriculum. On the other hand, 6th class pupils made energy audit in whole school during physics class. In addition to that 6th class pupils calculated percentage data (traffic volume, area of school campus) during mathematics class and evaluated audit results during informatics class. The 4th class made surveys in the area of waters and 5th class in the area of traffic.

Reconnaissance of external school campus (potentially with a landscape gardener)

Environmental review in external school campus should be made on the basis of viewpoints agreed in advance (e.g. area designed for activities like playing, climbing, rolling); rest areas like seats, communication places; green zones like lawns, planting area, pond, hedgerow and traffic areas like access roads, parking places, bike parking racks). In this relation it has been proved as useful to draw up check lists in advance or to gather them from published *checklists* (see collection of methods on website). It may be useful to invite a landscape gardener to the reconnaissance who could be later potentially helpful in rearrangement of external school campus beneficial for school climate. When making the environmental review already first ideas related to better rearrangement may be developed (e.g. unsealing of tarmac areas, more possibilities to sit, deployment of gymnastics apparatus, forming of green areas with domestic trees and shrubs that are beneficial for feeding and nesting of insects and birds). Municipal gardening department is normally competent for rearrangement and care of external school campus so that all plans related to rearrangement should be agreed with municipal gardening department unconditionally. In addition to that it has been proved as practical to discuss respective plan with competent representative of municipal gardening department in presence of committed pupils.

Environmental review: Support by local energy supplier

A local energy supplier approached schools and offered inter alia days of climate protection. This offer was accepted by an integrated elementary and secondary school with pleasure and was visited by an energy expert. Janitor, headmaster and physics teacher participated in reconnaissance of the school. On the basis of check lists the expert made a competent review of energy consumption at the school. At the

end the school was provided with a check list, brochure containing data and advices related to weaknesses and improvement possibilities as well as several energy saving case containing measuring instruments. On the basis of the check lists, brochure and measuring instruments pupils can make their own environmental review.

Environmental review made with participation of school community:

A grammar school has got an Eco-schools committee consisting of 20-25 pupils. The committee makes internal environmental review regularly. The committee elaborated a *questionnaire* for pupils and teachers in order to involve school community in the environmental review. Pupils addressed it to classes and courses of all levels selected according to random principle and to school teachers, too. The questionnaire relates to whole school life. There are questions related to participation in energy saving, possibilities of getting information in the school, school programme and co-management possibilities in school life and schooling in the questionnaire. Evaluation and scheme preparation was done in informatics courses of 9th - 10th class as well as in higher classes. Then results were discussed with respective interview groups. A discussion forum was prepared and moderated by representatives of the Eco-Schools committee.

Survey of electric power consumption made by pupils

At a comprehensive school pupils examined possible saving of power sources in the school. First they made an inspection of the building together with janitor and made a list of all devices spending electric energy. Pupils' attention was attracted by several coffee or tea machines or machines for hot water preparation that were connected to hot water boiler. In some areas the machines were used very rarely, however, water was kept hot constantly. After pupils had proved disproportionately high power consumption by the means of measuring instruments, they suggested to disconnect hot water boiler at respective places. Pupils borrowed the measuring instruments from local electric utility and interposed in many devices spending electric energy. Pupils' attention was attracted by the fact that copiers were spending electric energy day and night, even when they were absolutely off. In the class they suggested this topic and based on instructions they assessed electric energy consumption of all copiers in the school in stand-by mode and calculated it for a calendar year. Another estimation comprising all schools of the city showed principally unnecessary electric energy consumption resulting in financial expenses in the amount of more than one million EUR. As a consequence of that in next public procurement related to leased copiers the senate stipulated that they may spend no electric energy in stand-by mode. Furthermore, pupils were dealing with respective decrease of CO₂ emissions in mathematics and physics classes consistently and they learned the estimation and calculation process necessary for that. The success motivated pupils extraordinarily for research and implementation of further possible saving of electric energy. In the meantime school had a photovoltaic device put on school roof in order to achieve further CO₂ reductions emerging from electric energy consumption. In the school lobby on the display it is possible to read the amount of electric energy acquired from the photovoltaic device and thus to determine the level of clouding. Later on similarity of photovoltaic and photosynthesis became a topic in physics and biology classes what is a nice example, how participative activities can contribute to beneficial changes in school internal curriculum.

Identifying problem area together

An “Environmental group” of a school decided to make a survey in order to find out in which areas corrective measures related to environmental situation must be taken. For this purpose two groups of pupils (consisting of two to three pupils) made a round tour through the school campus, school building and close school surroundings. They made it on different days of week. At next meeting of the “Environmental group” all of them presented problem areas that they had found: ventilation in classrooms, use of rain water in school garden, dripping taps in men toilet, energy supply in the school, school garden, facade greening, bike area, cycle path network, breakfast selling during breaks. Not to start with very complex and rather costly problem areas immediately they launched a small project: “Dripping taps” (*further see Step 3 “Action plan”*).

Tasks

Eco-Schools committee agrees jointly on aspects to be recorded and draws up a questionnaire or check list. Results shall be collected, processes, presented and made available to all school members.

Informing and involving the school community

It is reasonable when school community provides Eco-School committee with proposals related to environmental review. Anyway, Eco-Schools committee should inform school community before the review in what areas the review is going to be made. School community should be informed about results of environmental review in order to launch a discussion process about suitable improvement processes.

Quality indicators

The Eco-Schools committee coordinates environmental review that members of the Eco-School committee and preferably many pupils should be involved in. Results of the review shall be formulated in written form and understandably for everyone and displayed in school building publicly. They are formulated in such a way that it is easy and comprehensible to derive measures for action plan from them (*see Step 3*). The school shall draw up possibilities how to integrate the environmental review in schooling process extensively.

Methods

Questionnaire or check list designed for environmental review either may be processed with pupils or standardized templates may be used. If the Eco-Schools committee draws up the questionnaire itself following methods may be used for selection of areas that are to be assessed: “*Brainstorming / Brainwriting*” or “*Interview forays*”. Subsequently, the committee should discuss what specific aspect should be assessed in the review. Common agreement on the areas that are to be processed preferentially may be achieved for example by the means of “*Point-decision*” method. Based on result a questionnaire or a check list shall be drawn up then. Hints for that may be found in the *check list* in the selection of methods. A model *questionnaire* may be used as a base of work as well. Furthermore, model *action areas in the school* offer a focus on areas to be assessed. Environmental review may be done by the means of check lists on the basis of “*inspection / observation or survey*”.

Step 3 – Action plan

Ascertainment of environmental and sustainability situation leads to formulation of spheres of activity that shall be processed preferentially. The action plan formulates achievable goals, denominates responsibilities and sets indicators and deadlines that make goal achievement revisable. When drawing up an action plan it must be considered to what extent legal issues shall be concerned, what financial and personnel resources are available, what technical help provided by experts must be used, what objectives and plans must be agreed with representatives of municipality and to what extent school administration supports the action plan. The action plan refers to core of the work in Eco-Schools programme and should be drawn up in line with results of environmental review.

Good practise

Together against dripping taps

When reviewing environmental situation of the school, the “environmental group” noticed dripping taps at toilet. To prevent water wasting the environmental group decided to ask the janitor whether he could help them with the problem. They agreed with janitor a fixed date for repair when they could come and help him. By then they looked up information related to costs and use of the latest (water saving) taps and came to conclusion that new taps must be installed: single-lever mixed armature with time limit, cold water tap only or other new technologies. Pupils asked also parents who could help costless. Before taking the first step they informed school administration or they asked for permit. After the “Dripping tap” project had been completed successfully the Eco-Schools committee made a poster comprising pictures, drawings and minutes related to the plan and displayed the result in the school on a place visible for all pupils.

Resource saving by changes of behaviour

At a comprehensive school an Eco-School committee initiated changes of behaviour in order to achieve resource saving at school (energy saving, water saving, waste avoidance). For that purpose an action plan was elaborated addressing all school members and assigning various tasks for preferably successful implementation of the project resource saving at the school. On the date agreed consumption data from last year were disclosed to the authority with janitor’s support. Central official team calculates economic savings of the school at the end of the year and arranges that municipality shall transfer to school a half of saved financial means for absolutely free use. The Eco-Schools committee (not school administration) shall take decision about use of the financial means (e.g. replacement of an old lawnmower for janitor, solar device on school roof, contribution to class fund of each class). The model of economic and ecological resource saving resulting from change of behaviour was immediately after its introduction so successful that municipal office established the initiative and all schools could take part in it principally. Several pupils managed to achieve CO₂ emissions reduction by 10 % on the basis of smart engagement of competent working groups.

Waste avoidance and waste separation action plan

At a junior high school and middle school an Eco-Schools committee comprising many pupils elaborated an action plan related to waste avoidance and waste separation. A few members of the committee were competent for examining the copying process at the school carefully and they were to compel all persons making copies (especially teachers and members of school administration) to use backsides of paper, too, as well as to try to minimize volume of copies. Other members of the Eco-Schools committee initiated use of separated dust bins in each classroom and persuaded cleaning staff to dispose of waste separated in classrooms in such a way that they put them separately into refuse containers. Another partial group put various colourful dust bins on suitable places on the schoolyard so that waste could be collected separately and schoolyard was kept as neat as possible. The committee got a lot of support from school administration and janitor. Finally, they managed to achieve change of behaviour of teachers as well as prevailing number of pupils. Interviews with pupils showed that the project affected even their behaviour at home. By the means of adjustment and reorientation of action plans from one school year to another the school became well-known far beyond its borough because of its success emerging from waste avoidance and waste separation.

Management by objectives: “Who-does-what-till-when-Programme” (Action plan)

A few years ago a school authority introduced annual management by objectives. As they had no participative potential at the beginning (in extreme case school administration formulated management by objectives), they decided to draw up an action plan. In fact, it is nothing else than above but it, however, offers opportunities of pupils’ participation. The “Who-does-what-till-when-Programme” (see collection of methods on website) shall establish binding cores for work that are transparent and can be revised. The programme shall be developed within Eco-Schools committee and communicated with responsible bodies and working groups of the school.

Drawing up the “Who-does-what-till-when-Programme” (Action plan) together with pupils

At a secondary school an action plan was proposed by pupils and leading teacher of Eco-Schools committee. In this relation first they wrote results of environmental review on cards, displayed them on the wall and selected the most important areas. They created small groups dealing with single areas that answered the question: “What must be done in order to improve the situation in selected areas?” When each small group answered the question, results were presented to all. Then they collected ideas for each point how the success shall be measured. They collected suggestions of real deadlines and designated responsible persons for single areas and activities. At the end they built responsible teams for each area that were to be organized independently.

Designing the school (external) campus

A few years ago an Eco-Schools committee consisting of committed teachers designed for new designing of school campus was established at a comprehensive school. School administration released the committee from teaching for a day so that they could implement their plan. The objective was to involve whole school community. School newspapers was issued for this purpose where their plan was

explained and it was distributed to all member of school community free of charge. There were two silhouettes of leaves with lines for writing drawn on the back side cover made of green carton. The silhouettes of leaves were supposed to be cut out and proposals for designing of school campus were supposed to be written there. Tree silhouettes made of wood were placed in the school lobby. Members of school community, especially pupils were supposed to attach their proposals there. Thus, the trees got green from leaves cut out. The Eco-Schools committee evaluated the proposals during two afternoons and put them into different categories. Finally, single proposals were given to respective classes and teachers. The list of classes and teachers as well as procedure related to preparation of whole project week for designing of school campus was published in next school newspapers. During preparation period up to the project week pupils were placed to a procedure and a teacher they preferred and based on that a simplified action plan for the project week was developed.

Tasks

The Eco-Schools committee should make sure that concrete and manageable tasks and work units are stipulated and assigned to members according to their interests. In connection to that committee formulated action plan procedures that are specific, measurable, attractive, realistic and achievable from the viewpoint of time.

Informing and involving the school community

Cooperation of Eco-Schools committee and wide group of school community may be used for action plan implementation. There should be a permanent coordination and continuous exchange of persons involved in the implementation. School community should be informed about progress of action plan implementation all the time (inter alia by the means of school bodies, school website). It is reasonable to hang out the action plan in school building on an elevated place – possibly in all classrooms – so that it could serve as a base for the Eco-Schools committee and for other members of school community. In order to involve other members of school community in the work it is suitable to present results and possibly to win other teachers, pupils and parents for participation or takeover of tasks.

Quality indicators

Action plan shall be formulated viably and in small steps. Goals set shall be realistic and visible or measurable and tasks shall correspond with actors' competences. Besides pupils and teachers there are also other members of school community and possibly also out-of-school partners involved in the action plan. The action plan shall be submitted to school community for discussion asking them for feedback. School shall elaborate possibilities of extensive integration of action plan into teaching process.

Methods

For elaboration of action plan it is recommended to observe certain basic principles and structures and to answer the question: "Who makes what till when?" A *model action plan* offers a good orientation for elaboration of a "*Who-does-what-till-when-Programme*" (see collection of methods on website).

For filling the action plan with contents it is recommended to write results of

environmental review on cards, to score priorities (see “*Point-decision*” method) and to process areas considered to be the most important. Then groups for single areas shall be established and *Brainstorming* and *Brainwriting* to the question “What must be done in order to improve the situation related to single areas?” shall be done (see also method “*Work in small groups*”). Then groups shall collect ideas together and determine how success shall be measured, what realistic deadlines must be met and who shall be responsible and for what area or activities. As big part of school community should participate as possible. Finally, teams responsible for single areas shall be created and they should organize themselves independently. For proposing an action strategy or first steps for project implementation within a short time it is possible to use “*Our way*” as well as “*Design meeting*” method.

Elaboration of action plan may be methodologically based on three phases of *Future workshop* (see collection of methods on website). Current state shall be outlined in the critique phase. Subsequently, picture of situation that we want to achieve in the future, shall be proposed within fantasy phase. Then in implementation phase concrete steps that make visions come true shall be processed (for example: Who makes what till when?). Furthermore, *We-workshop* method (see collection of methods on website) offers participatively focused hints for common successful implementation of projects built on pupils’ individual competences and needs.

Furthermore, “*Wishful thinking / Way to the future*” method and “*My opinion*” method are suitable extraordinarily for involvement of all pupils or whole school community when it is about collection of common visions and wishes for school designing and subsequent integration of the visions and wishes into the action plan. Based on “*When-then poster*” method it may be found out before drawing up the action plan what participants can do and want to do for the plan.

“*Mind mapping*” method may be used for formulation of quick and well-structured measures and objectives in an experienced group.

Finally, objectives or plans agreed should be checked in any case by the means of *SMART method* from the viewpoint whether they are specific, measurable, attractive, realistic and timely-achievable. It should be followed by correction, if necessary.

Step 4 – Monitoring and Evaluation

Monitoring shall be present in whole process and provide with feedback about successes or failings. Evaluation shows whether environmental review is realistic or it must be changed or modified. Furthermore, it shall give initiatives for successful elaboration and future implementation of environmental review. Principally, self-evaluation is a new environmental review that allows its comparison with original audit. Ideally, this procedure is made on the basis of a check list or a questionnaire. Furthermore, for support of pupils’ motivation and participation it is important to praise pupils involved in project and plan implementation for results achieved jointly and to acknowledge and appreciate their engagement.

Good practice

Self-evaluation by the means of action plan

At a grammar school Eco-Schools committee elaborated a precise action plan where procedure for planned period in small steps, clear responsibilities, expected results

and reasonable time periods were processed tabularly. School bodies and members of school community were made familiar with the action plan in several ways and school conference adopted it on the school committee's proposal as a binding target. During the action period it was necessary to make adjustments from time to time in such a way that responsibilities (e.g. because of illness) and time target (because of unfavourable circumstances) had to be changed in the action plan. Based on precise data of multiply-updated action plan it was relatively easy to check within evaluation the progress made after lapsing of implementation period. Furthermore, members of Eco-Schools committee repeated the environmental review making small adjustments. Comparison of both findings before and after implementation period brought knowledge necessary for up-date of action plan for another implementation period. At the same time it was considered to what extent new plans and development of old plans should be included in elaboration of the action plan.

Making new environmental review

Pupils of a secondary school and leaders of Eco-School committee decided not to elaborate any evaluation form that would check the progress made in their project. For evaluation of energy consumption and waste volume they used the same questionnaire that was used in the environmental review made at the beginning of action period. There are pupils or small groups responsible for each area. They measure or describe current state and present the results comparing to original review within the group. Leaders of Eco-Schools committee take results down in a questionnaire and evaluate them together with pupils. At the end they determine what successes have been achieved, what area has not recorded any improvements and what should be done in the future to improve the situation.

Members of Eco-Schools committee are asked for progress

Based on a procedure that has worked at a grammar school for years members of Eco-Schools committee are interviewed regarding progress in respective project by leaders of Eco-School committee. Leaders elaborate a questionnaire in advance and take a check list from environmental review as a base for that. At a common Eco-Schools committee meeting pupils are proposed questions related to their area of responsibility. As for preparation, it is important that pupils are informed about situation and current state of their area of responsibility exactly. The task was assigned to them at previous meeting.

Tasks

A check list or questionnaire shall be elaborated for evaluation, what should be done in cooperation with pupils preferably. As evaluation is principally a new environmental review it is possible to check together with pupils whether tasks have been completed, deadlines have been met or whether objectives could have been achieved. Furthermore, evaluation may be performed in the framework of lessons. Data and information may be evaluated for example in subjects like mathematics, informatics, German language, English language, geography or biology. The plan may be included in curriculum in this way. Pupils should be acknowledged and praised for their successes.

Informing and involving the school community

Process and results of evaluation should be evaluated within Eco-Schools committee and then also within school community. Moreover, evaluation results should be published at school and made accessible to all (e.g. charts, schemes). It is reasonable to organize a meeting where representatives or bodies of school community express praise and acknowledgement for engagement.

Quality indicators

There is a well-processed questionnaire in written form (evaluation table or check list) that is focused on plan clearly. Progress made and potential imperfections shall be formulated and results shall be stated visually (e.g. charts and schemes) in written evaluation. Furthermore, school has processed the possibility to integrate evaluation into lessons extensively (e.g. mathematics, informatics, German language, English language, geography, biology).

Methods

As early as during implementation of the action plan changes should be made at regular meetings of Eco-Schools meetings if not enough financial and personnel resources are available, deadlines cannot be met or unexpected organizational problems occur (see e.g. “*Stumbling blocks*” method). Checking of progress after action plan implementation documents to what extent set objectives could have been achieved and it is a base for further work. Furthermore, Eco-Schools committee may examine the action plan together, go through it step by step and to tick the tasks in action plan on the basis of their current state or to provide them with appointments or measures for further work. Thus, it is clear immediately where further support or audit is necessary. Another possibility is to draw up an evaluation form or check list together in the Eco-Schools committee. *Model check list* (see collection of methods on website) shall serve as a template for that. Small groups may process single areas and fill out the check list related to these areas (see e.g. “*Interview forays*” method and “*Inspection and observation or survey*” method). At the same time light guard’s and energy guard’s or environmental detectives’ work should be taken into consideration and to ask them for their findings. At the end there should be common discussion in the group and they should answer the question: “Where are we now? Are we on the right way? What ran well? What could have run differently? Where did we make mistakes? What should have been done in order to achieve objective?” (see method “*Brainstorming*”/“*Brainwriting*”). In order to express acknowledgement and praise for participation in project internally at school it is suitable to organize for example a small internal award celebration. However, pupils may be acknowledged by handing certificates as well. Other possibilities how to highlight significance of projects are a press release about respective project in school-internal or external media, exhibition of results in the school for example on the “Day of Open school”.

Step 5 – Curriculum Work

This step is aiming at implementation of own set action objectives in the framework of *education for sustainable development* and assertion of more environmental compatibility and sustainability at school. It may be implemented for example by content connection with teaching inter alia at subjects like mathematics, chemistry,

informatics, German language, English language, biology and geography. Moreover, there are also interdisciplinary and subject-linking lessons as well as project work. The school programme should be characteristic by noticeable distinguishing marks. Thus, the topic of environment and sustainability or respective development processes as well as participative and innovative pedagogical concepts should be embedded in school programme. The school programme refers to an instrument of school development and supports permanent development and quality improvement of school. Selected significant topics requiring development occupy the centre stage. Development objectives shall be defined for each topic and plan, success criteria and evaluation methods for next year shall be agreed after evaluation. School programmes are an excellent tool for evaluation of school development processes as well as for curriculum linking within schooling and school life. Each school has got its school profile that can be improved by the means of school programme continuously.

Good practice

Focus on model of sustainable development in school programme

A few years ago schools were obliged to formulate a school programme for their work. A grammar school formulated its school programme focused on model of *sustainable development*. It is based on obligation of sustainable action and thinking and consideration of justice between generations and global justice. They managed to connect existing school activities in environmental area (environmental projects), social area (social practice, world activities), in economic area (focus on jobs) and in the area of pupils' participation and to develop a bearable concept for school life and schooling.

Projects accessing technical classes by the means of research papers and seminar papers

A grammar school has developed its ecological profile based on the fact that it was located in a biosphere reservation. Furthermore, the school initiated and implemented a few projects in the area of *sustainable development*. At the same time the project work finds an exemplary way to technical classes. Pupils of 9th and 10th class elaborate research papers related to project topics and pupils of 11th and 12th classes draw up seminar papers. The topics are as follows: school / school campus (school biotopes, nature trails, meadow with scattered fruit trees, etc.) or practical protection of nature or environment. Pupils work on their topics independently, are responsible for their work, guided by a teacher and have interim presentations in regular intervals as well as final presentation in union of classes that is held partially at school or out-of-school public events as well.

Sustainable development as general principle in schooling and school life

A headmaster of a special center has announced that school programme was developed in the course of the year by the means of project work related to environmental topics and sustainability "from the bottom and from that what has been done actively at school". Furthermore, participation has got a special position at the school. Many pupils and teachers of the school are involved in projects within several working groups focused on environment and sustainability and within *sustainable student company* (see collection of methods on website). Thus, a school profile

focused on model of *sustainable development* has been developed gradually. Sustainable student company “miksmaks” has been for example an integral part of school concept since 2006. It has got various departments like catering, bicycle shop, wood processing plant, accounting and marketing where pupils familiarize themselves with working environment demands and sustainability aspects in practical and action-oriented way.

Embedding class projects in school internal curriculum in each school year and project week

Accomplishment of a class project related to the topic of nature protection, resources protection or school campus by all classes refers to an integral part of lessons at an elementary school. Furthermore, in project week all classes participate in the topic “alternative energies” implemented in cooperation with local Agenda 21. There are energy detectives in each class and annual project day shall be implemented on the topic “healthy school breakfast”. School profile of “Environmental school / School in green” created in this connection is documented by notices, project introductions, documents and certificates in whole school building and by respective description on the website.

Project-oriented and interdisciplinary lessons

At an elementary school higher level of environmental compatibility and sustainability is implemented especially by the means of project-oriented lessons, action days and project weeks. As for curriculum linking, areas like mobility, climate protection, rubbish, waste and healthy nutrition became a subject-matter of schooling at general knowledge subject. For example at subjects like mathematics and general knowledge it has been worked in interdisciplinary way. Measurements of water volume, rain volume and tree height or counting of number of children taken to school by car are made and evaluated at lessons. Results are shifted further on to general knowledge lesson.

“Schoolyard as experience space” as focus of the school programme

School programme of an elementary school is focused on the topic “Schoolyard as experience space”. This plan has been supported by Eco-School committee called “Schoolyard” for a few years. Committee’s task is for example to implement schoolyard action days, to process schoolyard care concept (pupils collect garbage, sweep yard area, pour willow tepees and new plantings, pull up weeds) as well as to elaborate extensive planning and utilization concepts for reorganization of schoolyard.

Tasks

For curriculum linking at the school Eco-Schools committee should support and coordinate the process of respective school programme elaboration. For integration of *sustainable development* into schooling and school life it is recommended to elaborate respective objectives and focus on education and schooling. Members of school community – especially pupils committed in terms of *participation* - should be involved in it. Focus on education for sustainable development should find its way to school internal curriculum. Innovative participative methods as well as topics of sustainable development should be integrated in subjects taught, in tasks (for

example environmental education, support of health) and project work. Furthermore, work on local Agenda 21 process or development of pupils' relation to living environment may refer to a significant task.

Informing and involving the school community

School programme should be published for all members of school community visibly. It may be done for example by the means of website, school-made flyer or notices at the school. For filling common vision with life respective subjects, projects and working groups should be offered to pupils. Furthermore, it is recommended to support the process of *education for sustainable development* at lessons and in school life by the means of further education of teachers. Training of janitor and canteen staff offers a good support, too. It is suitable to use parents' occupational competences.

Quality indicators

Education for sustainable development is implemented in practice, is embedded in schooling and school life and thus, it is an integral part of school programme and school profile. "School inspectors" provide with positive feedback related to asserting the education for sustainable development in schooling and school life. Description of school programme and projects and results shall be presented for example at website or in the school building. *Pupils' participation* shall play a role in development of school programme as well as in looking for topics and implementation of projects. Pupils shall develop their expertise, methodological competence, social competence and personal competence or *shaping competence* in terms of education for sustainable development.

Methods

It is very helpful to formulate common visions in details and the way how *education for sustainable development* may be included in schooling and school life. School programme should be elaborated at respective bodies involving pupils, too. Participative methods as follows may be used for this: *Mind-mapping, Brainstorming / Brainwriting, Work in small groups, Group interview, Future workshop, "My opinion", "Wishful thinking / Way to the future", World Café*. For taking common, fast and participative decision among ideas suggested it is recommended to use "*Point-decision*" method. In generally, it should be considered that innovative and participative methods and topics of sustainable development are included in various subjects and respective school internal curriculum is drawn up. Initiatives for the process may be acquired by exchanging with model schools. Implementation of sustainable development in schooling and school life is a long-term process that often starts with practical project work and plans and becomes the content of school programme.

Step 6 – Informing and Involving

School life is a part of life in a borough or in a municipality. Involving the out-of-school partners and cooperation with out-of-school facilities refers to a significant part and quality criterion of Eco-Schools. Besides members of school community other persons from out-of-school environment like parents, enterprises, local organizations

nd authorities should be involved in the project or plan, too. Cooperation with an out-of-school partner allows to come out of the school with pupils and to shape school life as a part of life in borough or municipality. Furthermore, involving out-of-school partners and cooperation with out-of-school facilities offers the opportunity to learn from each other and to benefit from the cooperation mutually.

Good practise

“Schoolyard as experience space”: cooperation with experts from borough and parenthood

An elementary school with school programme focus “Schoolyard as experience space” has had an Eco-School committee called “Schoolyard” (teachers and parents) for a few years. Task of the committee is for example to draw up a schoolyard care concept and an extensive planning and utilization concept for reorganization of schoolyard. Furthermore, the “Schoolyard” committee cooperates with various out-of-school partners like a construction company, a garden company, municipal gardening department and district authority. Furthermore, it cooperates with experts from parenthood like for example with gardening engineer and municipal planning experts who provide plans, drawings and instructions at specific activities.

Cooperation with a nature protection organization

A secondary school has cooperated with nearby National Park Administration Office for a few years. An employee of the National Park Administration Office is also a member of Eco-Schools committee and supports it when elaborating the action plan or provides with advices when preparing and implementing some activities. So far, for example lectures and discussions about national park have been made, exhibitions at the school about other national parks in Europe have been organized, planting and river cleaning in the surrounding of the school has been carried out, class trips to the national park have been made and movies related to certain environmental topics have been played and discussed afterwards.

Pupils’ information campaign in the city

An elementary school made an information campaign in cooperation with city administration in order to introduce waste separation of metal and aluminium scrap. Dustbins for metal and aluminium scrap are red, that’s why pupils decided to elaborate red information flyers for the campaign. At preparatory meeting they were assigned different boroughs to go – always accompanied by an adult. They could cover almost all households of the city thanks to support of fire corps, parents and other volunteers. On previous day the campaign was advertised on local radio. Then on the action day pupils took off by bikes and having on the city logo on their t-shirts and a peaked cap. They belled at each house, explained the necessity of waste separation, informed where the nearest dustbin is located and forwarded the red flyer.

Enrolment of first-graders – Aptitude test with environmental-pedagogical games

A school thought out something quite special for enrolment of first-graders or for implementation of an elementary school aptitude test. Parents and children were invited to the school. At the beginning parents could participate in school round tour

including a presentation of school environmental activities. Children were divided into small groups so that aptitude test could be carried out. There were playful eco-workshops where children could prove their talent and creativity. For example, children learned a nature song, produced flowers from waste material. In the game “Large forest” they were putting together letters, looking for numerical series and could apply their feeling for rhythm and motor skills. At the end they were given a diploma for these first successfully completed tasks. At this first contact with school parents and children were informed about the Eco-Schools programme and first access to environmental education was created.

Water Quality project: pupils organize a lecture and invite experts there

At a grammar school pupils examined water quality of a nearby stream in the framework of a project. During different seasons they made measurements of chemical and biological quality of water at different parts of the stream. They received knowledge necessary for that at biology classes. When performing the measurements pupils’ attention was attracted by the fact that water quality in certain part of the stream was significantly worse than in other parts of the stream both upstream and downstream. Based on that they concluded the reason of polluted water and at the end they found it. Pupils published the case and informed local press and borough mayor about it. Pupils initiated a lecture and a discussion afternoon by the means of some teachers and with permit from school administration in order to inform other pupils from their school as well as from neighbouring schools about the state of the matter and related risks and problems. They sent out invitation cards early enough. Lecturers were pupils as well as experts from waterworks and district authority. According to all participants’ evaluation the afternoon session was a big success that provided with information, brought more light into the issue and had an impact on lessons. The school made a similar event related to other topics as well, always at an interval of half a year and thus, it integrated *pupils’ participation* into school life.

Collecting data related to energy consumption and waste volume in cooperation with municipal environment agency

More than fifteen years ago municipal environment agency recorded actual state of waste volume and energy consumption at a special school for the first time. Since then there has been a continuous and close data exchange between the school and environment agency. Pupils enter the data on the basis of available check lists and forward them to environment agency. The environment agency submits improvement proposals to the school and school implements respective measures by the means of pupils. It is informed about energy savings achieved at various school bodies.

Public relations working group

A small group was created within Eco-Schools committee at a grammar school that takes care of public relations in the framework of projects and plans intensively. These pupils make pictures of project work and results, write articles about projects and publish them in school newspapers or on school website. Pupils write newspapers articles in cooperation with German language teacher. They establish contact with local press, especially when project is implemented in cooperation with out-of-school partner from the borough (see also FEE-Project “Young Reporters for

Environment”).

Action days and environment days / Open door days

An elementary and secondary school cooperates on projects with various partners from the borough, like world shop, nature protection union or cultural facilities. Pupils (in cooperation with out-of-school partner – depending on project) inform parents and general public about projects on annual Environment day or Open door day. “School ambassadors” are a special initiative who inform about projects for example at further education or present them at various events.

Cooperation with local Agenda-21

An elementary school has been working with municipal Agenda 21 office for years. Representatives of Eco-Schools committee work in local Agenda 21 “City development” working group and thus, ideas are transferred to Eco-Schools committee and vice versa. Based on requirements or actions or projects planned and implemented by the Eco-Schools committee projects are implemented together or project results are presented by pupils on Agenda 21 Day.

Tasks

The Eco-Schools committee should win out-of-school partners for cooperation depending on project plan and focus. When selecting out-of-school partners for cooperation, authorities, institutes, other schools, unions, organizations, experts, social facilities and enterprises should be considered. Furthermore, work should be implemented inwards and outwards and presented in such a way that it affects the public. This may be achieved for example by publications, exhibitions, information on school website and in a newspapers article. From the viewpoint of fundraising, there should be cooperation with sponsors (local ones as well as on national and international level; compare: Programme – tenders as well as at www.eco-schools.org).

Informing and involving the school community

Involving the school community and informing about the state and results of plans or projects should be made - as shown in previous steps, too - by the means of various school bodies, documentations, notices, on school website or letters to parents. Furthermore, Eco-Schools committee’s engagement and successful work should be acknowledged and appreciated also at a certification event by awarding of Eco-Schools flag and deed publicly. At the same time it is suitable to invite city representatives, like mayor, regional politicians or representatives of school authority and environment agency. Project results may be presented in the framework of jointly organized exhibitions, action days, environment days or school feasts what affects the public positively.

Quality indicators

There is cooperation with different partners (based on project focus) that are promising, well-running, well-kept and that both parties benefit from. There are written cooperation agreements. School shall present its plans and projects in public and have a high number of applicants. Pupils are involved essentially in the process of informing and involving the out-of-school groups.

Methods

Before concluding cooperation with out-of-school partners it is suitable to find out whether there are appropriate partners connected somehow with respective project in your environment or school environment. Pupils may participate in this by investigating (see e.g. “*Interview forays*” method). A cooperation partner may often be found among parenthood when mother or father work for example at municipal environment agency or cultural office. Thus, for example climate expert from environmental agency may provide pupils with knowledge and experience and environment agency may benefit from collection of environmental data provided by pupils. Furthermore, common public-effective actions or open door day may be implemented with the partner. Ideas for establishment of cooperation with out-of-school partner may be collected by the means of various participative methods like *Mind-mapping, Brainstorming / Brainwriting, Future workshop, We-workshop, Work in small groups or Group interview*. For example “*Point-decision*” method is recommended for taking a fast and participative decisions and selecting from ideas collected. Furthermore, it is suitable to formulate rules of communication and cooperation with out-of-school partner (see “*Reminder*” method and “*Cooperation*” material) and to conclude a cooperation agreement with him where mutual cooperation is stated in writing. A small group of pupils may be created for support of public awareness that shall be in charge for out-of-school public relations specially and shall write articles to local newspapers or school newspapers and school website. Another possibility refers to information campaigns organized by pupils (inter alia distribution of flyers and circulars, involving the local press and radio, provision of consultations). Furthermore, a small expression of thanks for partner’s support fosters future cooperation.

Step 7 – Eco-code

Here it is the matter of formulation of common objectives for schooling and school life as well as for work on plans and projects. The base of Eco-code refers to school programme and implementation thereof. In an Eco-code of school general objectives and action principles are summarized in writing and basic values or philosophy of school are recorded briefly and concisely. Eco-code shall be adopted by the highest management level, should be a part of school programme and school rules and house rules may or must be modified according to Eco-code. Eco-code affects and sharpens the school profile. It is crucial that Eco-code is expressed in school everyday life and education offered by school in revisable way. School development and Eco-code shall be affected and conditioned mutually.

Good practice

Eco-code as a part of house rules and school rules

Eco-code of a grammar school is leaned against international decisive ideas of Agenda 21 and was established by synopsis and pooling of many single facets of the school. It is to be found in school programme as well as in school rules and house rules. Take-over of sustainability idea in the preamble of school and house rules was a new step because hereby programme focus of school internal policy was shown for the first time. It is stated in the Eco-code of the grammar school that members of the

school community want to contribute proactively by their thinking and acting in their school to preservation and improvement of life situation and life chances of present and future generations. The school community pledges itself to contribute to environmentally acceptable, sustainable and fit-for-the-future development in ecological, economic and social area. Based on its acting it wants to contribute to fair world in global partnership. The Eco-code lists single environmental and social orientations and all (!) members of school community pledged themselves by their signatures to comply with these orientations. The Eco-code is published in showcase of the school.

Common formulation of Eco-code through bodies

At an elementary and secondary school a *pupil parliament* established by school shall elaborate an Eco-code proposal. Pupil parliament shall be counselled by a responsible teacher. Class speakers of all classes shall meet once a week in pupil parliament bringing ideas from their classes. Proposals from single classes were discussed and amended at several sessions and Eco-code of the school was made of them. Elaborated proposals were presented, re-elaborated and amended at teachers' conference and then sent to pupil parliament again. At the end the proposal was adopted at school conference.

Creative contest for Eco-code elaboration

At a middle school every class painted an Eco-code on Earth day feast. All pictures were published at school lobby and at the end pupils chose one Eco-code of the school jointly.

Creating a collage

At an elementary school pupils of third and fourth class painted Eco-code at art classes. Art works created in small groups were presented at meeting of classes. They discussed what painting ideas and motives are important for the school and those were selected. Then, the motives were cut out and pupils created common picture referring to Eco-code of the school and merged them in one collage and added other pictures to it. In this way ideas from all classes were used in Eco-code of the school.

Tasks

All persons active at the school should be called on to participate in formulation of Eco-code. Eco-Schools committee should initiate collection of proposals from single school bodies based on which common Eco-code should be formulated. House and school rules as well as school programme should be supplemented with respective objectives and action principles of Eco-code.

Informing and involving the school community

There should be a debate about Eco-code in the school. Pupils may organize it together during project days. Furthermore, Eco-code may become a subject-matter of lessons and may be discussed and formulated for example during native language class or art class. Anyway, Eco-code should include actions and projects related to life. It is suitable to present it for example on Open door day by the means of exemplar public projects and actions. It is essential that school community identifies

itself with the Eco-code.

Quality indicators

The Eco-code shall arise from a wide consensus within school community and shall be adopted by school bodies. It shall be signed especially by all teachers and pupils or their representatives and then it shall be published in school building in the way that it is visible for everyone. Furthermore, Eco-code shall enter the internal curriculum and shall be incorporated into official documents of the school (e.g. House and school rules, school programme, website).

Methods

All pupils may be called up for example in a creative contest (see example above) to participate in formulation and drawing up of an Eco-code. For this purpose it is necessary to discuss the meaning and form of Eco-code with pupils at lesson in advance. Principally, Eco-code should include several precepts related to sustainable development at school. Such precepts should start with words “We want...” However, it may be proposed and presented by Eco-Schools committee or body involving pupils and followed by discussion with pupils. Ideas for Eco-code elaboration may be collected by the means of participative methods like *Mind-mapping*, *Brainstorming / Brainwriting*, *Work in small groups*, *Group interview*, *Future workshop*. Visualised proposals or proposals written on cards shall be attached to wall and categorised according to general headings. Then selection criteria shall be stipulated (e.g. as for relevancy for sustainability at school, pupils’ participation support). Then some proposals shall be selected by the means of “*Point-decision*” method and discussion shall show whether everyone agrees with them. Subsequently, Eco-code shall be formulated by the means of priority list. At the end pupils should go through the proposals at respective school bodies and they should agree on common Eco-code. The Eco-code should be published in school building in such a way that it is visible for everyone (for example at a notice board or in a showcase) and it should be signed by all pupils or school community.

4. Methods

4.1 Participative methods

Which methods may be used for implementation of co-decision and co-determination of pupils or school community in environmental management of school? How may pupils or school community get involved in elaboration and implementation of action plan? Which methods can be used by pupils to perform environmental review independently? How may project ideas and visions be collected in an action team jointly? Following collection of methods shall give suggestions to this and other questions. There are simple methods in this collection of methods that may be integrated in working process easily and require no special assumptions.

When describing the methods it shall be suggested at the beginning by the way of an example at which out of the seven steps and with what objective respective method shall be used.

4.1.1 Identify problem areas / Express your opinion

Stumbling blocks

Step 4: Observing project course critically

This illustrative method suits for denotation and collection of problems and critique. “Stumbling blocks” refer to things that disturb us or hamper us. First the group shall get in the right mood for respective topic area. The topics may be as follows: “Stumbling blocks in our project...”, “Stumbling blocks in environmental management...”, etc. Pupils shall sit on chairs in the circle. There are many boxes (e.g. shoe boxes) lying in the middle of the circle. They represent stumbling blocks. There are papers attached to the boxes (or *stumbling blocks* may be written on papers). Everyone shall get a pen or a marker. Teacher shall ask pupils to get up and walk around. Pupils shall imagine that boxes are stumbling blocks. Every time they stumble over a stone, they shall think what stumbling block it is, i.e. what problem they have just stumbled over. When there are no more ideas left and all stumbling blocks are named, they shall go back to their chairs. Then, they shall examine the problems and order them. Then they can work with them further on and look for ideas to solve the problems.

Duration: 2 hours

Material: sufficient amount of card-boxes, stick all over with paper to write (or *papers with stumbling blocks*, see collection of methods on website), pen for each participant.

(Source: www.kinderpolitik.de - State as of: 19.07.2010)

My opinion

Step 3: Involving the school community in action plan elaboration

Step 5: Involving the school community in school programme elaboration

Pupils note down their wishes, critique points and problems related to a specific issue at the school on an “opinion sheet”. For this purpose they shall receive an “opinion sheet” and assignment in the form of impulse question like for example: “What should be different according to your wish?” “What do you like?”, “What don’t you like at all?”, “What should be changed?”. The question shall be written on the top of the sheet. Pupils shall note down their wishes and critique, etc. into a big bubble. At the end all pupils shall present their opinions and make an “opinion exhibition” on notice board (or laundry line). Results shall be discussed jointly and a picture of pupils may be added to the exhibition and then it may be displayed in public.

Duration: approximately 30 minutes

Material: an *opinion sheet* (see collection of methods on website) for each participant, pens, material for compiling an exhibition, potentially a digital camera

(Source: www.kinderpolitik.de - State as of: 19.07.2010)

Flashlight

Impulse for a flashlight is given mostly by moderator and it may be as follows:

“How do you feel and what will you take from this workshop?” or “Say in a sentence what was interesting for you at this workshop.” The question is usually answered one by one; however, it may be optional, too. No one is obliged to answer. The moderator

shall pay attention that participants' statements are not commented. Each statement shall first left behind for itself. First at the end the result of flashlight round can be taken up again and potentially discussed.

Duration: 10 minutes

Material: --

(Source: Albers, O./Broux, A. (1999): Zukunftswerkstatt und Szenariotechnik. Ein Methodenbuch für Schule und Hochschule. Weinheim/Basel, Beltz Verlag p.107)

World Café

Step 5: Involving the school community in school programme elaboration

The method suits well for exchanging knowledge and ideas among participants. In a relaxed atmosphere similar to the one in coffeehouse a creative process for developing new ideas, acquiring new knowledge and looking for action possibilities shall be set in motion in several discussion rounds. In three mutually connected discussion rounds taking approximately 20 to 30 minutes 4 to 6 persons shall meet in a relaxed atmosphere at a table. Each table shall receive a *Café etiquette*. There is a large poster or paper tablecloth as well as pens for writing. Table neighbours shall deal with a concrete topic or question proposed like for example: "What makes a good school?". Ideas, thoughts and perceptions of discussion round shall be noted down onto tablecloth. After first discussion round participants shall leave their table and come to other tables. However, a table host shall remain back at the table and explain significant ideas from previous round to new incoming "travellers". The "travellers" shall also carry their thoughts further to other tables. Thus, dynamic exchange among all participants is enhanced and in a short time single participants' knowledge and experience can flow in, suggestions can be made and creative ideas can be established. After a few discussion rounds the most significant results shall be collected at each table and presented to whole group (or written on cards and pinned). At the end results and further actions shall be discussed in plenum. This method suits for big groups up to 100 persons (at least 15 persons should participate).

Duration: 1,5 to 2 hours

Material: paper tablecloth or a big poster as well as a *Café etiquette* on each table (see collection of methods on website), potentially drinks (coffeehouse atmosphere), pens, cards, tables and chairs according to number of persons.

(Source: www.partizipation.at/worldcafe.html - State as of: 19.07.2010)

4.1.2 Collect information / Make analysis

Interview forays (surveys / polling)

Step 2: Environmental review

Step 4: Monitoring and evaluation

Step 6: Informing and involving

An interview guideline shall be developed together with pupils. The guideline shall include questions that pupils would like to ask schoolmates, teachers, janitor, parents, citizens of the city or relevant institutions during their forays. Furthermore, it should be noted down when and where the interview was made and who was interviewed. Small groups of 2 to 5 pupils shall be created. Each small group shall

become the interview guideline with notepads as well as pens. Before they go off one person of the group shall be appointed to be an interviewer. The others may contribute with questions, too; however, they are in charge especially for notes. A point of time shall be agreed when small groups shall meet at starting point again (after approximately 60 to 90 minutes). Then small groups shall head out and make the interviews. At the point of time agreed the small groups shall meet at meeting point again and exchange their results in discussion. For evaluation of interview another appointment shall be agreed with pupils.

Duration: Implementation between 60 to 90 minutes as well as approximately an hour for preparation and follow-up.

Material: interview guideline, notepads or clipboard and pens

(Source: www.kinderpolitik.de - State as of 19.07.2010)

Inspection and observation or survey

Step 2: Environmental review

Step 4: Monitoring and evaluation

Inspection and observation or survey is a possible way of making an analysis. In the course of this pupils go through for example school building and schoolyard and according to respective observation task gather certain features and noticeable elements. It may refer to for example treatment and use of energy. First, the groups shall draw up an observation form and state which aspects shall be observed and determined. Then small groups of 3-5 pupils shall be created. Each group shall go off to its area and at the same time to fill out the observation form. Subsequently, the groups shall discuss their findings within common discussion. They may also take pictures in order to document their findings. Here it is important to pay attention to the fact that pictures are matched with right notes.

Duration: approximately 2 hours

Material: notice sheets, observation forms, pens, clipboards and digital camera if needed

(Source: www.kinderpolitik.de - State as of 19.07.2010)

4.1.3 Find and collect ideas

Brainwriting

Step 2: Selecting areas for environmental review

Step 3: Collecting ideas for action plan elaboration

Step 4: Monitoring and evaluation

Step 5: Collecting ideas for school programme elaboration

Step 6: Finding ideas for cooperation with out-of-school partner

Step 7: Collecting ideas for Eco-code elaboration

Brainwriting is a method for collection of ideas, suggestions, expectations, wishes, etc. related to a specific issue. For this purpose participants shall receive clear cards where they write answer to respective question. They get 5 minutes for that. As many ideas may be written as many come into participants' mind. It is important to write just one idea on one card. Following the thinking time results shall be announced to the others and each person shall attach or pin his / her cards on the wall and explain them to other participants. Then all answers shall be matched with main or general

topics in order to get better overview. The method may fulfil several different functions according to task statement. For example, it may encourage to reflexion; it may help to find common topics or it may help to stipulate working rules.

Duration: 45 minutes

Material: cards to write, pens, adhesive tape or pins

(Source: Deutsche Kinder- und Jugendstiftung (Hrsg.) (2009): Methodensammlung: Lernorte der Demokratie im Vor- und Grundschulalter. Dresden, p.23, 32)

Brainstorming

Step 2: Selecting areas for environmental review

Step 3: Collecting ideas for action plan elaboration

Step 4: Monitoring and evaluation

Step 5: Collecting ideas for school programme elaboration

Step 6: Finding ideas for cooperation with out-of-school partner

Step 7: Collecting ideas for Eco-code elaboration

As for brainstorming the same objective is followed like with brainwriting. However, unlike brainwriting participants shall express their suggestions, ideas, opinions, etc. to a certain question verbally. These shall be written on blackboard or sheet of paper by moderator. When participants' current of ideas is over results shall be read aloud at the end. Then everyone shall have an opportunity to add further ideas. If no more additions come brainstorming shall be completed.

Duration: 20 minutes

Material: at least two big sheets of paper; adhesive tape for hanging the sheets on the wall or pin boards with pins or flipchart; 1 to 2 thick markers

(Source: www.kinderpolitik.de - State as of 19.07.2010)

Work in small groups

Step 3: Planning concrete steps and measures of action plan

Step 5: Drawing up the school programme

Step 6: Collecting ideas for cooperation with out-of-school partner

Step 7: Developing suggestions to Eco-code formulation

Small groups shall be created dealing with for example question or task like: "How can we shape our project?", "How can we implement more environmental compatibility and sustainability in our school?" or "How should be this aspect formulated in our Eco-code?". The small groups shall include three to five persons and shall get approximately 20 minutes for dealing with the topics. Each group shall get pens and cards on which they shall write or draw their thoughts related to the topic. Then results of small group work shall be presented to collective group. All participants shall be involved actively and contribute with their own experience. Then it is clear that pupils have own ideas at their disposal.

Duration: 40 to 60 minutes

Material: cards for writing, pens, adhesive tape or pins

(Source: Deutsche Kinder- und Jugendstiftung (Hrsg.) (2009): Methodensammlung: Lernorte der Demokratie im Vor- und Grundschulalter. Dresden, p.23, 31)

Group interview

- Step 5: Drawing up the school programme (in cooperation with parents, pupils, teachers)
- Step 6: Collecting ideas for cooperation with out-of-school partner
- Step 7: Collecting ideas for Eco-code formulation

Group interview refers to a method by which a question can be answered both individually and together with the others. Several groups of 4 to 5 participants shall be created. Each group shall receive a big sheet of paper with a marked-out field in the middle. Outer rim around the field shall be divided into as many parts as many participants available in the group. First each group member shall answer a question for himself / herself and write the answer into one of the outer fields. The questions may be as follows: “How pupils’ participation may be implemented?”, “How the cooperation with out-of-school partner may look like?” or “What items should be a part of our Eco-code?” (approximately 5 minutes). Then group members shall discuss their individual answers. At the end they shall agree on three most important statements and write them into the middle field (approximately 30 minutes). After that these statements shall be presented in plenum (approximately 10 minutes).

Duration: 45 minutes

Material: big sheets of paper (corresponding with number of groups), pens (corresponding with number of participants).

(Source: www.net-part.schule.rlp.de - State as of: 19.07.2010)

Wishful thinking / Way to the future

- Step 1: Motivating the Eco-Schools committee
- Step 3: Collecting ideas and wishes for action plan elaboration
- Step 5: Compiling wishes for school programme creation
- Step 6: Formulating visions for cooperation with out-of-school partner
- Step 7: Collecting ideas for Eco-code elaboration

Pupils shall paint or write their ideas, visions, wishes and dreams on big feet. The feet shall be laid out on the floor as a “way to the future”. This method may be used in many situations. It shall collect ideas, wishes, dreams and visions: 1. Teacher shall give out big sheets of paper to all participants on which feet shall be depicted (pay attention to the same number of right and left feet). 2. Pupils shall receive an assignment to paint, draw or write their ideas, wishes, dreams and visions related to respective topic (e.g. “My dream school”, “My environment-friendly school of the future has got...”, etc.). 3. Pupils shall start writing and painting. When everyone is ready, the pieces of work shall be laid down as a long way to the future and evaluated.

Duration: approximately 15 minutes

Material: a “foot” for each participant, possibly big / standard DIN A3 (see *template*, collection of methods on website); enough crayons or markers

(Source: www.kinderpolitik.de - State as of 19.07.2010)

4.1.4 Set rules / Take decisions

Reminder

Step 1: Setting rules for communication and cooperation in the Eco-Schools committee

Step 6: Setting rules for communication and cooperation with out-of-school partner

Rules related to joint work in a group shall be set by the means of a “reminder”. Thus, the group concludes a contract that is binding for everyone. Reminders may be written before, during and after the work (as a directive for the future). All group members shall write ideas and suggestions related to joint cooperation on cards (see *Brainwriting* method). At the same time main items shall be stipulated (e.g. conversation and discussion rules, observing deadlines, order in group room, conflict behaviour, etc.). Suggestions shall be collected, selected and visualised. Furthermore, collected cards may be attached to a visible billboard with heading: “Reminder – this is what we want to think of during our mutual cooperation!”. At this point do not fall to regulation illusion. Less is often more. Much must be negotiated first in group process. Reminders should always be kept in mind and checked (“Have we complied with it?”, “Do we have to change the rules?”, “Are the rules unnecessary?”, “Do we need additional rules?”).

Duration: approximately 15 minutes

Material: a poster, moderation cards or other “reminders”

(Source: www.kinderpolitik.de - State as of 19.07.2010)

Point-decision

Step 2: Agreeing on areas to be processed within environmental review preferentially

Step 3: Setting priorities when elaborating the action plan

(In generally for all steps, when a fast decision is to be taken by several persons)

Point-decision method is a voting process for all situations where a decision is to be taken quickly and participatively. It may refer to for example decision-making between various ideas, suggestions of solutions or topics. The suggestions shall be collected in advance and written on cards or in keywords on a sheet of paper directly and arranged clearly (e.g. by using *Brainwriting* / *Brainstorming* method). All participants shall receive adhesive points from moderator. As for multiple decision at least three adhesive points should be handed out to each person, however, maximum number of points should correspond with a half of number of possibilities to choose (e.g. ten proposals corresponds with five adhesive points for each participant). In case of one-point query participants shall receive just one point that may be attached to favoured proposal. Participants shall hand out their points to a question formulated concretely, e.g. “What topics are the most significant for me?”. Participants may assign to one proposal several points or all points. Once all participants assign their points, the points assigned to single proposals shall be counted up and noted down. It is followed by evaluation and discussion.

Duration: 10 to 20 minutes

Material: adhesive points (as for number see description); points may be painted with crayons alternatively; a (or several) sheet(s) of paper

(Source: www.kinderpolitik.de - State as of 19.07.2010)

When-then-Poster

Step 1: Motivation and assigning the tasks

Step 3: What participants can do and want to do for the project?

This method suits well when - prior taking decision about selection of a topic / project - we want to find out what single participants can do and want to do for the project. For this purpose moderator shall prepare a poster related to all topics and projects available for selection. There shall be a title in the heading saying: "When you select this project, then..." (or in relation to step 1: "If I participate in this Eco-Schools committee, then..."). Then each participant shall get a slip of paper or moderation card and pen and moderator shall explain the procedure. Moderator shall ask maximum four questions that shall be answered on the cards by participants and writes them on the posters. The questions must be formulated clearly and unambiguously allowing concrete answers. Examples of questions are as follows: "What shall I do when I get involved in the Eco-Schools committee?", "What shall I do for our plan?", "What shall change in our school?", "How much time am I willing to devote o this plan?", etc. It is necessary to keep in mind that just one idea in note form is written on each card. When all participants are ready, their statements shall be presented to whole group and pinned on the poster next to respective question. Then the group shall try to decide for one topic or project. It is necessary to consider which project would have e.g. the biggest positive or long-term effect, which one has got the biggest support in the group, what project the most of participants want to participate in, which project offers the highest number of competences and which things have got the biggest chance for success.

Duration: approximately 20 minutes

Material: a poster prepared for each topic / project (a big sheet of paper), sufficient number of slips of paper or moderation cards, adhesive tape or pins, a marker for each participant

(Source: www.kinderpolitik.de - State as of 19.07.2010)

4.1.5 Formulate and set objectives / Plan action steps

Mind-mapping

Step 3: Formulating objectives and measures in action plan

Step 5: Drawing up the school programme

Step 6: Collecting ideas for cooperation with out-of-school partner

Step 7: Collecting ideas for Eco-code elaboration

This method assumes that group has already found topics or areas that it wants to work on. Moderator shall write a topic or an area in the middle of a sheet of paper and draw a circle around it. Participant shall enumerate all assumptions and action steps related to successful elaboration of the topic or area. The moderator shall link them with the circle. By the means of the mind map created in this way it is possible to formulate the objective and measures.

Duration: approximately 20 minutes per objective

Material: pens, a bog sheet of paper, pin board

(Source: Deutsche Kinder- und Jugendstiftung (Hrsg.) (2009): Methodensammlung: Lernorte der Demokratie im Vor- und Grundschulalter. Dresden, p.33)

SMART method

Step 3: Formulating and checking the objectives of action plan

The SMART method is used when for example determining objectives of projects. By the means of the method objectives are formulated in such a way that they are **specific, measurable, attractive, realistic and terminable** (timely achievable). SMARTly formulated objectives are a quality indicator and beneficial for checking of objective achievement (evaluation). Within the group of participants the objective of plan shall be checked according to the criteria as follows:

Specific: Is the objective concrete and unambiguous?

Measurable: Is it possible to check whether the objective has been achieved?

Attractive: Is the objective worthwhile for all participants?

Realistic: Is the objective achievable indeed?

Terminable: Is the objective achievable within a reasonable period?

A plan is "SMART" when it complies with the criteria above and it should be formulated correspondingly.

Duration: 30 to 60 minutes

Material: papers and pens

(Source: Unger, H. et al (2008): Partizipative Qualitätsentwicklung in der Praxis: Die "ZiWi-Methode": Ziele definieren, Wirkungswege skizzieren. Info_Dienst für Gesundheitsförderung, 8(2), p. 11-12.

Unger, H. et al (2008): SMART-Kriterien zur Bestimmung von Zielen. Online on Internet: www.partizipative-qualitaetsentwicklung.de (State as of 09.08.10)

Our way

Step 3: Drawing up the action plan

This method suits for drafting an action strategy for implementation of a project in a short time. Moderator shall prepare a big notice board. Project objective shall be on the top. There are "*footprints*" attached below it representing a way. Examples for topics are as follows: "How can we achieve more co-determination?", "What can we do to make our school more environment-friendly?", etc. The groups shall be divided into small groups of 3 to 4 persons. The teams shall get an assignment to look for solution proposals and to write them on cards in key words. "Female experts" and "male experts" shall get approximately 30 minutes for that. Then all small groups shall merge together and present their solution proposals. The cards shall be attached to a pin board next to the notice board. Then doublings shall be summarized together and then proposals ordered according to single topics. In next step the group shall turn its attention to "Our way" notice board. How could be single proposals brought together in one way, i.e. to assemble one concrete action strategy for objective achievement? It is recommended to put down solution proposals on "*footprints*" newly and to make small corrections at the same time. If it has not happened yet, the steps shall be arranged reasonably, mostly chronologically at the end. ("What shall we do first?", "What shall come next?", etc.). The action strategy created in this way is a starting point for concrete plans: "What do we have to do to achieve the first step?", "Who shall be in charge for what?", "Who can we win for support?", etc.

Duration: approximately 2 hours

Material: a big notice board, "*footprints*" (both left and right feet, see collection of

methods on website), moderation material (cards, pins, marker)

(Source: www.kinderpolitik.de - State as of 19.07.2010)

Design meeting

Step 3: Drawing up the action plan

This method suits for collection of individual ideas related to an already-adopted project with pupils and development of first implementation steps. Design meeting shall be structured according to key phases (critique phase, fantasy phase and implementation phase, see collection of methods on website) of *future workshop* (without creative and group-dynamic elements). In design meeting the result orientation and implementation planning have the highest priority. First it should be explained whether the plan can be implemented principally. Design meeting with pupils makes sense only when the plan is wanted and feasible. Furthermore, design meeting concept should be elaborated, basic issues related to single working steps should be formulated and visualized and material arranged and pin boards built in advance. After critique phase and fantasy phase the plan of activities should be elaborated within implementation phase (e.g. Who makes what till when?). At the end, the date of next meeting shall be agreed.

Duration: 2 to 3 hours

Material: big sheets of paper, two pin boards, pins, moderation cards, adhesive tape, pens

(Source: www.kinderpolitik.de - State as of 19.07.2010)

4.1.6 Relaxation games / Creativity-developing exercises

Brain-Gym-exercise

This exercise is aiming at mental and physical activation by the means of physical exercises as well as activation of the left and right hemisphere. Participants shall stand in a circle and should have enough space around. The moderator shall give an instruction: let your left hand touch your right ear and at the same time let your second hand touch your nose – then touch your knees having both hands crossed - now reversely – i.e. let your right hand touch your left ear and let your left hand touch your nose. Go on and continue the exercise changing the hands constantly. By the means of these cross-over movements both left and right hemisphere shall be activated and your performances linked.

Duration: 5 to 10 minutes

Material: none

(Source: Albers, O./Broux, A. (1999): Zukunftswerkstatt und Szenariotechnik. Ein Methodenbuch für Schule und Hochschule. Weinheim/Basel, Beltz Verlag, p.108)

Solving a knot

Objective of this exercise is to make participants feel relaxed and to solve a problem together. Participants shall make a circle; everyone shall stretch the hands forwards. On command everyone shall make one or two steps forwards heading towards the centre of the circle having eyes closed and grasp someone's hand. Be careful not to grasp someone's both hands. The knot created in this way shall get unknot without simple releasing the hands. The exercise shall be completed when all participants stand in circle again. The exercise should be done with 12-15 participants.

Duration: approximately 5 to 10 minutes

Material: room large enough

(Source: Albers, O./Broux, A. (1999): Zukunftswerkstatt und Szenariotechnik. Ein Methodenbuch für Schule und Hochschule. Weinheim/Basel, Beltz Verlag p.117)

Fantasy trip

Fantasy trip is aiming at support of imaginative power and breaking free from reality. Fantasy trip can be tuned similarly like for example fantasy phase in future workshop. Participants shall sit down or lie down comfortably, close their eyes and go for a trip in their imagination on which they are led by moderator. The trip may but does not have to be related to a topic. If future trip is related to a topic directly, it may lead e.g. to the future or to a different planet. Participants shall be led to a situation that they shall develop their ideas from.

Duration: 10 to 15 minutes

Material: background music, fantasy trip (find an example in the collection of methods on website)

(Source: Dauscher, U. (2006 [3]): Moderationsmethode und Zukunftswerkstatt. Augsburg, ZIEL Verlag, p. 162 f. ISBN 978-3-937210-52-0)

Round-story

A round-story is aiming at support of imaginative power and breaking free from reality. It can be tuned similarly like for example fantasy phase in *future workshop* (see collection of methods on website). When telling a round story, participants shall stand or sit in a circle. Participants shall be telling an imaginative story from future reality together where one by one shall add a sentence to the story. The topic is voluntary; however it may be related to topic of the workshop.

Duration: approximately 5 to 10 minutes

Material: none

(Source: Dauscher, U. (2006 [3]): Moderationsmethode und Zukunftswerkstatt. Augsburg, ZIEL Verlag, p. 162 f. ISBN 978-3-937210-52-0)

4.2 Participation-supporting structures and learning arrangements

Structures and learning arrangements for support of pupils' participation stated below are more extensive from the viewpoint of time and affect the structure of schooling and school life more strongly. Thus, for example a Future workshop or We-workshop can be made on project day or during project week. Of course, it is possible to single out and use single elements only. Basic aspect of service learning refers to the fact that this learning arrangement is connected with lessons and – similarly like when establishing a sustainable student company or pupil parliament – certain structures in schooling and school life are the main assumption.

When describing the methods it shall be suggested at the beginning by the way of an example at which out of the seven steps and with what objective respective method shall be used.

Future workshop

Step 3: Drawing up the action plan

Step 5: Drawing up the school programme

Step 6: Collecting ideas for cooperation with out-of-school partner

Step 7: Developing ideas for Eco-code

In a future workshop creative ideas are developed and problems solved under participation and active co-determination of all participants. The participants are experts in their field. Based on their knowledge, suggestions and ideas they develop visions and objectives related to a concrete issue, specific problem or strategy task independently and jointly, they plan projects and then implement them actively. Thus, pupils may become active co-shapers of the school, school life and lessons. At the same time a teacher takes over the role of advisor and moderator. It shall be proceeded pursuant to three-stage structure (critique phase, fantasy phase and implementation phase) as well as pursuant to fantasy-supporting rules and methods.

Duration: 1 to 3 days (project days or project weeks), by classes in a subject class or in cooperation with other subjects. Important: the three phases should not be interrupted!

Material: sheets of paper, meta-plan – basic equipment, markers, adhesive tape, DIN A4 paper

(Source: Albers, O./Broux, A. (1999): Zukunftswerkstatt und Szenariotechnik. Ein Methodenbuch für Schule und Hochschule. Weinheim/Basel, Beltz Verlag)

Further information and instructions for implementation of future workshop can be found in the collection of methods on website.

We-workshop

Step 1: Assigning tasks and distributing roles within Eco-Schools committee

Step 3: Drawing up the action plan

Step 6: Collecting ideas for cooperation with out-of-school partner

We-workshop allows to implement projects successfully on the basis of individual competences and needs of every single pupil. Basic principle refers to appreciation and valuation of an individual. Participation cannot be successful without appreciation of others and thus own person, too. We-workshop is a participative method based on "Appreciative Inquiry" (AI) method what may be translated as "asking and developing the positive". The positive is the priority. Strengths, abilities and skills of every single person are involved in the project profitably.

The method includes four phases:

1. Discovery (investigation, understanding, esteem)
2. Dream (developing visions and dreams)
3. Design (designing and planning)
4. Destiny (implementation and realization)

Duration: by classes, divided into several days

Material: see collection of methods on website

(Source: Deutsches Kinderhilfswerk e.V. (Hrsg.) (2007): Wir-Werkstatt. Berlin, p.2ff)

Further instructions to methodological implementation of We-workshop can be found in the collection of methods on website.

Pupil parliament

A pupil parliament is an institutionalised representative-democratic form of co-management and co-determination in the process of planning and shaping of school life and schooling. It offers to pupils a structure enabling them to shape school life with support from and in cooperation with teachers, school administration and parents and to take over responsibility.

The core of a pupil parliament is formed by regular, usually monthly parliamentary sessions where selected representatives of pupils from all classes discuss their topics and adopt resolutions to them. The course has got a firm structure that conforms to usual agenda structure of bodies' sessions. There is a chairman selected from pupils who prepares and chairs the session. Before the session starts members of parliament may submit him/her items for negotiation that they have brought for example from their class. The items on the agenda are discussed in the session consecutively and it is decided together what shall be done. Minutes related to results of the session shall be made and school community shall be informed about them in different ways. For example, representatives of pupils bring the results back to their classes. There is also a possibility to bind working forms focused on projects on pupil parliament. Thus, for example working groups with specific tasks can be established (e.g. Eco-Schools committee), fixed-term project initiatives in student body may be prompted in targeted way or arising initiatives may continue and be supported in regard to education of working groups, planning and implementation of projects.

Source: Tobias Diemer: Das Schülerparlament – ein Modell der Erweiterung innerschulischer Partizipation. In: Eikel, Angelika/ de Haan, Gerhard (Hrsg.): Demokratische Partizipation in der Schule ermöglichen, fördern, umsetzen. Schwalbach/ Ts. 2007, p. 93 f.

Service learning

By the means of service learning projects pupils do a service in favour of public welfare, they develop learning contents of classes at the same time, use them and thus, they acquire various competences.

In service learning projects pupils learn by the means of active participation in coping with really existing tasks and in problem solving in their community. Examples are as follows:

- Pupils develop a mentor programme for migrant children and deal with topics of migration and support of reading.
- Pupils design an old pavilion as a café and develop shaping methods and theories as well as fine-arts concepts.
- Pupils examine infestation of algae in a pond in local ZOO and deal with ecological and scientific methods and concepts.

It is essential that school learning is organized fundamentally in different way. The projects do not refer to extracurricular activity but to school lesson itself. Pupils develop their technical, methodological and social competences in the projects. They get an opportunity to apply knowledge acquired at school in authentic problem contexts. Furthermore, social education and communication is developed by the means of cooperation with various social groups in the community.

Phases of service learning shall be developed as follows:

- Investigation: Pupils investigate in their surroundings and identify significant challenges and problems.

- Problem solving in teams and with community partners: Pupils develop ideas for solving a problem and at the same time they cooperate with respective organizations closely.
- Project management: When implementing a project pupils use professional instruments of project management.
- Use of knowledge in concrete context: In classes pupils acquire knowledge and competences that are necessary for project implementation and use them in a concrete context.
- Reflexion of learning processes: Reflexion of experience and learning processes takes place in classes simultaneously / feedback.

At these projects pupils acquire the ability to co-shape our society responsibly and democratically, i.e. they learn:

- To be able to perceive other persons' needs,
- To be able to deal with it by the means of learned knowledge and own abilities,
- To work in teams in favour of other people and to acquire the ability to act by knowing own strengths and weaknesses.

Source: Sliwka, A./ Frank, S. (2003): Service Learning – Was ist das?

Online on Internet: www.blk-demokratie.de, Demokratie-Baustein „Service Learning“ BLK-Programm „Demokratie lernen & leben“ (State as of 25.07.2003)

Further information related to service learning on: www.servicelearning.de

Sustainable student company

In sustainable student companies pupils offer goods and services in a real market. They are organized permanently in company structure in order to be able to do economic activity successfully. Furthermore, they always bring social and ecological ideas into their business action in order to design their company sustainably and with regard to the future. Thus, the employees learn how to perform economic activity successfully in social and ecological responsibility.

Drawing up of a business plan plays a significant role in the process of creation of business and economic structures. In the process of its creation following is reflected, decided and implemented: business ideas, market analysis, marketing concepts, organization chart and personnel plan, capital and financial planning as well as legal form.

Methodological basic principle of work in student companies refers to learning focused on action. There are always situations that are new for pupils and teaching staff and require some solution. This authentic learning as well as economic activity in real market has a strongly motivating effect on the students. They get ready for their participation in business events and thus, they improve their personal abilities to make decisions in team, to undertake responsibility, etc. They also reflect on ethical dimension of economic activity. Furthermore, they develop entrepreneurial spirit and get ready to observe independence as personal professional perspective.

Sustainable student companies cooperate with regional companies. Preferably, they have one local partner enterprise from the same industry that helps them to cope with problems. They are in touch with local trade associations and organizations in order to illustrate their character of learning place.

Sustainable student companies always take into account social and ecological effects when performing their economic activity. Products and product processes or services are planned from the outset in such a way that they prevent negative effects or even affect positively. So there are student companies that participate actively in global projects. Sustainable student companies make a simplified sustainability audit annually: They make analysis of current state in a specific area, develop improvement objectives and strategies in order to achieve the objectives. Then, these measures are implemented and recorded. Thus, they learn joined-up thinking in the triangle of economy, environment and social aspect.

At the end of school year employees of a student company get employee's reference on request as an official annex to school leaving certificate. It has helped many students to find an apprenticeship or a job.

Examples of sustainable student companies are as follows:

- School bistro offers healthy breakfast
- Bicycle shop takes care of safe mobility
- Travel agency organises ecological class trips

Source: Transfer-21 (Hrsg) (o.J.): Herzlich Willkommen in der Schule. Was erwartet mich in der Schule? Tipps, Tricks und Kniffe, Berlin, p. 23f.

Available online on:

www.institutfutur.de/transfer-21/daten/materialien/T21_ganztag2.pdf

(State as of: 12.07.2010)

Further information related to sustainable student companies on: www.nasch21.de

5. Publications and websites

Publications

Behörde für Bildung und Sport (Hrsg.) (2006): Orientierungsrahmen Qualitätsentwicklung an Hamburger Schulen. Hamburg.

Available online on:

www.hamburger-bildungsserver.de/schulentwicklung/schulqualitaet/orientierungsrahmen.pdf

(State as of 12.07.2010)

Behörde für Bildung und Sport (Hrsg.) (2005): Hamburger Beiträge zu BLK-Programmen, Heft 9. Hamburg.

Behörde für Schule, Jugend und Berufsbildung/Amt für Schule (Hrsg.) (1996): Vom Denken zum Handeln. Wegweiser zu einer umweltverträglichen Schule. Hamburg.

BMU (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit) (Hrsg.) (o.J.): Konferenz der Vereinten Nationen für Umwelt und Entwicklung im Juni 1992 in Rio de Janeiro - Dokumente – Agenda 21. Bonn.

Bormann et al (Hrsg.) (2001): Audit an Schulen – leicht gemacht. Hamburg, Reinhold Krämer Verlag.

Deutsche Kinder- und Jugendstiftung (Hrsg.) (2008): Methodensammlung Schülerbeteiligung. Dresden.

Available online on:

www.dkjs.de/uploads/tx_spdkjpublications/Methodenmappe_Demokratie_Anfang_Auflage_4.pdf

(State as of 12.07.2010)

DGU (Deutsche Gesellschaft für Umwelterziehung e.V.) (Hrsg.) (2010): Umweltschule in Europa/Internationale Agenda 21-Schule. Mantelbogen Auszeichnungsprogramm. Schwerin.

Available online on:

www.umwelterziehung.de/download/umweltschule/Ausschreibungen/USE_INA-Mantelbogen.pdf

(State as of 12.07.2010)

Diemer, T.: Das Schülerparlament – ein Modell der Erweiterung innerschulischer Partizipation. In: Eikel, A./ de Haan, G. (Hrsg.): Demokratische Partizipation in der Schule ermöglichen, fördern, umsetzen. Schwalbach/ Ts. 2007, p. 93 f.

Niedersächsisches Kultusministerium (Hrsg.) (2006): Der Orientierungsrahmen Schulqualität in Niedersachsen. Hannover.

Available online on: www.mk.niedersachsen.de (State as of 12.07.2010)

Programm Transfer-21 (Hrsg.) (o.J.): Zukunft gestalten lernen durch Bildung für nachhaltige Entwicklung. Didaktischer Leitfaden zur Veränderung der Unterrichts im Primarbereich. Berlin.

Available online on: www.transfer-21.de/daten/grundschule/Didaktik_Leifaden.pdf

(State as of 12.07.2010)

Programm Transfer-21 (Hrsg.) (o.J.): Herzlichwillkommen in der Schule. Was erwartet mich in der Schule? Tipps, Tricks und Kniffe. Berlin.

Available online on:

www.institutfutur.de/transfer-21/daten/materialien/T21_ganztag2.pdf (State as of 12.07.2010)

Programm Demokratie lernen und Leben (Rheinland Pfalz):

Available online on: www.demokratielernenundleben.rlp.de (State as of 12.07.2010)

Sliwka, A./ Frank, S. (2003): Service Learning – Was ist das?

Online on Internet: www.blk-demokratie.de, Demokratie-Baustein „Service Learning“ BLK-Programm „Demokratie lernen & leben“ (State as of 25.07.2003)

Links

www.eco-schools.org

www.fee-international.org

www.umwelterziehung.de

www.zelenaskola.sk

www.transfer-21.de

www.bne-portal.de

www.blk-demokratie.de

www.partizipation.at

www.demokratielernenundleben.rlp.de

www.kinderpolitik.de/methodendatenbank/uebersicht.php

www.alexander-von-humboldt-gymnasium.hamburg.de

www.ev-schule-zentrum.de