



SYSTEMS AND PROGRAMMES

Mainstreaming occupational safety and health into education

Good practice in school and vocational education



European Agency
for Safety and Health
at Work



Mainstreaming
occupational safety
and health into
education: good
practice in school
and vocational
education



European Agency
for Safety and Health
at Work

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We need to focus our efforts on educating the workforce of tomorrow, by ensuring that schools integrate OSH issues in the curricula from an early age with a view to making young people aware of the problem and changing the attitudes of future generations.

Bernhard Jansen, Directorate-General
for Employment and Social Affairs

Special efforts have to be made to bring this report on the agenda and to the attention of the authorities as well as to the school directorates. It may inspire the authorities to undertake appropriate actions.

Hector Smeesters, Ministry of Education
of the Flemish Community

PREFACE

The safety and health of tomorrow's workforce is dependent on the 'mainstreaming' or integration of occupational safety and health (OSH) into education today. Children and adolescents need to learn about safety and health at an early stage of their education so that they can carry these ideas forward into their future working and private lives.

We know now that we cannot afford to wait until they enter the workforce. Why? Because research shows that accidents continue to be the main cause of death among children, teenagers and young adults in most of the highly industrialised countries and, worryingly, for young people aged between 18 and 24, the risk of an accident is 1.4 times greater than the average. Simply put, we need to sow the seeds of OSH sooner rather than later.

Also, using education to strengthen the prevention culture is one of the key objectives of the Community strategy on health and safety at work for 2002–06. To support this objective, the Agency's Administrative Board included in the Agency's 2003 work programme a study of examples of the successful integration of safety and health curricula, education systems and programmes. The aim of the report is not only to give a comprehensive overview of good practice and the lessons learned throughout the EU, but also to provide steps towards a coherent strategy on how to mainstream occupational safety and health into education at European level.

Therefore, we hope that this report will be useful for practitioners and intermediaries from schools and other educational establishments. It should also help policymakers to develop a systematic strategy on how to mainstream OSH into children's learning and the education system. To facilitate this process, the Agency has published an accompanying factsheet and a dedicated website including a special statistics tool for policymakers.

The Agency would like to thank the Agency Topic Centre Good Practice, Systems and Programmes, Veerle Hermans and Maureen Debruyne, Prevent Belgium, Kirsi Karjalainen from the Finnish Institute for Occupational Health (FIOH), and all of the organisations that contributed to this report for sharing their experiences. The Agency would also like to thank the national focal points and network groups and the Agency's expert group on education for providing important background information and for their invaluable comments and suggestions.

**European Agency for Safety and Health at Work
May 2004**

EXECUTIVE SUMMARY

How do you ‘mainstream’ occupational safety and health (OSH) successfully into education? To mainstream OSH into education means to integrate one policy area — occupational safety and health — into another — education. This means that different systems — with different institutions and different thinking — have to communicate with each other and to take joint action.

The European Union strategy on health and safety has identified education and training as key factors to strengthen the prevention culture. Education about health and safety does not start with entry into the world of work; it should be part and parcel of the school curriculum or a vocational subject in its own right (1).

The European Agency for Safety and Health at Work started its project ‘Mainstreaming occupational safety and health into education’ in 2002 with the slogan ‘Start young, stay safe’. The thinking behind the project is that the sooner children and young people get acquainted with the concept of safety and health, then the sooner they can develop risk awareness, and the better they can shape their own safety and health environment in their future working and private lives.

The report *Mainstreaming occupational safety and health into education. Good practice in school and vocational education* gives a comprehensive overview of good practice examples throughout Europe and outlines steps toward a systematic strategy to integrate occupational safety and health into education at European level.

The report is aimed at practitioners and intermediaries within the educational system, and policymakers and social partners both at Member State and EU level. It consists of three main parts: a description of good practice; an analysis of the key elements of a successful mainstreaming process illustrated within a model; and a road map for the future development of a coherent strategy to mainstream occupational safety and health into education at European level.

There is a general description of 36 good practice examples from Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, the Netherlands, Austria, Finland, Sweden and the United Kingdom. Of these, 14 examples are presented in detail as case studies. The report covers all stages of education until the end of compulsory education: kindergarten, primary and secondary school, vocational education.

As there is such a broad range of examples at different levels, with different organisations initiating the projects and different partners involved, the examples are divided according to **three approaches: a ‘holistic’ approach, a curriculum approach and a workplace approach.**

(1) European Commission, ‘Adapting to change in work and society: a new Community strategy on health and safety at work 2002–06’, COM(2002) 118 final, pp. 9 and 17.

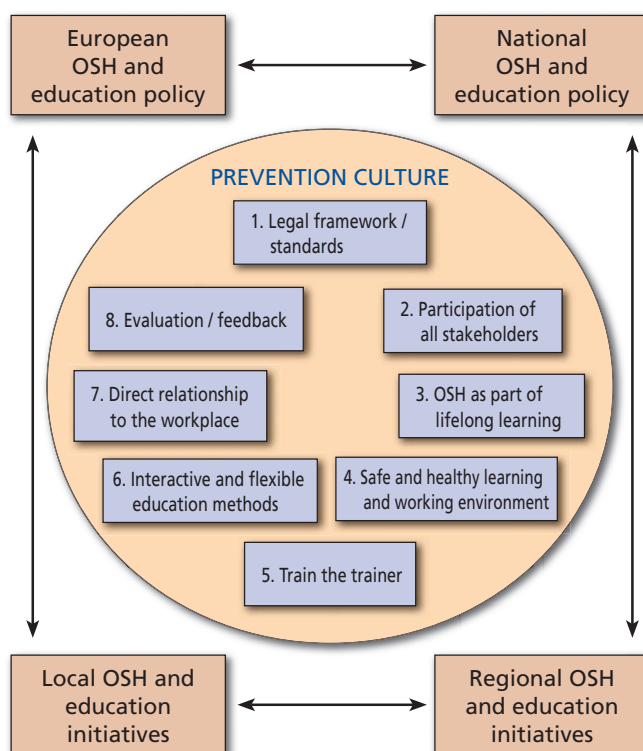
Case studies based on the holistic approach have a more comprehensive understanding of safety and health including physical, mental and social well-being. Furthermore, they focus on the whole school system addressing the 'school culture', the learning environment of pupils/students and the working environment of teachers.

The case studies that stress the integration of safety and health into the curricula do not limit safety and health to one specific subject. They advocate the integration of safety and health as a 'transversal' topic into the curricula, in other words through all levels of education and in different subjects, e.g. in languages and literature.

The workplace-approach case studies focus on the transition from school to working life, for example making students responsible for real safety and health matters in an enterprise, or raising awareness for future risks that will have to be dealt with at a general or sector level.

Based on these good practice examples of mainstreaming safety and health into education, in the second part of the report an outline of a model illustrating the most important elements of mainstreaming safety and health into education has been drafted ⁽²⁾:

Model of mainstreaming OSH into education

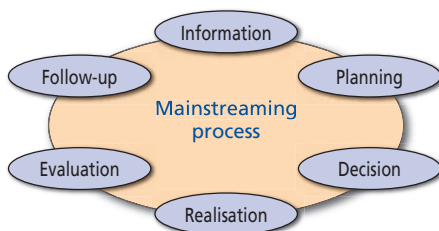


⁽²⁾ This model is based on the eco-holistic model of the health promoting schools.

In this model the key external influences on the mainstreaming of occupational safety and health into the education process are presented, as well as the internal elements that influence the promotion of mainstreaming within schools or other educational establishments.

This draft model is based on an analysis of a six-step process to mainstream safety and health into education. These steps come from another model that is often used for quality management and to organise project work in vocational education ⁽³⁾.

The process of mainstreaming OSH into education



The six steps — information, planning, decision, realisation, evaluation and follow-up — are linked together according to a logical order. Following these steps should improve the quality of the mainstreaming process and its results.

The third and final part of the report looks at the **Rome Declaration on mainstreaming OSH into education and training** announced by the Italian EU Presidency in October 2003. Among several recommendations the Rome Declaration emphasises the need for qualified and quantified goals to prepare children and younger people for working life and to improve schools and other educational establishments as workplaces. It calls upon European stakeholders, such as the European Social Affairs Council, Member States and social partners, to act together to address the issue.

The report concludes with a **proposal for a road map** which outlines the next steps of the Agency's project 'Mainstreaming occupational safety and health into education' until 2006. This proposal covers several initiatives to involve all stakeholders in the mainstreaming process (e.g. Directorate-General for Employment and Social Affairs, Directorate-General for Education and Culture, CEDEFOP and the social partners) and to support an active follow-up to the Rome Declaration.

⁽³⁾ This model is an open-loop system. The model was developed by Walter Volpert in the late 1970s.

Main conclusions from the report

The main results from the report can be summarised as follows.

- Safety and health have to be an inherent part of lifelong learning from pre-school education until post-retirement.
- Mainstreaming or integrating safety and health into education and training means to teach safety and health attitudes and behaviour to children and younger people and to improve the safety and health culture in schools or other educational establishments as workplaces.
- The Community strategy on health and safety at work for 2002–06 calls for strengthening the prevention culture and improving the quality of work by means of education and training. To meet this goal until 2006 it is necessary to define operational goals that qualify and quantify 'how' to prepare children and young people for future working life and how to improve the workplace for teachers and trainers.

Future activities

The Agency's project 'Mainstreaming occupational safety and health into education' will continue with data collection in the field of vocational training. Furthermore, the report, accompanying factsheet and dedicated website, including a new statistic tool for policymakers, will be widely promoted in 2004. Promotion will be especially addressed at the new Member States.

The main objective of the second meeting of the Agency contact group in June 2004 will be the need for common qualifications and competences in safety and health in vocational training at sector level. A possible outcome of the meeting should be the outline of an 'OSH passport' at sector level and an OSH passport for teachers and trainers as well. These activities and the follow-up to the Rome Declaration will form the basis of the European Week for Safety and Health in 2006, which will focus on youth.

1.



INTRODUCTION

The European Union strategy on health and safety at work underlines the necessity of strengthening the prevention culture by means of education, awareness training and anticipating new and emerging risks in order to maintain and improve the quality of work ⁽⁴⁾. Occupational health and safety has to be part of an integrated strategy to encompass all the necessary aspects of education, training, research and innovation for tomorrow's EU.

The aim of mainstreaming OSH into education

'Mainstreaming' is one of the new instruments of the preventive approach, making risk-management principles and 'thinking OSH' an intrinsic part of the way decisions are made and actions are taken at the workplace, so that occupational safety and health is not just an 'add-on'. It is easier to achieve this if workers and employers already come to the workplace well qualified and with an enhanced understanding of OSH — and with a developed risk prevention culture. Therefore, it is during the various stages of childhood, youth and early adulthood that education at all levels can play a key role in 'boosting' the prevention culture.

The Agency's project: a stepwise approach

Shortly before the European Union strategy on health and safety at work was adopted, the Agency started its project 'Mainstreaming occupational safety and health into education'. In May 2002 the Agency organised a seminar 'Learning about occupational safety and health' together with the Spanish EU Presidency and in cooperation with the European Commission. This seminar initiated the discussion about 'mainstreaming OSH into education' at European level. The Agency published the proceedings of the seminar, a Forum publication and a dedicated web feature on this topic ⁽⁵⁾.

The main conclusion of the seminar — 'to start safety and health awareness raising and education from an early age onwards' — was included in the final version of the Community strategy. Furthermore, speakers and participants of the seminar agreed on the need for a platform for OSH and education experts to meet together, to exchange experiences and to learn from each other.

This seminar was the **first milestone** of the project.

In the following year an Agency contact group 'Mainstreaming occupational safety and health into education and training' was set up, composed of OSH and education experts. The group consists of representatives from the EU Member States, the EFTA States, from the Employment and Social Affairs DG, the Education and Culture DG and representatives nominated by the social partners.

The first meeting of this group took place in May 2003 in Bilbao and discussed the outline of a future strategy to mainstream occupational safety and health into education. The conclusions of this seminar prepared the floor for the 'Rome Declaration on mainstreaming OSH into education and training' announced by the Italian EU Presidency on 3 October 2003. At the end of the

⁽⁴⁾ European Commission, *Adapting to change in work and society: a new Community strategy on health and safety at work 2002–06*, COM(2002) 118 final, p. 9 (Community strategy on OSH).

⁽⁵⁾ *Learning about occupational safety and health*, a seminar organised in Bilbao (4 and 5 March 2002) by the European Agency for Safety and Health at Work and the Spanish EU Presidency, in cooperation with the European Commission, *Proceedings*, 2002. (Learning about OSH) http://europe.osha.eu.int/good_practice/sector/osheducation/.

seminar ‘Mainstreaming OSH into education — The workers of tomorrow’ the participants agreed upon the key ingredients for a coherent strategy to mainstream occupational safety and health into education and training at European level.

The Rome Declaration was a **second milestone** on the pathway of mainstreaming occupational safety and health into education.

A **third milestone** is this report, drawing on a cross-section of case studies from around the EU.

The report

Aim

The report *Mainstreaming occupational safety and health into education. Good practice in school and vocational education* aims not only to give a comprehensive overview of good practice examples throughout Europe ⁽⁶⁾, but also to describe the next steps towards a systematic strategy to integrate occupational safety and health into education at European level.

Target group

The report should be useful for practitioners and intermediaries from schools and other educational establishments *and* for policymakers and social partners.

Scope

The focus of the report is on education, covering the primary level, secondary level and including vocational education.

Structure

The report consists of **three main parts**.

1. A description of good practice on how to mainstream safety and health into education in Europe.
2. A draft model describing the key elements for successfully mainstreaming safety and health into education. This model is based on an analysis of the mainstreaming process following the case studies.
3. The ‘Rome Declaration’ as a first step towards a European strategy on how to mainstream occupational safety and health into education and a proposal for a road map referring to the future development of this strategy and its implementation.

The first section (Chapter 3) contains 36 good practice examples, of which 14 examples are presented as case studies. The main findings of the other examples are presented in brief within a ‘snapshot’ category at the end of every chapter.

⁽⁶⁾ The examples described in this report come from: Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, the Netherlands, Austria, Finland, Sweden and the United Kingdom.

Criteria for selecting the case studies were:

- innovative examples;
- cases that demonstrate an effective (and preferably evaluated) integration of safety and health into education;
- cases that are maintained in the medium or long term (sustainable);
- cases that are transferable between Member States, or educational levels and institutions;
- cases that cover a broad range of educational institutions;
- cases from several Member States.



All good practice examples are divided according to three different approaches: a **'holistic' approach**, a curriculum approach and a workplace approach.

The case studies based on a 'holistic' approach have a more comprehensive view on safety and health including physical, mental and social well-being. Furthermore, they focus on the whole school 'system' addressing the 'school culture', the learning environment of pupils/students and the working environment of teachers (?).



According to the **curriculum approach** described in this report, the integration of safety and health into the curricula is not limited to one specific subject. Safety and health are integrated as 'transversal' topics, in other words throughout all levels of education and in different subjects, e.g. in languages and literature.



The **workplace approach** focuses on the last but important step in the educational process: the transition from school to working life. Several projects focus on the introduction of the students into the workplace, the steps to professional life and the risks that will have to be dealt with, at a general or sector level.

Differentiating between these three approaches helps to give a clearer picture within the broad range of examples at different levels, with different organisations initiating the projects and different partners involved. Nevertheless there is some overlapping between the approaches. For reference purposes, at the beginning of every case study, you will find a symbol that indicates the approach or approaches used.

(?) The term 'holistic' is used in this report as a common language term to indicate a broad approach to occupational safety and health, including physical, mental, and social well-being of children and young people.

In the **second part of the report** (Chapter 4) the process of mainstreaming occupational safety and health into education is analysed on the basis of the following sources:

- the good practice case studies within this report;
- the outcome of the Bilbao 2002 seminar;
- a draft of an internal report on mainstreaming OSH into education (2002); and
- the results of the first Agency contact group meeting (2003).

On this basis, a first attempt was made to create a model that illustrates the process of mainstreaming occupational safety and health into education.

The **third section of the report** (Chapter 5) describes the first steps towards a 'coherent' strategy of mainstreaming safety and health into education and training; a proposal for a road map that covers suggestions for an active follow-up to the Rome Declaration; and recommendations for further initiatives to support mainstreaming safety and health into education and training at European level.

2.



SHORT DESCRIPTIONS OF THE CASES

(a) Cases with a 'holistic' approach

'National healthy school standard', England

The overall aim of the NHSS is to help young citizens to become healthier and to be well prepared for future working life.

The 'National healthy school standard' (NHSS) provides a national accreditation process for education and health partnerships and supports the work of 'healthy schools programme' coordinators across England. The NHSS covers national targets and local action plans with operational targets coordinated at a regional and local level. In order to achieve a classification as a 'healthy school', schools must have achieved targets set by the local programme.

'The safe school', the Netherlands

The safety policy approach in schools must fit in with the educational development.

'The safe school' is a national campaign that focuses on increasing communication regarding safety (security) and violence in and around schools. Several instruments have been developed that encourage schools to analyse their own situation and to set up their own action plan regarding safety. The instruments can be adapted to the specific culture or atmosphere of each school.

FAOS ('Light in school safety'), Greece

FAOS is an excellent example of how a small number of single local actions can be built on and expanded to the national level.

FAOS is based on a stepwise participatory approach by voluntarily involving public and private organisations. Within the project comprehensive procedures for the health and safety assessment in schools have been developed. One main area of the project is training the trainers on safety and health, including first aid training.

The 'School environment round', Sweden

This programme seeks to make everyone feel a part of the school's development and have them participate in the improvement of the conditions at the school.

Against the backdrop of the Swedish Working Environment Act the project aims at making everyone take part in the school's development. The 'School environment round' method is based on working groups using a questionnaire and setting up an action plan for improving the working and learning environment in schools.

(b) Cases with a curriculum approach

'At the safety school', Italy

The process of integrating OSH into the syllabus can be seen as a spiral process: year after year OSH topics are tackled, studied in more depth and adapted to suit the new mental and emotional level of the student.

The teacher manual 'At the safety school' provides teachers with a conceptual and methodical framework to introduce OSH into the teaching syllabus. Safety and health education is understood as a process by which OSH can be applied to all subjects. A distinctive element of this project is the active participation of teachers within the development of the course model and a training process model for teachers who wish to apply the method.

'Examples of good practice to promote health and safety in primary school', Italy

Start young, stay safe!

Good practice examples of how to develop and disseminate teaching tools to promote a prevention culture at primary level, especially by introducing new and interactive methods, are described in this case study. The main aim is to involve the pupils so that they are able to acquire the necessary knowledge to implement effective prevention measures in their daily environment.

Splaat — ‘Safe play at all times’, England

The Splaat initiative is part of the ‘Laing Homes’ community programme’ and provides training packages. The initiative aims to raise children’s awareness of the dangers on building sites and to equip them with the knowledge to manage risks, for example by visiting construction sites and carrying out construction workshops at primary level.

Schools can select components and their level of involvement with the Splaat initiative.

The Armi project: ‘Ar and Mi at school’/‘New kids on the job’, Denmark

This case study covers a project for primary schools and a follow-up project reflecting the first steps of young people into working life. The project has been carried out against the backdrop of the government programme ‘Clean working environment’ and a broad range of partners have been included in the project. The education material conveys the message in a way that appeals to each targeted age group and a special teaching approach is used that guarantees an active involvement of the pupils.

Pupils must be able to make a positive contribution to their own health and safety and to that of their colleagues.

(c) Cases with a workplace approach*‘Preventing accidents to children and young persons in agriculture’, Ireland*

This Irish project deals with the work environment of a farm. A ‘Code of practice on preventing accidents to children and young persons in agriculture’ has been developed within the project. According to this code, on the one hand, farmers are required to develop a ‘safety statement’ and to carry out a comprehensive risk assessment. On the other hand, there are different initiatives providing schools with material for pupils and teachers. This material is directly related to the work on a farm.

The safety statement is based directly on the work environment of the farm as such and this makes it a very concrete, practical tool.

Synergie, France

The basic idea behind the Synergie project is to empower pupils or students by giving them proper economic and social skills within a company during their work placement. The pupils or students are given the responsibility of helping to improve health and safety in an enterprise. The project is based on statistical figures and a set of partnerships between public and private bodies. It started in the wood-processing sector and has been extended to the construction and public works trades, the graphics industry, and the car-body works and metallic structures sector.

The student gets a chance to take his or her first steps into the world of work, directly focused on the prevention of occupational hazards.

‘Students make machines safe’, Belgium

Vocational education in technical schools includes practising with machines. This project has been carried out in a school that found itself confronted with old non-compliant machines. The best solution was to adapt the existing lathes to the current standards. A risk assessment was set up together with the students and teachers, measures were discussed and the students themselves finally put the best ones into practice.

Students find that OSH is a reality and that they do have the means in their own hands to do something about it.

‘Check it out’, United Kingdom

The ‘Check it out’ video package is a response to the ‘Revitalising health and safety’ initiative’s call for greater provision of risk education for young people. The project concentrates on four sectors: catering, the music industry, hairdressing and on the workfloor in a factory. It is intended to introduce students to a range of hazards they may face in the work environment, how to

An experienced teacher developed the teaching resources.

recognise hazards, assess consequent risks and take steps to control the risks to themselves and others. It aims to provide teachers, who are unlikely to possess technical knowledge or expertise in risk assessment, with a pragmatic teaching approach.

'Young people want to live safely', Germany

This project aims to integrate OSH content into the curriculum of vocational schools. The project is carried out as a yearly competition focusing on different subject areas like electricity, noise, falls, dangerous substances, sitting/lifting/carrying, on the way to work, and health and safety aspects of computer work. By using a competition format with attractive prizes and by presenting the material in an entertaining way, the initiators try to reach the target group as effectively as possible.

The project has been running since 1972 with over six million participants.

'OSH integrated in curricular standards', Italy

In order to make OSH training in schools and vocational training centres more efficient, standard curricula in the building, electricity/electronics and mechanics sector have been screened within this project. Specific training modules have been developed according to the credit transfer training units' (CTTUs) architecture, as well as practical/hands-on tools to involve the students in training activities.

Modules devised according to CTTUs can be used to train individuals who work in different high-risk sectors.

3.



GOOD PRACTICE MAINSTREAMING OSH INTO EDUCATION

3.1. TOWARDS A SAFE AND HEALTHY SCHOOL: 'HOLISTIC' APPROACH

A long-lasting improvement in the safety and health of children ⁽⁸⁾ and young people ⁽⁹⁾ at and through school, or in other educational contexts, requires a preventive approach that covers:

- physical, mental, and social well-being, **and**
- the entire school as a relationship of organisational, individual and environmental components ⁽¹⁰⁾.

A 'holistic' approach to mainstreaming safety and health in school education aims at:

- creating or improving individual attitudes and perceptions of safety and health in school, **and**
- designing school as a workplace that is appropriate to the needs of pupils and teachers.

The thinking behind this is that a safe and healthy learning environment enables children and young people to achieve risk awareness and competences as early as possible to shape their own future working (and private) life, making it safe and healthy.

The following four cases highlight different aspects of this approach. The first case describes a national programme that provides an accreditation process for education and health partnerships at school; the second focuses on increasing communication regarding security and violence in and around schools; the third case describes the development of comprehensive procedures for the safety assessment in everyday schooling and in the surrounding school environment by developing public–private partnerships; and the last case introduces a concept to design the working and learning environment in schools.

⁽⁸⁾ Children are persons between approximately 3 and 15 years old. There is no rule for the first date; the second date is due to the end of compulsory school education.

⁽⁹⁾ Young people are between 15 and 18 years old, according to Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

⁽¹⁰⁾ Hundeloh, Heinz and Hess, Beat, *Promoting safety — A component in health promotion in schools*, Bundesverband der Unfallkassen, München 2001, p. 4 (German: GUV 57.1.1, available in English and French). The German concept of 'safety promotion' in schools is based on the WHO definition of health as 'a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity' (World Health Organisation, 1948). According to this concept, safety is an important component of health promotion in schools as far as 'injuries and traumas caused by accidents can seriously affect the different constituent parts of this state of well-being' (p. 1). A 'global approach to well-being at work' is also one of the three novel features of the European Unions strategy on OSH (Community strategy 2002, p. 3).

3.1.1. THE 'NATIONAL HEALTHY SCHOOL STANDARD', ENGLAND



Health Development Agency, London

Key points of this project

- To help young citizens to become healthier and be well prepared for their future working lives
- To provide an accreditation process for education and health partnerships
- National programme, with possibility for schools to adopt a programme suited to their situation

Introduction

The 'National healthy school standard' (NHSS) aims to build on the concept of 'the healthy school' in order to promote education in health and well-being and thereby support young people in improving the quality of their future lives. The standard provides an accreditation process for education and health partnerships and supports the work of 'healthy schools programme' coordinators across England.

Background

The concept of the 'health promoting school' evolved during the 1980s from developmental work undertaken by the World Health Organisation. Based on the concept of community health promotion, the NHSS was first proposed in the government Green Paper 'Our healthier nation', in 1998. At this time there were already a range of ad hoc, non-coordinated healthy school schemes in existence across England. The development phase, overseen by the NHSS national team, and based in the UK's Health Development Agency (HDA), involved research and consultation with stakeholders into existing healthy school schemes. Having identified models of good practice, such as 'effective

ways of working with schools', the scheme sought to develop a national standard that would provide the principles for future schemes, as well as a framework, and associated reference criteria, for a national accreditation.

At the core of the scheme is the desire to:

- recruit and retain all schools in England as participants;
- encourage a 'holistic approach' to education and health;
- encourage schools to become healthy schools by establishing and consolidating sustainable partnerships with other stakeholders;
- improve the health and well-being both of pupils and staff, as well as the wider community (e.g. parents, community groups and businesses);
- provide a standard based on principles of good practice.

Aim

The overall aim of the NHSS is to help young citizens to become healthier and to be well prepared for future working life.

The NHSS has three strategic aims:

- to reduce health inequalities;
- to promote social inclusion;
- to raise educational standards.

From the outset a target was set for all local education authorities (LEAs) and their health partners to be involved in an accredited healthy schools programme by March 2002. Having achieved this target, the Department of Health (DH) and the Department for Education and Skills (DfES) ⁽¹¹⁾ have agreed on new national targets for the healthy schools programmes. Targets that focused on the development of a national NHSS infrastructure have been replaced by operational targets that aim to ensure that:

- all schools in England continue to be provided with the opportunity to access the services of a nationally accredited regional healthy schools programme, 2003–06;
- participating schools should aim to reach one of three levels of attainment, and aim to attain level 3:

Level 1: schools should know about and understand the benefits of involvement;

Level 2: schools have accessed initiatives provided by the programme;

Level 3: schools have accessed initiatives and undertaken a process of target setting and action planning. This is the most intensive level of involvement. To achieve level 3, schools have to demonstrate evidence of impact in relation to a range of criteria drawn from the NHSS ⁽¹²⁾;

⁽¹¹⁾ Department for Education and Skills (DfES), *How the national healthy school standard contributes to school improvement*, 2003.

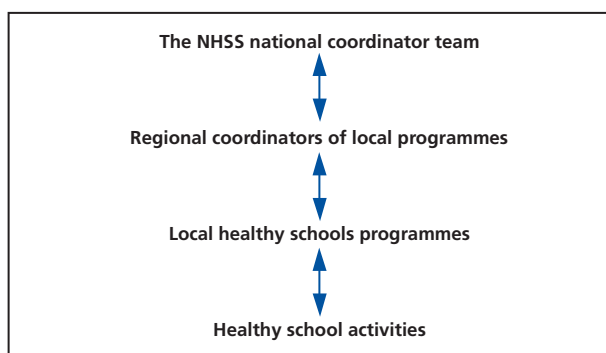
⁽¹²⁾ National healthy school standard (NHSS), *Confirming healthy school achievement*, 2003, p. 3.

- all schools with greater than 20 % of pupils from lower income families (approximately 7 000) should achieve NHSS level 3 status (the highest level) by 2006.

Scope

The NHSS was launched in October 1999. It is jointly funded by the Department of Health (DH) and the Department for Education and Skills (DfES). The standard is being actively promoted by a team of national advisers at the HDA, nine regional NHSS coordinators in each government office region, and at a local level by education and health services' partnerships. To date, 14 000 schools have accessed support from the scheme.

The NHSS is designed to operate at four levels:



National coordinators

The national coordinating team is responsible for developing the national quality standards for local healthy schools programmes ⁽¹³⁾.

The standard is comprised of three components — **partnerships, programme management and working with schools** — for which there are a range of activities that local programmes must undertake to achieve accreditation. For example, as part of the standard requirement for partnerships, local healthy schools programmes must be able to demonstrate involvement of school staff, pupils and community groups in the planning, delivery and evaluation of activities.

The process of accreditation has ensured that programmes are rigorous and consistent, that they are based on sound, sustainable and well-tested principles and are providing effective services to schools.

Regional coordinators

The coordinators have to provide leadership in helping to build capacity and capability at local level to support education and health partnerships in addressing the national target. They have to manage business-planning meetings that will include the monitoring of school targets and sharing of evidence of impact in schools.

⁽¹³⁾ Department for Education and Skills (DfES), *National healthy school guidance*, Nottingham 1999 (DfES, 1999).

Local healthy school programmes

There are more than 150 local healthy schools programmes in existence across England. Each programme comprises a partnership between local education authorities and health services, and is responsible for recruiting schools and providing the kind of support that might help them address health education issues.

Based upon the principles of a holistic approach, the support typically includes:

- guidance on leadership and managing change;
- assistance with staff professional development (e.g. quality assured training);
- assistance with the development of school policy and culture;
- support with pupil, parent/career and local community involvement;
- advice on curriculum planning and implementation;
- assistance with identifying targets and assessing the impact of activities.

Each programme applies a flexible approach, whereby schools are able to address salient health issues in their locality in addition to working on eight specific themes, including drug education, emotional well-being, healthy eating and safety.

School activities

In order to achieve classification as a 'healthy school' under one or more of the eight themes, schools must have achieved targets set by the local programme. This process is designed to be ongoing: schools are expected to build on any achievements and make progress towards additional targets and focus on new themes.

Results

Evaluation is an integral part of the NHSS accreditation scheme. Assessors draw upon a combination of quantitative and qualitative evaluation methods (e.g. questionnaires completed by schools and local partnerships, examination of policy plans and observations carried out within schools) and progress is compared against the NHSS guidance objectives⁽¹⁴⁾.

Evaluation of both the local healthy schools programmes and the individual school activities provides evidence of how the standards and components of the NHSS guidance are being met:

- by April 2002 every healthy schools programme, led by a local education and health trust partnership, had successfully been through a process of national (NHSS) accreditation;
- 8 000 schools in England have identified healthy schools work in their school development plan, set targets, are accessing support and are monitoring the impact of their activities.

⁽¹⁴⁾ DfES, 1999.

An independent review of government school inspection reports found evidence of positive impacts for schools involved in the NHSS:

- overall effectiveness in over four out of five primary schools and 50 % of secondary schools were rated as 'good' or 'better' than the national average;
- almost two thirds of primary schools and 37 % of secondary schools have made 'good' or 'better' progress since their last government inspection;
- participating primary and secondary schools are making improvements at a rate faster than non-participating schools, in a number of key areas, including behaviour, standards of work, quality of the personnel, the social and health education programme (PSHE) and management and support of pupils.

The NHSS is currently undergoing external evaluation. The Department of Health and the Department for Education and Skills have commissioned the National Foundation for Educational Research and the Thomas Coram Research Unit to carry out the evaluation, which is due to report early in 2004. The evaluation will build on the criteria for level 3 attainment, in order to provide indicators for future improvement.

Problems faced

Based on evidence provided by survey respondents, an audit of existing NHSS practice identified a number of problems that have resulted in sub-optimal outcomes:

- (i) pressures due to shortages of teaching staff (identified by 46 % of respondents);
- (ii) initiative overload in schools (31 %);
- (iii) lack of time to implement the scheme (18 %);
- (iv) a minority of respondents (10 %) cited a lower than desirable profile for healthy schools work, and recommended the continuing need for a strong national guidance from the relevant government departments;
- (v) concerns were expressed by coordinators that the involvement of school governors and parents remains uneven — both of these groups are difficult to involve. It was concluded that more work is required to support local programmes in encouraging the involvement of these key groups ⁽¹⁵⁾.

Factors of success

Respondents were asked to name three factors that had assisted progress. Six principal items emerged:

- (i) the presence of good partnership working between health and education services (36 %);
- (ii) presence of good quality staff (35 %);
- (iii) dedicated funding (30 %);

⁽¹⁵⁾ Rivers, K., Chase, E., Knight, A., McCallum, B., Tyrerand, P. and Aggleton, P., *One year on: a national audit of activities linked to the NHSS*. Report prepared by the Thomas Coram Research Unit, Institute of Education, University of London, 2001.

- (iv) enthusiasm of teachers (29 %);
- (v) support of the national coordination team (24 %);
- (vi) the sharing of good practice (15 %).

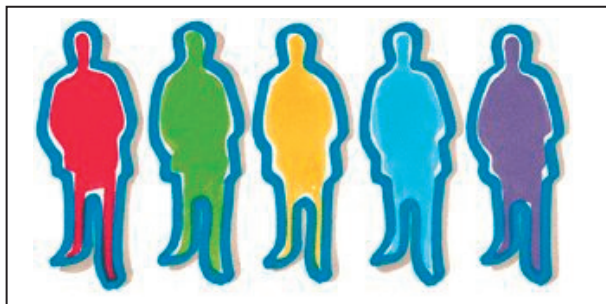
Transferability

- (i) Assuming sufficient resources are available to meet the necessary development and operational costs, similar schemes could be adopted in a wide range of national settings.
- (ii) The employment of full-time national and regional coordinators dedicated to the scheme appears to have constituted a key element in the success of the project.
- (iii) The successes of this scheme was, in some measure, dependent on local education and health trust partnerships developing and maintaining effective communication links with schools and other health organisations. The use of equivalent networks would constitute a valuable asset were this project to be repeated in other national contexts.

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3.1.2. 'THE SAFE SCHOOL', THE NETHERLANDS



APS, National Centre for School Improvement, Utrecht

Key points of this project

- To increase communication regarding security and violence in and around schools
- To support secondary schools in implementing a security policy for students and teachers
- To develop instruments for making schools safe that can be adapted to the specific school culture

Introduction

'The safe school' is aimed at all people involved in the promotion of safety (security) at secondary schools. Instruments have been developed as examples that can be adapted to the specific school culture. The starting point of each project is a self-monitoring exercise or diagnosis to encourage schools to analyse their own situation and to set up their own action plan regarding safety.

Background

The Ministry of Education, Science and Cultural Affairs set out the contours of a new campaign in the brochure 'The safe school' (June 1995), after an investigation concerning bullying and violence amongst children in schools. It was stated that the activities in schools should fit in with the integral youth and safety policy being implemented by municipalities. Extra resources were made available by the Ministry of Justice, Ministry of Transport, Public Works and Water Management, and the Ministry of Education, Science and Cultural Affairs within the framework of the covenant with the big cities. The coordination was done by the process management company Voortgezet Onderwijs (secondary education management). The campaign ran between 1995 and 2000.

The main issues of the safety policy mentioned in this project are:

- to ensure social ties: learning to get on with each other;
- to deal with disasters in a systematic and expert manner;
- to ensure safe facilities in the building and surrounding area and the safe use of these.

The safety policy approach in schools must fit in with the educational development. The educational innovation that people in secondary education are working towards concerns the following three — closely interwoven — cores:

- broad development of all the students;
- an active role for the students;
- respecting the differences between students.

Aims

What are the main goals of the project?

- (i) Increasing communication regarding security.
- (ii) Ending the taboo of silence concerning violence at and around schools.
- (iii) Supporting secondary schools in the implementation of a specific security policy for students and teachers.

The instruments that have been developed to make schools safe can be adapted to the specific culture or atmosphere of each school.

This diagnosis aims to encourage schools to analyse their own situation and to set up their own action plan regarding safety.

Scope

The campaign is particularly focused on policymakers in schools, support staff, departmental trainers and suppliers of materials. At the same time, it also deals via these intermediaries with all those who are actively involved in safety policy: students, teachers, ancillary staff, parents, head teachers and school governors.

The campaign was started in secondary education but is now also focusing on primary education and on the vocational training and adult education (BVE) sector.

The starting point of each project is a self-monitoring exercise or diagnosis. To facilitate the development of an integral safety policy in schools, a quick scan analysis has been developed for the diagnosis.

- (i) What is our starting situation?
- (ii) What changes do we want to bring out?
- (iii) How are we going to work and what instruments are we going to use?
- (iv) What results do we expect?

Furthermore, several other instruments have been developed that serve as examples. The school itself chooses materials and working methods that fit its situation and development.

When using these instruments, the following criteria have to be taken into account:

- (i) integration of the instruments into school development and other themes;
- (ii) active role of students in the setting up and implementation of the instruments;
- (iii) measuring and following: showing the point of departure and the changes and effects (e.g. increased sense of security and clear reduction of minor and major violent incidents);
- (iv) demand-driven supply: tailored to the school and flexible in application;
- (v) the instruments for department internal trainers and support staff must be concrete, compact and user-friendly;
- (vi) training and maintaining social skills;
- (vii) good guidance of students within and outside the lessons;
- (viii) clear school rules supported by all.

Examples of instruments

Quick scan analysis

This is a questionnaire that has to be filled in by the head teacher. It includes four topics:

- Vision: questions on strategy and policy regarding formulation and realisation of goals (e.g. 'How is the prevention strategy in our school?'). The following answers can be given: good, needs improving, needs changing/developing.
- Culture: issues regarding learning from each other, inequality, communication and professional attitude (e.g. 'Activities are organised to improve the social relations between the school and the students').
- Systems: clear rules on behaviour, school and class procedures, problem solution strategies (e.g. 'Are there clear procedures for unsafe situations mentioning who is responsible and how to deal with the situation?').
- Structure: clear tasks and responsibilities of all people involved (e.g. 'Are we taking into account the involvement of a student team that thinks and gives propositions on increasing safety at school?').

Thermometer: a sense of security

Knowing how safe everyone feels in and around the school is important when starting to integrate a safety policy. 'The safe school' offers a questionnaire for measuring three things at the same time:

1. How safe do students and staff feel?
2. How do parents see the safety of their children at school?
3. With which forms of violence have people been confronted in and around the school?

Top-ten safety list

In addition to the thermometer, a top-ten safety list can be used to involve the students, the parents and all members of staff in the safety policy. 'The safe school' offers an example, but it can be adapted to the situation of a specific school, by involving all parties and asking for their own safety list.

Guide

Models, successful examples and suitable training examples are presented in an extensive guide. A video, handbooks and scenarios for use in various school situations are provided. Furthermore, there is an education helpline that can be used for a number of related campaigns, such as *Voortijdig schoolverlaten* ('Leaving school early'), *Weer samen naar school* ('Back to school together') and *Samen school maken* ('Making school work, together').

Developing materials and working methods costs a great deal of money, expertise, time and energy. For this reason, the large municipalities can jointly contribute a part of the budget for the national development of tools. If many actors around the school have their own role and their own point of view, there is a danger that they will make conflicting demands on schools. It would therefore appear sensible to start together from the same point together when initiating school development.

Results

In the period November 1999 to March 2000, the Ministry of Education, Science and Cultural Affairs dedicated a large national study to the safety of schools and the behaviour of students in secondary schools. In this study, questions were also asked regarding the campaign 'The safe school' to evaluate if the campaign had had a positive effect on the social behaviour of students and if the campaign resulted in a decrease of bullying and violence at the student level. In total, 60 schools, 291 teachers and 9 948 students filled in the questionnaire. The results of the evaluation are published in a document that can be obtained from the contact address (*Veilige scholen en (pro)sociaal gedrag in het voortgezet onderwijs*, ITS, Wetenschap voor beleid en samenleving).

According to the head teachers, there is an increase in the three main issues of the safety policy mentioned in the campaign compared with the situation before 1995: ensuring social ties, dealing with disasters, and ensuring safe facilities. However, it is difficult to say whether this is due to the safety policy alone. As important drivers for the increase in the safety policy of schools, the managers mention: the new 'Arbo'(working environment) law which stipulates the development of a safety action plan, practical personal experiences in the school, and new educational developments in general. Thirty-three per cent mention that the campaign itself has contributed to the increased safety situation in the school. Regarding the instruments, the most often used are the videotape (11.5 %) and the education helpline (8.3 %).

According to the teachers, the increased focus on safety in the schools has been heightened by the combined effect of the campaign, a specific anti-bullying campaign organised by parent organisations and the media coverage. However, no changes to student behaviour were found between 1991 and 2000. No differences were found regarding bullying between students themselves and between students and teachers. Violent behaviour of students also remained the same.

Problems faced

Although the campaign contributed to increased safety awareness in schools, the developed instruments are not often used. Furthermore, communication regarding safety and security increased but student behaviour has not changed over the years. Ten recommendations have therefore been formulated to tackle these issues in the future. Seven recommendations are specifically aimed at the school level, of which the last three involve the government.

- (i) Distinguish between 'actual' antisocial behaviour and measures, 'possible' behaviour and preventive measures, and measures to promote 'pro-social' behaviour.
- (ii) Concentrate the preventive attention on the promotion of pro-social behaviour.
- (iii) Create measurable school and environment conditions that can substantially improve the pro-social behaviour of students.
- (iv) Create transparent, key learning structures to support all students.
- (v) Daily development and learning processes in and around schools should support every student.
- (vi) Institutional learning and changing processes may need to be developed.
- (vii) Evaluate the starting characteristics of each student and carry out prevention immediately, if necessary.
- (viii) Support each child as much as possible in his/her own group or class, and make use of ICT.
- (ix) Carry out integration with youth care and other linked disciplines, as well as through interdepartmental working groups.
- (x) Support 'good practices' at each education level: these can also be learning opportunities for other levels.
- (xi) Empirical longitudinal research is necessary to evaluate continuously the developed practices and to support a further optimisation specifically for the children at risk.

These recommendations are further explained in the document mentioned above.

Factors of success

The campaign has contributed to increased communication on security in schools, together with other initiatives. In and around schools conditions are created to make it possible to react efficiently when confronted with unsafe situations, e.g. the appointment of persons of confidence, the establishment of complaints procedures, and intensive collaboration with external professionals.

Transferability

Information regarding this project is available in English on the website, although the instruments are only available in Dutch.

Putting the emphasis on school atmosphere indicates sensitivity regarding the involvement of people. The project is based on the contribution of all parties involved, with the cooperation of specific people. Therefore it is possible to implement the project in all kinds of different cultural, economic or social environments.

Further contact

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3.1.3. FAOS ('LIGHT IN SCHOOL SAFETY'), GREECE

Preventive Centre of Occupational Risks in Western Greece



Key points of this project

- Collaboration among different authorities with a common aim (involvement of public organisations, private organisations, schools and the local community)
- Stepwise, participatory approach
- Involves training the teachers

Introduction

FAOS is a project that aims at building awareness around the issues of school health and safety among both pupils and staff, during everyday educational processes, not only in the school areas but also in the surrounding school environment. It focuses on training the teachers of primary and secondary schools as well as educating the students themselves.

Outcomes to date include the training of teachers on health and safety issues and relevant instruction methods, the establishment of alliances for the promotion and protection of safety and health among the authorities, industry and local communities, guidance and books on health and safety, a diagnostic survey for use in schools and guidance on first aid.

Background

The initiative is supported by the Directorate of Secondary Education in the Prefecture of Achaia, the Preventive Centre of Occupational Risks in Western Greece and the Industrial Association of Western Greece. It adopts a stepwise

approach and has been running since 2001. Other than the organisations mentioned above, the project includes the active participation of directors of primary and secondary schools, teachers, the University of Patras and the local community.

According to the 1999 annual report of the Greek Ministry of Health, 25 % of the accidents reported occurred at school and involved children between 5 and 14 years old. On the occasion of the World Day for Occupational Health and Safety in October 2000, the idea of introducing a pilot project aiming at the prevention of accidents at school and the promotion of children's safety was launched. The cooperation partners decided to unite their forces in order to implement this programme in the most effective way: by applying their knowledge and expertise in the field of health and safety and exerting their influence on the educational environment and local society. FAOS is a local voluntary activity, outside the schools' structural operation. Representatives of the cooperating organisations met on 4 April 2001 in order to decide on the objectives and the priorities of a programme that would focus on health and safety at school. This became the coordinating team. A stepwise participatory approach was applied, since such initiatives were uncommon in Greece.

At the present time, this initiative is a pilot programme in the Prefecture of Achaia, and is supported by the voluntary involvement of both public and private organisations. The intention is to expand the programme to other geographical areas in Greece with the support of the Regional Directorate for Education.

The innovative characteristic of the action is the collaboration between private and public organisations. This gives the different partners the opportunity to benefit from each others' experiences and expertise, and to have a broader scope of aims and objectives for the benefit of the whole community. The different partners would also provide opportunities for stronger financial support for the initiative.

Aims

The main goal of the initiative is to promote and ensure the health and protection of school pupils in everyday schooling and in the surrounding school environment, by raising awareness of the issues of school health and safety among pupils/students and school staff.

The objectives of the programme are:

- (i) to have more comprehensive procedures for the assessment of the safety of school buildings (in terms of the building maintenance, 'friendly' school yards, and safer traffic school entry points);
- (ii) to effectively raise awareness of school health and safety issues.

To meet these objectives, the team worked cooperatively with school administrators, teachers, parents, students and community groups, involving everyone in the process.

Scope

The starting point of the initiative was the formation of a coordinating committee comprising four partners/participants. The programme developed with the steps outlined below.

The first steps of the initiative were as follows:

- (i) the design of a special diagnostic survey for use by heads of secondary schools, which focused on possible hazardous situations at schools. It was completed by all heads of schools in the Prefecture of Achaia (June 2001);
- (ii) the results of the questionnaire were complemented with a programme of qualitative assessment of health and safety issues in 13 school buildings (June–July 2001);
- (iii) a core group of 14 teachers attended a training programme on health and safety issues in schools (September 2001);
- (iv) a meeting was held for head teachers of schools (65 in total) to evaluate the activities of the first stage and to set new actions and priorities (October 2001).

In November 2001, the training programme for teachers was scheduled to run in a total of 120 secondary level schools at the Prefecture of Achaia. The aim was to obtain multiplicative action and also to ensure that all target schools had a representative responsible for health and safety issues.

An open event was organised for the local community in December 2001, to which the local press, private companies and various unions and associations were invited. A significant outcome of the event was the extension of the programme to primary schools in the area with the involvement of the Directorate of Primary Education in the Prefecture of Achaia.

During the 2002/03 academic year, the programme included the training of 30 teachers of primary level schools, considering that this kind of expansion would be very helpful for its primary objectives. Students were involved in the initiative and learned about OSH through health and safety actions under the programmes 'Health education' and 'Environmental education' in the curriculum.

Fourteen private companies financed and carried out a programme for repairing school buildings and improving school environments. The repairs were carried out during summer 2002 with the collaboration of the municipalities and local authorities.

The organising committee was recognised as a legal entity in March 2002 under the name of FAOS. The director of FAOS is the Vice-Chancellor of the University of Patras.

Results

The initiative during the 2002/03 academic year included:

- (i) further training of 40 teachers on health and safety issues and instruction, including first aid training;
- (ii) development of a number of guides and books that include good practices and examples in health and safety issues, based on certain occupational environments;
- (iii) more methodical use of the core group of 14 teachers for the development of publications and other information material, events, creation of a library, seminars and school visits, etc.;

- (iv) development and distribution of flexible educational material that can be adapted to different educational environments;
- (v) collaboration with the Directorate of Primary Education in the Prefecture of Achaia;
- (vi) expansion of collaborations: involvement of the academic community, parents' associations, social and scientific associations, etc.

Concrete products of the initiative also include:

- (i) a number of guides and books that include good practices and examples on safety and health topics, based on certain occupational environments;
- (ii) a diagnostic questionnaire for use by the safety and health representative (normally a school teacher). The questionnaire helps a non-expert person to find out step by step all the possible hazardous situations in the school environment;
- (iii) first aid guide.

The initiative was received with enthusiasm and interest from all participants. The organising committee succeeded in creating a collaborative group that consisted of representatives of the community (private and public), parents, local industry, school administrators and pupils. They succeeded in bringing together knowledge and expertise from all these different partners, as well as obtaining financial support. They also succeeded in creating a sustainable and multiplicative system of health and safety education.

The evaluation of the project is an ongoing procedure. Evaluations were carried out at meetings after the first stage of the programme (October 2001) and before the start of the 2002/03 academic year in order to discuss priorities for the future. In 2002, a detailed qualitative evaluation was made on the survey results for a certain number of secondary level schools. The FAOS association assisted the schools financially in order to achieve a high level of safety and health. Finally, the coordinating team has held meetings with the heads of the participating schools in order to keep track of the ongoing process and effectiveness.

The increasing involvement of partners, including the Ministry of Education and the business community, is an evaluation in itself, and shows that the initiative has been received positively and should be continued.

Problems faced

Communication with the schools should be a continuous process in order to keep track of the progress and any problems arising. As with any participatory projects, the coordinating committee needs to be prepared with strong arguments in order to present the case for the implementation of the project and the involvement of the various stakeholders. Finally, the actions of FAOS are supporting or reinforcing, and do not aim at substituting the existing health and safety actions and programmes in education.

Factors of success

The initiative has succeeded in involving all possible partners for safety and health in schools. It adopted a stepwise participatory approach, and built on the resources as the support and activities increased. FAOS is an excellent example

of how a small number of simple local actions can be built on and expanded to the national level.

Specific success factors include:

- commitment from the initiators of the project;
- simplicity of the actions:
 - educating the teachers,
 - producing information packages,
 - assessing health and safety issues,
 - allocating responsibilities to the school unit (heads of schools, safety and health representatives);
- allocation of responsibility and communication among the community.

Government and industries helped to create a sense of ownership of the project and the resulting sustainability.

Transferability

The key points of 'collaboration among different authorities with a common aim', 'having a stepwise, participatory approach', and 'teacher training' can be applied to other similar initiatives focusing on health and safety education, in other cultural, economic or social environments. It is important to assess the resources, strengths, and potential support from the community before starting such a project.

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3.1.4. THE 'SCHOOL ENVIRONMENT ROUND', SWEDEN



National Institute for Working Life, Stockholm

Key points of this project

- To make pupils aware of the importance of the work environment and their own responsibilities
- Participatory approach

Introduction

The purpose of the National Institute for Working Life was to develop an instrument called the 'School environment round' for controlling and improving the working environment in schools, in accordance with the Swedish Work Environment Act. It is a lifelong education process that makes everyone, especially the students but also the staff, aware of the risks they can encounter and how to prevent these; the aim is to know how important a good working environment is and be aware of the hazards to health.

Background

The Swedish Work Environment Act points out that everyone shares responsibility for conditions at the school. This act includes the pupils in the same way as the employees. Therefore it is stated that the Swedish school is the largest workplace in the country with its 200 000 employees and 1.5 million pupils.

The National Institute for Working Life and the Local Educational Authority of Nacka wanted to create an instrument that:

- makes everyone feel part of the school's development;
- leads to an action plan for improving the work environment.

To create this instrument, interviews with pupils and representatives from all categories working in schools were held. Based on these interviews a questionnaire was developed that was tested in 15 schools. Adaptations were made and the checklist has been used since around 1995–96 in Swedish schools.

Aims

The project intends:

- to allow students, staff as well as the parents to participate in the working environment policy of the school and to teach them to be responsible in a democratic way;
- to set up, implement and evaluate an action plan for the improvement of the school environment.

The general aim of the project is to start discussions on the work environment. It seeks to make everyone feel part of the school's development and have them participate in the improvement of the conditions at the school. It is a lifelong education process that makes everyone, especially the pupils, aware of the risks he/she encounters or creates for him/herself and enables him/her to play a part in preventing those risks. When the pupils are ready for working life they will bring in the awareness of how important a good working environment is and be alert to health hazards.

The school should be a good learning environment, in which students are encouraged to develop. Instruction, participation and the working environment should go hand in hand. Protection of the common environment, of democratic working methods and people's inherent value, and of good health and development are values common both to the Education Act and the Work Environment Act.

The material that is distributed is of the self-instructional type so each school can decide how to use it to fit its own culture. Since the material is flexible, questions can be withdrawn or added, which makes it possible to adjust to other countries.

It is also a model for ongoing follow-up to the work environment, as the 'School environment round' is meant to be performed regularly.

Scope

The starting point of the 'School environment round' is the formation of a working group, which should include at least the principal, the safety representative and the student representative. The following steps should be followed:

- (i) Planning: Decisions on how to carry out the round, e.g. use the material during a special theme day, during certain lessons or homework and set clear deadlines. The staff should work with the material first so they are familiar with it.

- (ii) Communication: Everyone should be informed about the programme to create acceptance. Information should be given on why the round is being carried out, what the responsibilities of everybody are, what the work will lead to and how it is going to be done. Information can be given on important issues for students regarding the working environment (psychosocial aspects, physical environment (noise, light and air), fire safety, ergonomics, allergies etc.) ⁽¹⁶⁾.
- (iii) Distribution and analysis of the questionnaire: Each participant fills in the questionnaire separately and the results are brought together during the group work. An average is calculated for each question and the environment profile is created. From this profile, priority areas are identified. The checklist was used on two occasions, with an interval of one year. Complementary information on the state of pupils' health and negative efficiency were gathered on each occasion.
- (iv) Discussion in small groups: To work out suggestions for improvement and to describe the necessary conditions for carrying them out.
- (v) Set-up of an action plan: An action plan must be drawn up for the matters that are not taken care of immediately. It is a written document that includes measures, costs, timetable and delegation of responsibility for implementation.
- (vi) Implementation.
- (vii) Follow-up and evaluation.

It is not known how many schools have used this tool up to now.

Results

Many letters were written from schools with complaints on the time needed to fill in the questionnaire. Therefore, an electronic tool on the web was created that schools can use free of charge.

This electronic version makes it very easy to fill in the questionnaire and answers are automatically put together so no manual counting, averaging etc. has to be done. It is very easy to understand and to analyse the results. Furthermore, results are saved in a database so in the near future it will be possible to check whether the work environment in schools really has improved over the years.

The model may initiate discussion processes and intervention activities among pupils and it is clear that pupils are an important resource that should be used when addressing the school environment.

Problems faced

The main problems are the following:

- (i) necessary time to fill in the questionnaire and to analyse it (has been solved with the electronic tool, see above);
- (ii) time for personnel and pupils to discuss issues/solutions is necessary, but this can take a very long time;
- (iii) resources for the proposed solutions must be available;

⁽¹⁶⁾ See brochure: <http://www.skolliv.nu>.

- (iv) raising awareness among the staff so they set aside sufficient time to deal with the subject.

Factors of success

Students and staff usually feel that the questions in the questionnaire are important and meaningful. They claim that they feel connection with their workplace and that they are part of a democratic process. The awareness grows that they themselves create the work environment.

The relations in school improve and they become aware of the importance of behaving properly with others in order to achieve a good working climate.

Transferability

The questions are constructed in such a way that they fit in with participatory discussions in the school, and a commitment towards, and knowledge of, the work environment issues is created. This can also be applied to other countries, after having adapted the questions to their own culture/politics.

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The above-mentioned cases are not the only examples. The list of 'snapshots' at the end of each chapter presents other good practices, described in a nutshell.

'Snapshots' I

'Safer primary schools' project, England



Lead organisation

The National Health Service's national research and development programme

Aim

To reduce injuries in school, sports and leisure environments, by holding interventions and measuring the effectiveness of the interventions.

Key elements

- The involvement of representatives from the broader school community: pupils, parents, staff (teaching and non-teaching), an Injury Prevention Advocate and governors at each stage of the process (whole school, holistic approach)
- A combination of approaches was used: training events for staff ranging from general support meetings to seminars; education through both formal and informal curricula; development of school policies; modifications to the school environment
- Pressure on teachers' time was reduced by funding so that staff could be released from some of their teaching commitment in order to plan and develop the intervention programme

'Risikomomenter', Denmark



<http://www.risikomomenter.dk>

Lead organisation

Working Environment Council of the Danish research and education sector

Aim

To provide in-depth knowledge on how to avoid accidents, to ensure a safe working environment in the library, by using a computer, or when using chemicals, and to provide specific safety measures.

Key elements

- An extensive guide of nine different subjects for teachers involved in risk-filled activities at a high school level. It is equally useful for safety organisations, principals and other professionals working with safety in the classroom
- A chapter pinpointing the laws and responsibilities of all the parties involved, thus giving useful tools for everyone involved in safety work at the school
- The website has been evaluated by both users and professionals and has been updated to its present and very user-friendly design. Furthermore, Arbejdstilsynet, the Danish national working environment authority, has approved it as consistent with their recommendations

'Towards an accident-free school', the Netherlands



<http://www.veiligheid-op-school.nl>

Lead organisation

Consumer Safety Institute

Aim

To create the conditions for a safe school building and learning environment, while at the same time encouraging teachers and pupils to behave safely. The strategy centres on the child and combines five elements of safety policy: inspections, school rules, evacuation plan, accident registration, and safety reporting.

Key elements

- Provides an integrated and structured approach to physical safety in schools
- Puts children first
- Takes everyday school practice into account, making the strategy practical and easy to implement
- Offers opportunities for making safety issues easy to discuss with the various stakeholders in and around the school

'Safe practical courses', the Netherlands



<http://www.aps.nl/natuurenteknik/arbo.html>

Lead organisation

APS (consultancy bureau for the education sector)

Aim

To teach students to develop rules for safe practical courses.

Key elements

- Students learn risk situations and how to prevent these using several tools (posters, worksheets, analysis of product labels)
- Students learn to develop a safety plan to guarantee safe student behaviour as much as possible
- Guidelines for teachers are provided

'A learning line on bullying', Belgium



<http://www.sip.be/stamand/pesten.htm>

Lead organisation

Sint-Amandusschool, Meulebeke

Aim

To translate the complex issue of bullying for primary school children using varied teaching environments in different classes and subjects.

Key elements

- Teaches pupils to improve the assertiveness of victims and to raise awareness of the consequences of bullying by implementing and integrating social skills and techniques
- The teacher starts to tell a tale, with the help of a video or a book and uses the information to stimulate pupils to process the information in a creative way (e.g. by making masks, developing posters, graffiti slogans, school newspaper)

'An idea for an action', Belgium

Lead organisation

Ministry of Culture and Social Affairs of the French Community, Red Cross Belgium and Educasanté

Aim

To disseminate cases and good practices on health and the prevention of accidents to primary and secondary schools.

Key elements

- Schools receive information on 30 different projects covering a wide range of topics (e.g. 'House of danger', evacuating the classroom) and this stimulates the children to learn safe and healthy behaviour by implementing the information creatively (e.g. by drawing, making a video, or interviews)
- The information on each project is very detailed: logistical and financial consequences, information on timing details, and the specific achievements

3.2. SAFETY AND HEALTH AS A TRANSVERSAL SUBJECT AT SCHOOL: CURRICULUM APPROACH

To integrate safety and health into the school curriculum and especially in the curricula of vocational education is a major task. But the way this task is carried out has changed over the last 20 years. The curriculum approach today is mainly based on two concepts:

1. To integrate OSH as a **transversal** topic in different subjects as a part of lifelong learning ⁽¹⁷⁾. OSH is no longer a topic primarily in scientific classes, but also forms part of, for example, teaching languages and literature.
2. To develop key competences in OSH for pupils/students and teachers. The focus has moved from 'teaching' OSH knowledge in a 'one-way-system' to **experience-oriented learning based on a dialogue** between pupils/students, teachers and OSH professionals.

The following four cases offer a conceptual and methodical framework for teachers on introducing OSH, examples of good practice in primary school, how to develop and diffuse didactic tools, a teaching resource package for national curriculum subjects to raise awareness in primary schools for safety issues that relate to a building site and, lastly, a comprehensive concept to develop basic attitudes and knowledge and to enable pupils and students to make a positive contribution to their own and others' safety and health.

⁽¹⁷⁾ Nyhan, Barry, 'European cooperation in vocational education and training', speech, in: *Proceedings of the first Agency contact group meeting 'Mainstreaming OSH into education and training'*, 26–27 May 2003, Bilbao; http://europe.osha.eu.int/good_practice/sector/osheducation/fullproceedings.stm.



3.2.1. 'AT THE SAFETY SCHOOL', ITALY



Servizio Medicina Preventiva di Comunità, Bergamo

ISPESL, Italian National Institute for Prevention and Safety at Work, Rome

Key points of this project

- To provide teachers with a framework and information for introducing safety and prevention into the teaching syllabus
- To expand the involvement of teachers in the development of educational aspects, in applying the curriculum method and in the revision of the handbook

Introduction

'At the safety school' is a teacher manual, drawn up in collaboration with public health authorities and school authorities (Provincial Education Office and teachers of various grades and levels) aimed at introducing the themes of safety and prevention into the teaching syllabus. It provides teachers with a conceptual and methodological framework, reference data and information, several examples and suggestions for testing and application.

Background

In 2000 the Bergamo Local Health Authority (ASL) conducted in-depth studies on new methods to improve health education, asserting the need to tie in this issue with normal educational processes and curricula. This would make it not a separate subject at school but a series of topics continuously examined and included in a number of subject matters over the years. The experience that comes closest to this was that of the State of Michigan (US), which has developed the 'Michigan comprehensive school model'.

In 2001 the Bergamo ASL and a group of teachers coordinated by the Provincial Education Office drafted a preliminary edition of a teachers' handbook that aimed to introduce safety-related topics connected to common environments and contexts, such as the home, school, traffic, major disasters, etc. in school curricula both in primary and secondary education.

In 2002, ISPESL and ASL signed a two-year study agreement for a 'pilot project for the development of a health and safety culture in the schools of a limited area'.

It is expected that a specific training course for teachers will be created so that they can promote effective health and safety actions and contribute to the insertion of OSH issues in the school curricula.

Aims

The project covers the following aims:

- (i) to make health and safety a part of growing up and an expression of protection skills using a programme based on individual and collective experience;
- (ii) to draft an educational course model for primary and lower secondary pupils, including proposals and study tools on the subject of safety, applicable to any Italian school;
- (iii) to offer a training process model for teachers for the correct application of the educational course mentioned above;
- (iv) to define and apply effective criteria and evaluation methods for the above two processes;
- (v) to gather substantial documentation on methodologies and applications and to make it available to all schools that wish to apply the method.

Scope

Safety and health education should be considered a process involving the acquisition of certain skills. It is therefore a process that is part of the educational path and can be applied to all subjects (mathematics, science, history, geography, literature, etc.). It can be seen as a spiral process: year after year OSH topics are tackled, studied in more depth and adapted to suit the new mental and emotional level of the student.

The project is aimed at kindergarten, primary schools and first and second grades in secondary schools. The themes involve safety at school, at home, on the street, etc.

The manual includes the development of skills concerning:

- (i) knowing: information necessary for understanding and information on the age level of the target group;
- (ii) knowing how to: acquiring operative skills through practical experiences;
- (iii) knowing how to be: acquiring a positive personal attitude.

A distinctive element of this project is the active participation of a group of teachers for formulating educational aspects and applying the curriculum method. The group will also revise the handbook.

The manual was printed and then presented at schools in the province of Bergamo in June 2002. Some schools have chosen to take part voluntarily. The manual has become one of the training options for the promotion of health in the school community of the Bergamo local health unit.

The whole project will be developed in the following four areas:

A. Drafting of educational course models for pupils/students

The handbook proposes to teachers working in different schools the principles, criteria and suggestions for the inclusion of safety-related topics in the various school subjects according to the curricular model. Table 1 gives some details and examples. During the project the number of real-life examples will be increased in order to assist teachers who wish to adopt the method. The method includes the evaluation criteria for efficiency.

Subject	Curriculum goals (examples)	Home safety goals	Examples
Italian language	To identify the main point of anything heard or read.	To understand the main topic and information included in the demonstration or regulation texts	The pupil: • defines the term DRUG and explains the rules for using (legal) drugs properly and in a safe way; • defines what an EMERGENCY is and shows the skills required to ask for help calling 118 and giving exact information without panic.
Mathematics	The pupil: • solves problems by concrete instruments; • classifies data as: probable, certain, uncertain; • collects personal and group data	The pupil: • recognises crucial situations; • gathers data using questionnaires; • recognises and solves problems in the context of practical experiences.	The pupil: • knows his/her house, using different areas according to their function; • collects and analyses data about domestic injuries; • shows solutions and suggests improving interventions.
Science	The pupil: • Masters research techniques (to observe, to investigate, to test); • matches doing with thinking.	The pupil: • explores home environment; • links causes and effects; • collects and selects information • uses the PC to work on data; • confirms facts, realizes relationships.	The pupil: • lists and puts into practice attitudes conducive to preventing damage to hearing and eye sight (use of PC, TV etc.); • knows and puts in practice some first aid measures; • knows, respects and uses furniture, technological devices, electrical appliance at home properly.

Table 1 — Examples related to the educational courses for pupils (primary school)

B. Development of a training process model for teachers who wish to apply the method

Work begins with an analysis of their training needs in relation to the development and application of an educational course on safety aimed at youngsters. The group taking part in training activities consists of 15 teachers of a primary school where the studied method will be applied.

Through the nominal group technique ⁽¹⁸⁾ and, subsequently, the Delphi technique ⁽¹⁹⁾, the training goals indicated by teachers for the training have been identified (Table 2).

The course will be held in three sessions, each lasting four hours, looking at the following topics:

- *Technical contents*

Training goals: teachers will be informed about the main risk factors in different contexts (road, home, school, local area), epidemiological data and reference legislation.

- *Educational aspects, theory*

Training goals: teachers will learn what health education is about, theoretical models to facilitate a change in behaviour, social attitudes and representation, the role of emotions.

- *Practical aspects*

Work tools; training goals: teachers will be able to construct activity sheets to achieve safety-related goals in different environments and for different age ranges. These sheets will be tested with some pupils during the school year and assessed in terms of effectiveness and their applicability in the curricular context.

Content	Training goals
Technical content: epidemiological data, types of risks, reference legislation.	Teachers will be informed about the main risk factors in different contexts and provided with up-to-date epidemiological data.
Educational aspects: theoretical models to facilitate a change in behaviour, social attitudes and consciousness, the role of emotions.	Teachers will be able to apply learning content to promote a safety culture to pupils.
Practical aspects: work tools to construct activity sheets.	Teachers will be able to construct activity sheets for different age stages and for different safety-related aims.

Table 2 — Development of a training process model for teachers intending to apply the method

⁽¹⁸⁾ The nominal group technique is a technique of training needs' assessment which allows a group of people (teachers) to reach agreement on topics they consider as a priority for a training course on OSH addressed to themselves.

⁽¹⁹⁾ The Delphi technique is used at a second stage, to better focus the goals of the training course. Using questionnaires sent to each teacher by email, it is possible to obtain a convergence of opinions superior to the starting position, without forcing the consent research through individual psychological conditioning.

C. Definition of evaluation criteria

The project will have an evaluation system focusing chiefly on the assessment of the process and on the assessment of the results (Table 3).

	Educational course (for students)	Training process (for teachers)
Process assessment	• How teachers draft and/or update the handbook; • How to assess educational processes involving pupils that apply the handbook.	• Evaluating the development of the training process involving teachers; • How to evaluate the following training courses for teachers, intending to apply the handbook.
Result assessment	• To assess the cognitive and vocational skills of pupils who use the handbook.	• To assess the skills acquired by teachers through the training courses.

Table 3 — Definition of evaluation criteria

D. Creation of an easy-to-use documentation package for schools intending to apply the handbook

It should be possible to access this package via the Internet.

The package will include at least the following categories:

- (i) collecting epidemiological data on accidents (road, home, school and in the local area) involving children in the Province of Bergamo, Italy and Europe;
- (ii) national, European and international directives on health promotion among children;
- (iii) legislation on safety relating to children;
- (iv) guidelines (national and international) on accident prevention;
- (v) documentation on health education methodologies;
- (vi) review of national and international literature regarding curricular actions of proven effectiveness on the subjects of safety and prevention;
- (vii) at least seven health education project kits on the specific question of safety aimed at junior and lower secondary school pupils;
- (viii) all applicable models in the various school subjects and teaching aids prepared by the teachers involved in the project.

Results

The results will be compiled and presented in the second phase of the project, which started March 2003 and is still running.

Problems faced

This project was developed as a joint effort between the education and health sectors. In some respects the contribution of the world of education is predominant (the development and application of teaching methods). In others, the health sector has played a leading role (proposing priority issues, gathering and processing data and information, developing and overseeing the

evaluation system). It is often difficult to gauge and calculate the contribution made by the various elements. Furthermore, such evaluations may sometimes appear to be unproductive. These two sectors sometimes have differing points of view that are difficult to bring together. Operating methods (e.g. in teachers' training) seem to diverge sometimes. However, ultimately the level reached has increased knowledge on both sides.

Until the inclusion of health-related subjects in school curricula is ratified by national standards, experiences of this kind will serve only to formulate criteria and educational tools, which will be applied only in those schools where the sensitivity of teachers and families, the social context and educational tradition will make this possible.

Factors of success

The chance for teachers and health workers to work together and 'compare notes' has already provided participants with valuable experience, which has more than offset the problems mentioned above.

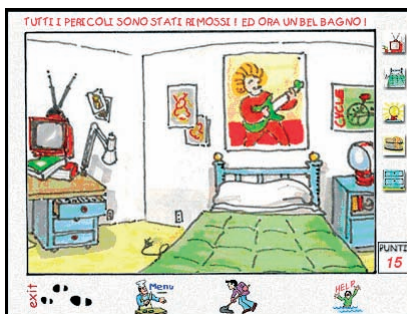
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3.2.2. 'EXAMPLES OF GOOD PRACTICE TO PROMOTE HEALTH AND SAFETY IN PRIMARY SCHOOL', ITALY



ISPESL, Italian National Institute for Prevention and Safety at Work, Rome

Civic Network of Milan Foundation

Key points of this project

- To promote a prevention and safety culture through the creation of teaching tools aimed at children at primary level relating to both daily life and working life
- To develop and disseminate training tools on a national scale
- To stimulate the participation of teachers and pupils

Introduction

Two teaching tools, 'In Luca's home' (CD-ROM) and a short film entitled 'Glasses to see with', were created for pupils/students aged 6 to 10 using the teaching methodologies suitable for these children. The tools were disseminated at national level to stimulate children to learn about safety and prevention and to promote a prevention culture. The use of the multimedia interactive tools turned out to be crucial to the overall and active involvement of the pupils.

Furthermore, the CD-ROM has been included in a cooperative project to try out innovative forms of teaching and interactive learning for pupils aged 5 to 16. This additional project, called 'Hunt the treasure', offers many opportunities for studying topics relating to main school subjects.

Background

This project grew out of the assumption that schools, primary schools in particular, can play a fundamental role in transmitting the basic values of safety and health to new generations. Given the young age of pupils, it is easier to work and create new awareness.

Aims

- (i) To have the pupils involved acquire the necessary knowledge to implement effective prevention measures in their daily life environment using specific tools.
- (ii) To test new and interactive methods of teaching and learning in order to promote a preventive and safety culture in primary schools.
- (iii) To involve teachers, parents and pupils in the promotion of health and safety.

Scope

The project has a twofold scope: on the one hand, the creation of didactic tools for pupils aged 6 to 10, using the teaching methods more suitable for children of primary schools; on the other hand, the dissemination of the teaching tools at a national level in order to promote a prevention culture.

The following training goals were identified:

- (i) producing tools that can stimulate children to learn safety and prevention concepts;
- (ii) developing (active) teaching/learning methods that capture the interest of the pupils and help them socialise;
- (iii) stimulating the involvement of children and teachers;
- (iv) evaluating, by different means of expression (drawings, posters, questionnaire, papers), what children have learnt and the level of involvement.

The main goal of all this is: 'Start young, stay safe!'

Products in detail

The first tool, created by ISPESL in cooperation with the CSEI of the University of Perugia, is an interactive CD-ROM called 'In Luca's home', through which children, by reacting to attractive graphics and animation, are made aware of the dangers of particular situations or actions in their own homes and of the risks deriving from particular situations or actions. In the game the child removes all dangerous situations and learns to behave in a safe manner within the various home settings, e.g. bedroom, bathroom, kitchen, garage and living room. The CD-ROM contains study materials aimed at educators (parents and teachers) and also at older children. Information sheets on first aid and measures to be taken in the event of accidents are also available, as well as a glossary of the most important OSH terms.

The second tool created by ISPESL in cooperation with IRSAD (Research Institute for Safety in the Home Environment) is a short film entitled 'Glasses to see with'. In the film, a grandfather, i.e. representing the values of experience and safety, asks his grandchildren questions on health and safety and waits for the answers. The questions and answers appear as subtitles and can be read aloud by children in a karaoke style. The glasses that the title of the video refers to are a metaphor. They allow children to see and thus avoid accidents in the home. The video shows typical family scenes and how accidents in the home often happen. The accidents are reproduced in six home settings and the video provides the opportunity to talk with the children about risks and preventive measures.

Results

Both tools were distributed to primary schools in the Molise region, in collaboration with the local education authority and with the involvement of OSH experts from ISPESL and the association 'Ambiente, Sicurezza e Qualità' of the National Crafts Confederation. They were also tested in the schools of the 37th school district of Rome.

ISPESL disseminated the tools widely in the framework of specific meetings and seminars and passed them on to many schools which requested the two products.

Problems faced

- (i) Teachers had a superficial knowledge of OSH concepts (this is why ISPESL had planned meetings with OSH experts).
- (ii) Parents also had a superficial knowledge of OSH concepts.
- (iii) Schools generally have economic difficulties.
- (iv) There is a structural shortage of school buildings.

Factors of success

The use of interactive multimedia tools turned out to be crucial to the overall and active involvement of the pupils.

By acting on the practical/application-oriented aspects it was possible to implement a training strategy capable of stimulating the individuals to solve real problems related to their daily life environment. At the same time, the pupils became aware of working within a group, thereby improving their relational and cognitive skills with the aim of reaching the goals that had been set.

Furthermore, the strategy adopted involved meetings between teachers and safety experts to analyse the two products, discuss materials, illustrate the most appropriate teaching methods and draft an evaluation system to verify whether the messages transmitted were understood and assimilated. Working in groups and doing exercises, the children created drawings, posters and reports that showed a growth in awareness of the perception of risks in daily environments.

The teaching tools have been requested by many Italian schools. That is why ISPESL decided to draw up specific guidelines addressed to teachers in order to optimise the use of the tools.

Transferability

The CD-ROM 'In Luca's home' has been included in a cooperative project for distance learning in school networks.

This project, called 'Hunt the treasure', is promoted by the Civic Network of Milan, the Regional School Department for Lombardy and the Committee of Computer Science Teachers, with the backing of the Ministry of Education.

The project aims to try out innovative forms of teaching and interactive learning, offering participants (pupils aged from 5 to 16) many opportunities to study topics relating to main school subjects: intercultural education, health and safety education, environmental education, technologies and communication, etc. ⁽²⁰⁾.

In 2000–01, 5 000 pupils/students and teachers took part in the project in 490 groups (with 300 families participating from home) from 350 schools in Italy, France, Germany, the UK, Belgium, Luxembourg, Switzerland, Egypt, Uruguay and Costa Rica.

The 2001–02 edition attracted 6 000 users from Italy, Germany, France and Argentina. One hundred and fifty logbooks are already online, with hypertexts,



drawings, animations and illustrated researches, bearing witness to the creativity and interest shown by children, teachers and parents in the issues of health and safety.

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⁽²⁰⁾ The project is called *Hunt the treasure* because the game involves the creation of teams of pirates that have to conquer space and search for 'knowledge treasure'. It is structured so that each participating group, having registered online according to age group, can take part in the game and tackle the various stages using different-coloured treasure chests according to the difficulty level (e.g. mauve: infant school; blue: 5th year junior and 1st year lower secondary). The third stage of *Hunt the treasure*, set in the ISPESL Galaxy thanks to the support of the Department of Documentation, Information and Training, offers pathways, teaching material, quizzes and games for safety and health education. The material can be downloaded from: <http://fc.retecivica.milano.it/rcmweb/tesoro/suk/didacta.htm#didacta>.



3.2.3. SPLAAT — 'SAFE PLAY AT ALL TIMES', ENGLAND



Laing Homes' community programme, Milton Keynes

Key points of this project

- To raise awareness of safety issues that relate to a building site within the neighbourhood for primary school children
- To develop a range of education resources for pupils to develop personal skills in risk management and control

Introduction

The Splaat initiative is part of the Laing Homes' (a construction company) community programme and is dedicated to providing resources, ideas and teaching plans for school teachers' using the presence of a local building site as a stimulus to pupils. Key messages in child safety and sustainability are promoted, as well as providing insight into house building to enhance curriculum subjects such as literacy, information and communication technology (ICT), and design and technology (D&T).

Background

The UK's construction companies have shown increasing concern about safety risks that exist for people living in the locality of construction sites. The risks are most apparent for young people. Between 1990 and 2000, 818 children were injured on building sites; 16 of these accidents were fatalities. Through community-based safety initiatives, construction companies can hope to improve their reputation and gain support from local communities.

Safety education is also a responsibility for schools under the English national curriculum ⁽²¹⁾. School safety initiatives can be wide-ranging, but have particular salience when they address issues of local concern. In this respect, educating pupils about the hazards associated with a neighbouring building site is likely to have a positive impact.

The Splaat initiative began in 2000 and has been developed by the Laing Homes' community liaison coordinator (a qualified teacher). A number of partner organisations have been involved with its development, including: the Royal Society for the Prevention of Accidents (RoSPA) and the Construction Industry Training Board (CITB). Based upon insight into school education practice, a series of five education components were developed. Schools can select components and their level of involvement with the Splaat initiative. The initiative is currently being extended with education components being developed for secondary schools (ages 11–16 years).

Aims

- (i) To raise 7–11 year-old pupils' awareness of safety issues that relate to a building site within their neighbourhood.
- (ii) To develop a range of education resources that will assist pupils to develop personal knowledge and skills in risk management and control.
- (iii) To provide presentations during school visits that warn children of the risks associated with playing on building sites.
- (iv) To develop teaching resource packs for national curriculum subjects, e.g. literacy, information and communication technology (ICT), and personal, social and health education (PSHE), that integrate OSH.
- (v) To include national curriculum attainment requirements within the education resource packs produced.
- (vi) To develop a website resource for primary schools that provides information and interactive resources for education in construction site safety.
- (vii) To develop Laing Homes' community relations.

Scope

The target schools for this initiative are primary schools that are situated within a one-kilometre radius of Laing Homes' construction sites. At a time when a new Laing Homes' construction site is being planned, all primary schools within the one-kilometre radius receive a written invitation to participate in the initiative.

The initiative aims to raise children's awareness of the dangers on building sites and to equip them with the knowledge to manage risks. The Splaat initiative includes five main components:

⁽²¹⁾ For example, the national curriculum provides education guidelines for risk, health and safety teaching that specify 'pupils should be taught: to manage their environment to ensure the health and safety of themselves and others; and to explain the steps they take to control risks'. (Qualifications and Curriculum Authority (QCA), *Design and technology*, HMSO, London, 2000, p. 16). For more information regarding QCA: <http://www.qca.org.uk/>.

- (i) safety presentations delivered to pupils with a range of abilities (typically ages 5–11 years);
- (ii) an education resource pack for teaching (ages 7–11 years) about building site safety and other key learning objectives;
- (iii) an interactive safety education website;
- (iv) construction workshops;
- (v) supervised school visits to local Laing Homes' construction sites.

All components are provided at no cost to the schools, and the level of participation is at the discretion of the participating schools.

Safety presentations

Safety presentations are delivered during school assembly addresses, or delivered separately to individual year groups. Multimedia presentations are made, a range of commonly encountered building site hazards are identified, and pupils are provided with an opportunity to try out personal protective equipment worn by construction site workers.

The safety talk takes into account the learning capabilities of different age groups. Particular efforts are made to ensure that pupils are not frightened by the content of the talk and that they are given opportunities to engage in a subject-relevant discussion.

Education resource pack

The pack provides teachers with a comprehensive resource for delivering safety education through the literacy, ICT and PSHE curriculum. It includes the necessary materials and lesson plans for six teaching units. Each unit is designed to cover core national curriculum learning objectives, as well as relevant safety education themes. The lesson plans are organised in such a way that teachers can adapt them to the needs of their pupils.

This resource is freely available to any users and can be accessed via the Laing Homes' community website ⁽²²⁾.

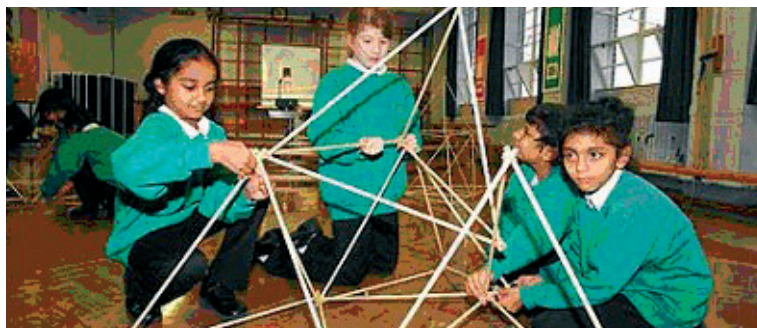
Interactive website

The Splaat website provides further resources for teachers on building sites and child safety. It also provides activities for children, including competitions and an interactive scenario, requiring children to take on the role of safety inspectors and identify site hazards on a virtual building site.

Construction workshops

There are five themed construction workshops for delivery to year groups, using materials developed by the CITB.

⁽²²⁾ The resources can be found at the following URL: www.building4education.co.uk.



During the workshop pupils work together to create large, free-standing structures (e.g. a bridge or a dome). The workshop is designed to promote teamwork and problem-solving skills, whilst promoting interest in building construction, building materials and forces, and safety aspects.

Construction site visit

Safe site visits are provided for small groups of children. The visits can be tailored to focus on curriculum topics, such as building materials (science), or the local area (geography).

The operating costs for this project stand at EUR 140 000 per year, which is funded solely from the Laing Homes' public relations budget. This level of funding provides all material resources and a full-time community liaison coordinator.

Results

There have been no control groups or formal methods of evaluation applied to the Splaat initiative. In this respect, the project was focused on the process of implementation for safety education curriculum components, rather than the evaluation of outputs (e.g. greater pupil risk awareness).

It is reported that 50 % of schools in relevant areas take up the invitation and participate, at some level. The safety presentations are the core component and the initial entry level. The construction workshops are taken up by about 65 % of participating schools, and construction site visits by 5 %. The Splaat website can be accessed by any interested parties — the levels of site access are rising and currently reflect 3 000 hits per month.

In recent years schools have been encouraged to apply a whole school approach to education. Schools are expected to involve the teaching staff, pupils, parents and other members of the community (e.g. businesses) in education activities. Participating with Laing Homes contributes to the fulfilment of this aspiration.

The website has undergone a formal evaluation and received the government badge of approval, as part of the UK's national grid for learning (NGfL) ⁽²³⁾.

⁽²³⁾ The national grid for learning provides a network of selected links to websites that offer high quality content and information.

Problems faced

One objective of the Laing Homes' community programme has been to generate and sustain interaction with local communities. Sustaining communication has proved to be beyond the capability of the single community liaison coordinator. However, efforts are being made to devolve responsibility to Laing employees who are based within each relevant locality, with a view to building on the Splaat community liaison work with schools.

A number of schools have reported that they have not been able to take advantage of as many of the components as they would have liked. The reason being that the school curricula are often tightly populated and consequently new topics have to be written into schemes of work well in advance of their implementation.

Factors of success

The Splaat education components were developed and delivered by an experienced school teacher and, as such, the initiative is based upon a teaching practitioner's insight. A number of participating schools have indicated that this factor has resulted in the development of high quality education products. Further evidence of relevance is gained by being aligned with national curriculum education objectives.

The Splaat initiative, with its focus on local building sites, provides local relevance and a real-world practical learning application for young people about risk and personal safety.

Another important feature is that Splaat is provided free of charge and does not draw upon the participating schools' resources. When visiting a school, the Splaat coordinator provides all of the necessary materials.

Transferability

In the United Kingdom, many companies are conscious of their public profile and seek to improve their image through public relations initiatives. This represents one important motivating factor for Laing Homes. If similar initiatives were to be delivered by other private construction companies, presumably they would need to be convinced of the publicity value of participation in community programmes.

Similar education resources could be developed for other EU Member States. However, changes may be required when referencing national curriculum requirements and any regional variations relating to building site hazards and safety regulations.

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3.2.4. THE ARMI PROJECT: 'AR AND MI AT SCHOOL'/'NEW KIDS ON THE JOB', DENMARK



ASC, Arbeidsmiljoradets Service Centre (the Service Centre of the Working Environment Council), Valby

Key points of this project

- To raise awareness, starting already in primary schools, on safety and health by achieving basic attitudes and knowledge
- To let children learn to make a positive contribution to their own health and safety and that of their colleagues
- Involvement of different partners: parents, pupils, government bodies, trade unions and employers' associations, and other experts in OSH and education

Introduction

The Armi project is meant for primary schools, general upper secondary and vocational secondary schools and colleges. 'Ar and Mi' is a project for primary schools, and deals with safety and health attitudes and habits. 'Ar' and 'Mi' are two trolls whose names come from *ArbeidsMiljø* ('working environment' in Danish). Using a project-based working method, the children are introduced into and become acquainted with health and safety issues. A whole range of teaching materials have been developed to convey the message in a way that appeals to the kids.

A follow-up to this project is 'New kids on the job'. As the name indicates, this part refers to the first steps of young workers into working life. Using concrete examples, the pupils receive an outline on how to cope with the unknown, stressful situation of the first job. Also in this case, the means (Internet and video) are adapted to the targeted age group.

Background

To prevent safety and health 'disease' among young people it is necessary to encourage them to develop good safety and health attitudes and a sense of responsibility for their own living and working environment. Basic attitudes and

knowledge with regard to safety and health should be provided by the educational system.

Therefore the Danish government developed the action programme 'Clean working environment', which aims to establish good health and safety standards by the year 2005. One of its general aims is the issue of safety and health for children and young people. The programme recommends that basic attitudes and knowledge in relation to safety and health should be taught in schools, to ensure that pupils make a positive contribution to their own health and safety and to that of their classmates.

The teaching of health and safety is very important in legislation and in the school curriculum. In the Primary School Act, for example, high priority is given to the teaching of health and safety; it is incorporated in a number of curriculum subjects, and health and safety training is compulsory for all school levels. In secondary schools you only find teaching health and safety as a compulsory subject at some levels.

The lead organisation of the project was in the hands of the ASC (Arbeidsmiljoradets Service Centre — the Service Centre of the Working Environment Council, Denmark). To establish this project, collaboration between several parties was necessary:

- Trade unions,
- employers' organisations,
- the National Association of Local Authorities in Denmark,
- the Danish Ministry of Education,
- the parents' organisation 'School and society',
- the National Teachers' Association,
- the Danish Association of School Managers,
- the pupils' associations FLO and DEO,
- the Danish Working Environment Service,
- the Sector Safety Council for Education and Research,
- representatives from a number of occupational safety and health projects.

One part of the Armi project focuses on the teaching of health and safety in primary schools (ages 6–15), and the other part on developing positive attitudes and behaviour in the psychosocial work environment for young pupils (ages 15–19). This part, called 'New kids on the job', has been developed following the successful implementation of the 'Ar and Mi' first stage project, and focuses on students in secondary and vocational education.

Aims

'Ar and Mi' is aimed at raising awareness of safety and health from a young age onwards. Schools should provide basic attitudes and knowledge in relation to safety and health and pupils must be able to make a positive contribution to their own health and safety and to that of their colleagues. They discover how, by discussing and expressing their opinions, they can influence their surroundings according to the views and opinions formed during the process.

The goals of the 'New kids on the job' project are to develop an understanding of the psychosocial work environment, how this can affect their safety and health, and to learn how to respond in a positive adaptive way. This is elaborated for different occupational sectors. The cases have as their settings a farm, a bar, a shipyard, a building site, a transport firm, a hairdressers, a hospital and a consultancy firm. The project was aimed not only at providing education material for pupils, but also at training the teachers.

Scope

1. 'Ar and Mi'

Through different activities the trolls explain to the youngest pupils why a good physical and psychological environment at school is important for their well-being. The package uses the project work method: Ar and Mi feature all the way through the materials and lead the children through the different subjects. The Ar and Mi part uses a methodology in which pupils actively and purposefully investigate their environment, form concepts and ideas about it, try to understand it, take action on it, and form opinions about it. The fundamental approach is discussion and individual creativity on the part of the children.

The system provides opportunities for pupils to present their work to classmates, pupils in other classes or other schools, parents, school boards, etc. The presentations can incorporate the various disciplines in the subject, such as statistical work, model building, drama, film, etc.

'Ar and Mi' is a project that includes a lot of materials:

- the troll house, full of materials for safety and health education; the storybook Ar and Mi at school; posters; a teacher's folder;
- the *Ar and Mi Journal and Health and safety training*;
- a catalogue of ideas; health and safety training for trainers;
- Ar and Mi's homepage: <http://www.armi.dk>.

2. 'New kids on the job'

The 'Ar and Mi' project has a follow-up for young people (15–19 years of age) entering the world of work. 'New kids on the job' is a material package for teaching the psychosocial working environment to students in general upper secondary and vocational upper secondary education. The underlying assumption is that it is important to be socially well grounded in your workplace. It uses the stressful time period of the transition from school/education to the world of work as a learning tool.

The materials are based on eight documentary cases in which young people are having their first work experiences. All case studies have in common that they are real experiences that people could face in their first job, at their first day of work without the possibility of help from their teachers, counsellors, peers or friends, and where they have to adapt.

The products in the materials package are four films (video/DVD), posters, folders, written articles and reports, teachers' guidance, educational television programmes and a huge extended website, developed in close collaboration with the Danish Broadcast Corporation. The broadcasting time on television is

an important asset to the project: the importance of mass media can hardly be underestimated.

The sets of materials are being developed in close collaboration with the specific sector safety councils, which deal with the occupation in question. The materials have been on sale since November 2003.

'New kids on the job' uses different teaching methods appropriate to the age group. It uses the pupils' higher critical skills and relates the examples to possible stressful experiences they might face in the near future.

Classroom teaching cannot be done without training the trainer, so training programmes are also provided with the education packs.

Results

The project and materials have been evaluated in a 'pilot project'. The material was tested on classes in general and vocational upper secondary education establishments, and results were positive. 'Ar and Mi' was received with great success: Even if the materials were expensive, 50 % of state schools used them. This could imply that 'New kids on the job' could receive the same acceptance from schools.

Problems faced

A shortcoming of the project is that the materials are expensive for schools to buy. Nevertheless, they prove to be very effective in terms of their aims.

Factors of success

'Ar and Mi' is successful because:

- it involves different partners, including trade unions, professional associations, the government, parents and pupils, and also other experts in occupational safety and health;
- it makes the examples relevant to pupils' lives, and so easier to relate to, understand and learn from;
- it uses a variety of methods (e.g. project method, storybook method) and produced a great many products (DVDs, videos, website, posters, troll house, articles, etc.).

Most importantly, it uses a teaching approach and learning methods that are appropriate to the age group.

Transferability

As far as the troll figures are concerned, it could be a problem that these creatures have a different connotation in other countries (e.g. nasty rather than cute). A problem of recognition may, however, occur with alternatives to the trolls as well.

The concept is easily transferable to other countries. The information on this project is available in Danish. The brochure Ar and Mi at school has been translated into English and Italian, and an introduction video about 'New kids on the job' has English subtitles. However 'New kids on the job' will require greater changes than mere translation. The pictures and some of the cases

chosen could create a barrier for students of other countries due to lack of immediate recognition.

Further contact

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<http://www.nyijob.dk>

'Snapshots' II

'Human torch', UK



<http://www.hse.gov.uk/education/humantorch.htm>

Lead organisation

Health and Safety Executive (HSE)

Aim

To transform the teaching of standard national curriculum lessons on safety and risk into a forensic, X-files style plot about spontaneous human combustion so that students (11–14 years) learn about chemical reactions and safety.

Key elements

- CD-ROMS provide innovative teaching activities for pupils and teachers to help raise the profile of science throughout schools.
- The computer activities are enriched with dramatic classroom experiments so pupils can reconstruct the crime.
- Initial feedback from trial schools piloting this approach suggested pupils found it highly motivating and teachers thought it would make an impact on safety behaviour.

'Personal protective equipment', UK



<http://www.rosipa.com/CMS/index.asp>

Lead organisation

The Deputy Head, the Royal Society for the Prevention of Accidents' safety education team and the West Midlands Fire Service

Aim

The KS2 design technology project aims to introduce pupils to occupational uses of protective clothing and to assess related health, safety and risk control issues. This responds to the requirement that in England the schools should take account of health and safety in five areas of modules of the curriculum. The project integrates health and safety into a design technology module.

Key elements

- One-off endeavour with one group, but the model — developed by the teaching staff — could be replicated in other schools or serve as a template for similar initiatives.
- The project drew on resources already available to the school.
- In the external evaluation of the school, by the standard OfSTED inspection, there was a positive mention of the project. The project also won an award from Birmingham Careers and Education Business Partnership as an example of a partnership between a school and a business.

'OSH as subject of transversal education', Spain



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<http://www.mtas.es/insht>

Lead organisation

Instituto Nacional de Seguridad e Higiene en el Trabajo, Madrid

Aim

In order to help teachers of primary schools (ages 6–12 years) and of secondary schools support the introduction of OSH, two guides plus a series of proposals have been developed. The aim is to make OSH appreciated by pupils, so that they develop attitudes and customs aimed at preserving their own health and safety.

Key elements

The guides contain specific material to work in the classroom, with practical activities.

The guide for primary schools is divided into seven parts:

- the education of values;
- schoolwork;
- work safety and school safety;
- work hygiene and school hygiene;
- ergonomics at work and at school;
- prevention management at school;
- transversal education of values

The guide for secondary education contains:

- values in secondary education: safety, an educational value;
- safety at work and at school;
- industrial hygiene at work and at school;
- health at work and at school;
- ergonomics and psycho-sociology at work and at school;
- OSH social framework: prevention management.

‘Erga primaria transversal’, Spain

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Lead organisation

Instituto Nacional de Seguridad e Higiene en el Trabajo, Madrid

Aim

Erga primaria transversal is an online publication aimed to help teachers of primary schools to teach OSH as a subject of transversal education, in order to promote OSH values and attitudes in pupils.

Key elements

Contents are presented in a very practical form, and users can obtain and handle each text or picture in order to work with them. Each number is about a specific subject and contains:

- Safety at school
- Practical exercises:
 - First cycle (pupils aged 6–8)
 - Second cycle (pupils aged 8–10)
 - Third cycle (pupils aged 10–12)
- Transversal case study
- Expert opinion
- Legislation
- News
- Useful information
- Publications of interest
- Suggestions

This publication can be downloaded for free from the website of the Spanish National Institute of Occupational Safety and Health (http://www.mtas.es/insht/en/MTA/MTA_en.htm). Three numbers are published yearly, at the beginning of each school quarter. The website receives about 8 000 visits per month.

‘No badis! La prevenció des de l’escola’, Spain

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Lead organisation

Departament de Treball, Indústria, Comerç i Turisme, Generalitat de Catalunya, Barcelona

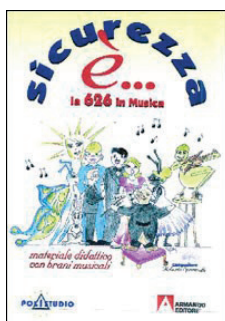
Aim

No badis! is a project for primary schools (from 6 to 12 years). It is only by having a real preventive culture in all spheres of life that such a culture can be introduced into the work environment, thereby eliminating accidents and occupational ill health. The aim is to integrate prevention in a definitive manner into all student activities and those that may involve risks to health.

Key elements

- The teaching materials describe dangerous situations which may occur at home, at school or in the street: falls, the use of sharp tools, poor posture, etc.
- Other games introduce very basic concepts related to prevention, such as the importance of tidiness, organisation and planning.

'Safety is ... 626 set to music', Italy



<http://www.polistudio.it>

Lead organisation

Polistudio SRL
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I-45030 Borsea (RO)

Aim

'Safety is ... 626 set to music' has been devised to offer study and musical material for children, teachers and parents dealing with single-theme topics in the sphere of safety in working and non-working environments. The words and music of the songs are based on technical and legislative input on the subject of worker safety, health and prevention in the workplace. These contents have been turned into simple stories based on everyday life, taught to children together with parents, teachers and workers.

Key elements

- The product comprises a CD containing 10 tracks with 8 instrumental bases, a guide with images and the lyrics of songs to be used by children and a guide to assist teachers and/or families.

- Attractive graphical presentation of verses and choruses helps children to learn contents using invented personalities (a chirping cricket, a sad cricket, a teaching mole, a teaching ant, a risk-causing wolf).

3.3. TRANSITION FROM SCHOOL TO WORKING LIFE: WORKPLACE APPROACH

Especially in vocational and technical education, the step from education to the workplace is a small but important one. Preparing for the challenges of future working life should therefore form a basic part of education.

In the previous chapters, attention has been given to the development and promotion of basic safety and health attitudes and to the creation of a general safe and healthy environment. The report has proved up to now that it is possible to raise risk awareness from an early age and that healthy and safe behaviour can already be learnt at primary level. In this chapter, the focus is on the last step in the educational process: the transition from education to working life. This is extremely important since specific risks may occur on the workfloor, often linked to certain sectors (e.g. construction, agriculture, etc.).

The chapter that contains six cases starts with an example of a project aimed at preventing accidents to children and young people in agriculture, continues with a project aimed at giving students a proper economic and social usefulness within a company by working at sector level, followed by a specific example of how students participate in the safety improvement of machinery, a video teaching resource with concrete examples of workplace risks and a competition for students in vocational schools. The last case refers to the improvement of teaching and training OSH in schools and vocational training centres by developing training modules according to the credit transfer training units' architecture to be used in different sectors.



3.3.1. 'PREVENTING ACCIDENTS TO CHILDREN AND YOUNG PERSONS IN AGRICULTURE', IRELAND



Health and Safety Authority, Dublin

Key points of this project

- To raise awareness amongst farmers regarding hazards for children at the farm by providing a code of practice for work activities
- This includes the preparation of a safety statement and the carrying out of a risk assessment

Introduction

The safety statement is essentially a document setting out how safety and health is to be managed on the farm. It includes a systematic appraisal of all the hazards on the farm, with a risk assessment. Where the risk of injury is high, the safety statement identifies control measures to eliminate or to reduce the risk.

Background

The farm safety record on Irish farms makes for startling and sad reading. The level of accidents in recent years indicates that many farmers have opted for 'risk taking' rather than 'accident prevention'. In 2001 alone, 24 people, including seven children, died on Irish farms. These people were killed primarily as a result of accidents with tractors, farm machinery, animals, slurry pits and falls from heights.

Children and the elderly on farms are particularly at risk. Children are often attracted to play in and around areas on the farm where there are animals, tractors, or where machinery is operating. They will also seek out places to hide that may be near chemicals or where other dangerous items are stored, or climb up to places from where they can potentially fall. Particular dangers include

slurry pits, and hay sheds where they are at risk of falling from or between stacked bales or indeed of bales falling on them.

It is natural for farmers to want to include their children in farm activities. Introducing children at a young age to farm activities can help build many varied skills. Often there is a failure to appreciate that children are more prone to farm hazards than mature adults. Young people may feel under pressure to complete tasks for which they are not qualified or do not understand, or may not be physically able to do, sometimes with fatal consequences ⁽²⁴⁾.

The National Authority for Occupational Safety and Health ⁽²⁵⁾ has issued a code of practice entitled *Code of practice on preventing accidents to children and young persons in agriculture*.

The code of practice provides practical guidance as to the observance of the provisions of the Safety, Health and Welfare at Work Act 1989, the Safety, Health and Welfare at Work (General Application) Regulations 1993, and the Safety, Health and Welfare at Work (Children and Young Persons) Regulations 1998, relating to the protection of the safety and health of children and young persons on farms.

Since a farm is unique in terms of its dual role as a workplace and a home, it contrasts readily with virtually all other places of employment as regards the potential for work activities to impact on and affect children. Accordingly, this code of practice solely addresses the matter of child safety in that particular context and circumstances.

In addition, this code of practice applies only to on-farm work activities and their potential impact on children. It does not deal with other activities, such as driving tractors and other machinery on the public roads, which are covered under road traffic legislation.

Aims

The ambitions of this project are to raise awareness amongst the farmers of the hazards for children that are present at the farm. It must become clear that accidents can be avoided and that they have a role to play in this.

By giving a practical standard, they can become aware that the hazards are a reality but not an obstacle that cannot be overcome.

Scope

One of the main provisions outlined in the code is the requirement of farmers to prepare a safety statement and carry out a comprehensive risk assessment. It says a risk assessment must be carried out before any minor commences work, or comes into contact with farm activities.

⁽²⁴⁾ In this document, 'child' means a person who is under 16 years of age or the school-leaving age (whichever is higher). 'Young person' means a person who has reached 16 years of age or the school-leaving age (whichever is higher) but is less than 18 years of age.

⁽²⁵⁾ By virtue of Section 30 of the Safety, Health and Welfare at Work Act 1989, following consultation with the HSA Task Force on Agricultural Safety and with the consent of Mr Tom Kitt, TD, Minister of State at the Department of Enterprise, Trade and Employment, given on 18 June 2001.

Advice and guidance is given on the following specific areas:

- safety statement and risk assessment for work activities that involve children and young persons;
- supervision, instruction and training;
- general principles of health and safety management;
- play areas for children not involved in work activities;
- operating and riding on machinery;
- contact with machinery and moving vehicles;
- contact with animals;
- drowning and asphyxiation;
- hazardous substances;
- falling from heights;
- being hit by a falling object;
- fire.

The safety statement is essentially a document setting out how safety and health is to be managed on the farm. It will include a systematic appraisal of all the hazards on the farm, with an assessment of the risk of them causing injury. Where the risk of injury is high, it identifies control measures to eliminate or reduce the risk.

Other important aspects:

- (i) Minors, partly because of their level of maturity, will need more supervision and instruction than you would normally expect to give an adult. It is essential that minors be adequately supervised by a responsible adult.
- (ii) Minors should not be permitted to carry out any work activity unless their capabilities have been assessed, in terms of safety and health, to do the job.
- (iii) Special care needs to be taken to ensure that children do not have access to danger areas, attracted through curiosity, arising from factors such as the noise of tractor engines or other machinery. Danger areas are, for example:
 - operating machines and machinery (e.g. tractors, towed/self-propelled harvesters such as trailers and towed machinery, power-driven machines, chemical applicators, etc.);
 - entry to areas where drowning and asphyxiation may occur (e.g. slurry tanks/silos/pits, grain silos, etc.);
 - falling from heights (e.g. the upper levels of buildings and high structures such as silos and stacks of bales).

Building on this initiative, the HSA included the 'Safe farming is good business' case study in the sixth edition (2002) of *The Irish Times Business 2000*, a publication which provides business case studies and resources to teachers and students. Backed up with a CD-ROM and website (<http://www.business2000.ie>) this publication is made available free of charge to schools throughout Ireland. The HSA case study can be found at http://www.business2000.ie/cases/cases_6th/case14.htm. In 2003 the HSA sent out free copies of the *Farm safety self-assessment document* to farms referring to the Brian Higginson initiative (a

community care initiative for children with special needs) and which included specific reference to child safety assessment.

In addition other products exist. A video, CD-ROM and *The code of practice on Irish farming* have been circulated to all Irish primary level schools (pupils up to 12 years old). Other publications include *Play safe, stay safe on the farm* and *Children and safety on farms*.



Problems faced

The activities, precautions and control methods set out in this code of practice are not exhaustive and many other agricultural activities pose a risk to children. Farmers have a responsibility to assess each activity in terms of its risk to children and young persons. Before allowing them to carry out a work activity they must decide if it is suitable for them, taking into account their level of competence and the level of supervision and instruction being provided.

Success factors

The safety statement is based on the work environment of the farm as such and this makes it a very concrete, practical tool.

Moreover the hazards are listed, which is a big help for people who work in agriculture. Measures are proposed per risk, an excellent start to really doing something about the risk situation.

Further contact

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See also:

Health and Safety Executive, UK

Publications:

- *Stay safe on the farm* (<http://www.hse.gov.uk/pubns/staysafe.pdf>)
- *Keep children safe on the farm* (<http://www.hse.gov.uk/pubns/indg340.pdf>)
- *Preventing accidents to children on the farm* (<http://www.hse.gov.uk/pubns/as10.pdf>)
- *Avoiding ill-health at open farms — Advice to farmers* (<http://www.hse.gov.uk/pubns/ais23.pdf>)

3.3.2. SYNERGIE, FRANCE



CRAM, Caisse Régionale d'Assurance Maladie

INRS, Institut National de Recherche
et de Sécurité

Key points of this project

- To empower vocational students by giving them a proper economic and social usefulness within a company
- To confront these students with safety and health issues by giving them the responsibility of improving the working conditions and by carrying out a risk assessment

Introduction

Synergie is a project that involves vocational schools, companies and OSH experts. The students are given the responsibility of performing a risk assessment in the company where they are working as apprentices. In this way, they get a true economic and social value during their vocational education.

Background

In 1993, a protocol was signed between the Ministry of Education and the national health insurance fund for employees. The main aim of this new deal was to promote safety and health in the vocational training system. Prevention of occupational hazards was integrated into teaching. Another partnership in Alsace involved the national educational authority, the regional health insurance fund (CRAM) and the wood working industry. These organisations had also developed a close partnership.

The statistics indicated that workers under 25 are 2.5 times more often the victim of an accident at work than the national average. Apprentices, representing no more than 1.2 % of the workers, are involved in 3.3 % of the accidents at work.

These figures, and the set partnerships with their aims for safety at work, gave rise to the Synergie project.

The project initially only involved the wood-processing sector. Later on, it also involved the construction and public works trades, the graphical industry, and the car body works and metallic structures sectors.

Aims

Working safely is a part of good practice. Therefore students must be well trained and should have had experience with health and safety before starting their first job. The basic idea behind Synergie 'School–prevention–business' is to empower pupils or students during their work placement by giving them proper economic and social skills within a company, and bringing them into contact with safety and health at work. This is achieved by giving them the responsibility of helping to improve safety and working conditions. Trainees need tools and methods to apply immediately during their work placement and later when they enter the world of work, and need to be able to contribute to the improvement of safety and working conditions in their host company.

Employers must carry out risk assessments. In this way, Synergie kills two birds with one stone. The employers are allocated tasks imposed by law, so they are obliged to deal with them anyway. The student gets a chance to take his or her first steps into the working world already focused on the prevention of occupational hazards.

Scope

The trainees carry out a diagnosis of the hazards and working conditions of the host company during their work placement, assisted by their tutor. This diagnostic phase is the final stage of a process of partnership and training.

Steps

Initially, the CRAM (the regional health insurance fund) makes an agreement with the sector concerned to get its companies to accept the principle of safety audits being carried out in the framework of the students' training programmes. Their aim is to open up a cross-generational dialogue within the company on the problems of occupational safety and health. The CRAM makes a commitment not to use the results of these audits. The health insurance fund system or ministry inspections do not get to see any of the results. Secondly, a mixed team comprising teachers, prevention officers and professionals produce the occupational safety and health diagnosis tools. These tools then form the subject of a plan for training the teachers and tutors who in turn train the students before they begin their traineeships in the companies.

Lastly, once the diagnosis has been done, the work is presented to the head of the firm and to the tutor who incorporates it into the student's evaluation for the awarding of the vocational diploma. At the same time, companies that so wish can benefit from advice or even funding from the CRAM for the implementation of prevention measures emerging from this audit.

Instruments

The instruments that have been developed for carrying out the risk assessment have been made by a partnership of the national education system and the INRS, an institution dealing with the prevention of risks.

Sector approach

Initiated in 1995 in Alsace, this project is still ongoing and is being extended to the whole of France. The first sector involved was the wood-processing sector, in the form of small semi-industrial carpentry businesses. The students were studying for their final school exams in construction design and planning and

computer-assisted wood manufacture. In this sector, more than 400 students produced an audit in roughly 350 companies in 2001. Work done by some of the students has either been taken into account by the companies concerned or become part of a prevention contract with the associated CRAM.

The geographical expansion of Synergie-Bois continues and is complemented by the creation of teaching tools in the construction and public works trades, the graphical industry, car body works and metallic structures industries. The structure in these sectors is the same as that used in the original Synergie-Bois project. The reason the other sectors became involved was the interest that grew among employers who came into contact with the Synergie-Bois project, e.g. they were part of the same group of local employers, or had participated in a jury where they meet teachers, etc. In this way they got to hear of the project, became interested and then got their sector involved in the project.

Results

The results comprise:

- (i) training given to future workers;
- (ii) help to put into practice the legislation on risk assessment;
- (iii) starting up a dialogue on OSH between the different generations;
- (iv) CRAM moving away from a logic of OSH control to a system of advice, particularly with regard to micro-businesses.

Employers in others regions and in other fields or economic sectors were quite willing to adopt the project. They had seen that the quality of the risk assessment was satisfactory. The partnership between employers and students works well.

In order to support the initiative and to guarantee the basic principles of this approach, a national resource centre has been created in collaboration with the National Education Ministry, the Alsace-Moselle CRAM and the INRS (National Institute of Research and Safety). This resource centre gives educators tools for diagnosis, pilots the creation of tools in the new sectors of industry, gives training support to the CRAMs and the regional education authorities for the implementation of this approach in the regions, and maintains a permanent information point for the businesses that volunteer.

Problems faced

The main issue is to convince employers to join the project because some of them think that it is not realistic to let a student who knows nothing about the factory perform the risk assessment. The best investigators are the employers themselves who talk about the project with their counterparts.

Factors of success

Synergie offers a concrete OSH training programme to a young audience of future professionals. It initiates a real debate on the problems related to safety and working conditions in companies the moment a young person enters the company as a trainee. It is quite easy to motivate the student, since the work he or she does is set in the environment that could later be his or her working environment.

The direct benefit for the employer, and the guarantee that the document is strictly confidential and will not be turned over to the health insurance fund, makes the project interesting for the employer as well.

Transferability

Since the obligation to write a risk assessment is widely spread, it is very feasible to transfer this idea to other countries or languages. And vocational education also implies that the students have to spend time in plants or factories. The two practical conditions for the success of this project in other countries are thus fulfilled. Everything depends, however, on the climate in the companies and the schools.

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3.3.3. 'STUDENTS MAKE MACHINES SAFE', BELGIUM



Technisch instituut Scheppers, Herentals

Key points of this project

- Students, teachers, prevention officers and people from the world of work collaborate on a project of safety improvement
- The project starts with a risk assessment and runs until the situation changes
- To raise awareness that students are also responsible for OSH and that they can do something about it

Introduction

In a technical school, students, teachers, prevention officers and people from professional life worked together in a project of safety improvement. The lathes the students were working with had to be turned into safe machines. The whole process of making a risk assessment, defining and assembling the necessary safety measures was developed in interaction with the students.

Background

Students in technological education are trained to become welders, electricians, turners or millers, etc. The training involves practising with machines the students will later use in their working life. However, due to the rapid evolution of technology and the limited budget of the school, schools often have no choice but to work with old machines. Nevertheless, these have to be in accordance with current legislation and European directives.

This particular school found itself confronted with old non-compliant machines. High costs meant that buying new machines was not a possibility. The best solution turned out to be the adaptation of the existing lathes. The school could count on a motivated staff of teachers and prevention officers. They made an appeal to a neighbouring company that worked with similar machines. Finally it was decided to set up a project where the students participated actively in the whole process of adapting the machines to the current standards.

Aims

What are the main goals of the project?

- (i) Turning unsafe machines into safe machines.
- (ii) Applying all the skills pupils need to possess in an OSH project.
- (iii) Raising awareness that OSH is also their responsibility and that they can also do something about it.

The first goal is easily verifiable. It can be checked whether machines are now safe or not and in accordance with the legislation.

To what extent students have mastered the different skills will be verified as the project continues: Are they able to cooperate with their fellow students? Do they consult the experts (communication skills)? Do they have the technical skills when putting into practice the safety measures that have been proposed?

Scope

The main issues of the project were:

- participation from the beginning until the end;
- raising awareness of OSH;
- direct link with professional life.

In the last year of their studies, the students have to do an 'integrated test', which includes all subjects and skills they have been taught in the year. The test runs throughout the entire school year and involves professional skills, manual skills, general knowledge, and communication skills. During the last trimester, four hours a week are reserved for working on the integrated test. The final result is a diploma or certificate.

The adaptation of the lathes fits perfectly into this scheme. The students start from an unsafe situation and try to turn it into a safe situation, working together and complying with the legislation. To do so, they appeal to general knowledge, maturity, communication techniques and manual skills. In the project, students of the sixth grade (17–18 years old) were involved. Since there were mechanical, technological or other adaptations to be made, the project was set up as a cross-section (involving e.g. mechanics, welding, electronics) and cross-subject initiative. In other words, it involved different subjects.

The project started in 2000, with initially two lathes per school year being adapted. In a second phase four lathes were transformed and later on the same procedure was applied to other machines.

Several partners were involved: teachers, the safety officer of the school, the students and the safety officers of a neighbouring company.

As a first step, the safety officer of the school checked the legislation and applied the relevant issues to the machines. It was of little use to involve the students here, since the legislation is a complex matter and requires a certain degree of acquaintance with the subject. Once decided which standards had to be met, a risk assessment was set up together with the students and the teachers. The risk assessment involved two parts:

- (i) a checklist with the minimum standards for machines as stated by Belgian legislation;

- (ii) a task analysis including photographs of the machine and of the people using the lathes. The photos made clear that the users had (sometimes unconsciously) found some 'tricks' to avoid safety measures or to solve certain problems.

The results of the risk assessment were studied and the pupils, under the guidance of the teachers, proposed several measures. The measures were discussed and the students themselves finally put the best ones into practice. The result can be seen in the picture.



The school already had a close partnership with the world of work in the shape of the project itself. However, this was only the start. As a follow-up to the project, a VCA training course was organised for technical advisers, teachers and students ⁽²⁶⁾. This in combination with the project would mean a significant bonus for the students, the future workers. The considerable financial cost would be a burden for the school (courses, slides, CD-ROM). The company offered to pay the costs and on top of that, made two safety officers available for the courses. Seventy-four students and eight teachers followed the training. The course was given by the two safety officers, five teachers (who had already obtained VCA) and the prevention officer of the school (for legislation). Seventy-two students and eight teachers obtained the certificate.

⁽²⁶⁾ VCA: Veiligheids Checklist Aannemers. This is a course dealing with all safety aspects and is seen as a guarantee that the company or individual works in a safe way.

Results

In the course of the academic year the following evaluations are planned:

- (i) three interval evaluations: this evaluation gives the teachers the possibility to redirect the project;
- (ii) one final evaluation at the end of the school year.

These evaluations take place in collaboration with people from the world of work.

Evaluations have shown that pupils see this project as a bonus. Registering the shortcomings in the domain of safety as well as assembling the safety measures has improved their safety awareness.

The method is also applicable to other machines, so the school happily reuses the tool for a different type of lathe, and for other machines. Moreover, the approach seemed so successful that it has also been taken over by enterprises.

Interval evaluations already show that this project has a concrete surplus value for the students. The acquired know-how and the fact that they register the improvements for safety themselves will be seen as an economical extra in their future industrial career.

The project won first prize in two safety contests, which is a confirmation of the students' efforts and strengthens the argument for presenting this case as a good practice to other schools.

Problems faced

Background elements of this project are:

- (i) that only a small number of pupils can participate;
- (ii) the difficulties in transferring this project to other schools. There is a danger of 'overestimating' the mere fact of performing a similar project. Things like this should be well supervised with meticulous guidance and thorough follow-up. In this school this was the case but the danger exists that other schools are satisfied with just the idea of having students adapting machines, without sufficient supervision or guidance;
- (iii) that, in developing the safety measures, the students were confronted with technical problems. They had to change their original plans and look for alternative solutions.

Factors of success

The project involved students, teachers and people from the world of work. On a pedagogical level, the project involved different skills. The students had to work together, to cooperate with other students but also with their 'supervisors'. Technically speaking, they had to make the changes on the machines themselves and use their creativity to find solutions for problems that came up while the transformation measures were carried out.

The link with professional life is present in two aspects. The students receive concrete help from a neighbouring company — and the subject of the project is a machine, with which they are likely to work in their future working life. They

experience therefore that OSH is a reality, that people are involved in this and that, at least to a certain degree, they do have the means to do something about it.

Transferability

Every school will have its own specific machines but the idea as a whole is easily transferable to other schools. The main condition is that there must be good guidance from the experts and teachers, and that the project is centred on the idea of OSH awareness.

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3.3.4. 'CHECK IT OUT', UNITED KINGDOM



Health and Safety Executive, HSE, London

Key points of this project

- To raise awareness amongst pupils of the need to assess, manage and control work placement related risks
- To develop a video pack aimed at pupils to assist them in assessing and controlling risks
- To provide teachers with a video of education issues regarding OSH risks

Introduction

The 'Check it out' video pack is a teaching resource aimed to introduce young people (ages 14 to 18) that are about to embark on work placements to the risks they might face and the methods for controlling them.

Background

In June 2000 the UK's Deputy Prime Minister launched the 'Revitalising health and safety' initiative that injected new impetus into the health and safety agenda ⁽²⁷⁾. The initiative identifies a range of priority areas to be addressed by the Health and Safety Executive (HSE) — the national regulator for health and safety at work. One of the action points that came out of the 'Revitalising' initiative was that risk concepts and health and safety skills should receive greater coverage within schools. The concentration on risk education for young people is considered important for at least two reasons. Firstly, young people are most at risk from dangers that we all face owing to their relative inexperience. Secondly, many potentially health damaging habits are formed during the years of growing up and are considered to influence adult behaviour.

As part of compulsory education in England and Wales all school pupils at key stage four (ages 14 to 16), and in Scotland all pupils in their final term of secondary level year three (ages 14 to 15) can take part in work placement schemes. Work placements are intended to prepare young people for their future role as employees. These schemes involve pupils entering a place of work and participating in work activities for a period of two or more weeks. Work placement schemes are in most cases a young person's first introduction to the world of work.

Without appropriate job training young people are particularly vulnerable to the risks associated with work. Recent research has identified that young people aged 16 to 24 have the highest risk of accidents at work. Between 1996 and 2001:

- 54 young people (below the age of 18) were killed in the workplace;
- 12 599 suffered serious injuries (e.g. broken limbs, amputations and serious burns).

The 'Check it out' video package is a response to the 'Revitalising' initiative's call for greater provision of risk education for young people, and represents part of the HSE's ongoing work programme to reduce accidents in the workplace. It concentrates on four sectors: catering, musical industry, hairdressing and on the workfloor in the factory.

For the purposes of educating school pupils about the risks that they may face while on work placements the 'Check it out' video package (i.e. video and other educational resources) provides insight into the place of work. It is intended to introduce pupils to a range of hazards they may face in the work environment, how to recognise hazards, assess consequent risks and take steps to control the risks to themselves and others. It is based on established approaches to increasing levels of awareness, and improving safety standards, by targeting information and advice at members of this group.

HSE commissioned the development and production of the 'Check it out' video and information package. The cost of the video production and development of the supporting materials was EUR 70 000. The 'Check it out' package was launched in England in September 2002. Single copies of the video pack are available free of charge to all schools in England, Scotland and Wales. Otherwise there is a charge of EUR 42 for the video and resource pack, or EUR 35 for the video. Under this charging arrangement, the video is being disseminated to all schools and other interested parties that request a copy.

⁽²⁷⁾ Department of Environment, Transport and the Regions (DETR), 2000.

Aims

Aims of this project are:

- (i) to raise levels of awareness amongst pupils of the need to assess, manage and control work placement related risks;
- (ii) to develop a video pack aimed at pupils to assist them in assessing and controlling risks associated with work placement activities;
- (iii) to provide teachers with a video pack that will assist them when:
 - raising pupils' awareness of the importance of managing work placement related risks;
 - raising pupils' awareness of each stakeholder's responsibilities for managing health and safety in places of work;
 - educating pupils about methods for assessing the risks associated with work activities;
 - identifying suitable work-related risk control measures.

Specifically, it aims to provide teachers, who are unlikely to possess technical knowledge or expertise in risk assessment, with a pragmatic teaching approach to work-related risk assessment and management.

Scope

The 'Check it out' video pack is available to all secondary schools in England, Scotland and Wales that have pupils involved in work placement schemes. Although the pack does not relate to specific curricular subjects, it is anticipated that the subject matter would contribute to the fulfilment of teaching requirements for a number of subjects (e.g. personal, social and health education, and citizenship).

The packs can be used in a number of ways, and the nature of implementation is left to the discretion of individual teachers. It is anticipated that screening the video without further discussion or individual or group activities would be the least optimal of uses.

The 'Check it out' video pack includes three main components: a 20-minute video, an information pack for teachers, and pupil exercises (handout sheets).

The video

The video documents four school pupils' experiences while on work placements in the hairdressing, restaurant, music, and printing industries. As such it identifies a range of hazards that work placement pupils may encounter (e.g. chemicals, falls and manual handling). The video identifies risky activities and what can be done to avoid harm. It also portrays the type of relationships that might exist between pupil and employer, and identifies the importance of generating good levels of communication, especially with respect to health and safety issues.

On their own videos do not always guarantee that the viewing audience is fully engaged with the messages that are being sent out. To overcome related problems, follow-up activities have been provided that link to the video. Some degree of additional engagement with the video information is also required.

The information pack for teachers

The video pack resources include suggested teaching approaches, lesson plans and lesson resources (e.g. overhead projection sheets).

The pupil exercises

The pack includes six exercise sheets for school pupils. The exercises encourage pupils to consider risks that they face in everyday life and ones they might encounter during their work placement. Importantly, the exercises aim to reinforce the messages that are delivered through the video, by encouraging pupils to consider the scenarios played out by the four pupils on their work placements.

The video pack is distributed by the HSE.

Results

Although the video pack has not been formally evaluated it has received positive responses from schools and the safety/education press (e.g. *Health and Safety at Work*, April 2003).

Furthermore, following requests from schools, 1 500 video packs were distributed within the first three months of the launch. This level of interest provides some evidence of the level of need by schools for quality, risk-assessment education resources.

Following their own assessment of the video pack, the Health and Safety Authority of Ireland have ordered bulk copies.

Factors of success

Given that the video is produced by the HSE, the national regulator for health and safety, it gains some level of authority. In most cases teaching staff will be aware of the strategic aims of the HSE, and as a consequence it is probable that they will endorse its usage.

The video package provides a range of teaching resources. Using only the video may not have the desired effect, or have any lasting impact on the target audience. The pack provides suggestions for additional learning activities, which are intended to link to the video and engage the pupils at greater levels of interactivity.

An experienced teacher developed the teaching resources. This has ensured that the resources are relevant (they address national curricular topics and teaching points) and high quality.

Transferability

It is widely reported that school pupils become distracted from the core message of videos if the cultural reference points (e.g. language and dress) are out of date, or do not address the peer group. It can be assumed that risk messages will need to reference current cultural codes if they are to gain acceptance by culturally astute pupils.

As the video package includes teaching resources that make reference to the English national curriculum, some amendments would be necessary if the packs were to be adopted in other national settings.

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3.3.5. 'YOUNG PEOPLE WANT TO LIVE SAFELY', GERMANY

Wettbewerb
2003



Landesverbände der gewerblichen Berufsgenossenschaften, Düsseldorf

Key points of this project

- To integrate OSH into the curriculum of vocational schools
- To reach the target group using a competition with attractive prizes and by presenting the material in an entertaining way

Introduction

Jugend will sich-er-leben ⁽²⁸⁾ is an information campaign aimed at students in vocational schools. It is perceived as a competition to promote safety and health at work among young people. This annual competition was first introduced in 1972 and has reached over six million students since then.

Background

It is shown that young people are very accident prone. For example, every year about 150 000 accidents occur with hand tools. In 40 % of these accidents, young people of 18–24 years old are involved. This age group also represents about 20 % of the serious accidents. However, outside the workplace they are also a vulnerable category. More than 100 000 young people (18–24 years old) are the victims of traffic accidents, 1 700 of which are fatal.

The regional offices of the Employer's Liability Insurance Association wanted to do something about the high number of accidents and started up the *Jugend will sich-er-leben* project. It was first introduced in 1972 in an attempt to mainstream OSH into education using suitable materials for the target group: young people in a classroom environment. It is financed by the Arbeitskreise for occupational safety, of which the federations (*Landesverbände*) of the Employer's Liability Insurance Association are members (*Berufsgenossenschaft*). The *Arbeitskreise* brings together all institutes involved in occupational safety: trade unions, employers' organisations, federations and public accident insurers (*Unfallversicherungsträger der öffentlichen Hand*), social and cultural authorities, occupational safety engineers, etc.

⁽²⁸⁾ A play on words, meaning both 'Young people want to live safely' and 'Young people want to experience themselves'. This was introduced recently, to make the title sound more trendy. The old title was *Jugend will sicher leben* which only means 'Young people want to live safely'.

Ambitions and goals

The goal of the project is to integrate OSH content into the curriculum of vocational schools. A small number of annually changing subject areas are regularly presented. By using a competition format with attractive prizes and by presenting the material in an entertaining way the initiators try to reach the target group as effectively as possible.

Scope

Since the introduction of the *Jugend will sich-er-leben* project in 1972, over six million young people have taken part in the competition. Every year, some 800 000 students in vocational schools are addressed by the *Arbeitskreise*.

Among the materials the schools receive is a factsheet in which the subject is presented in an interesting and entertaining way. Part of the sheet is a questionnaire, which can be filled in by the students at the end of the class in order to take part in the competition. All answers are collected in the school and sent to the nearest regional office. A winner is drawn at random from all correct entries. There are 1 800 prizes for students, totalling EUR 80 000. There is also a prize for the school with the highest proportion of participating students.

Each year, the competition focuses on a different subject area. The annually changing subjects are: electricity, noise, falls, dangerous substances, sitting/lifting/carrying, on the way to work, and health and safety aspects of computer work. The treatment of the subject goes beyond a merely occupational focus. It includes other domains of life such as home or leisure time. This makes it possible to use the lessons in different ways.

The material consists of a video film and background material for the teachers who introduce the subject. Some of these films have won international prizes. For this year's competition, a CD-ROM was produced containing a Flash film with an interactive storyboard.

The project always starts after the summer break and continues through autumn and winter. Some regional offices send staff into the schools to work with the teachers.

The project ends with a special presentation in the schools, in which the prizes are handed over and the students themselves prepare presentations such as short plays or exhibitions presenting the subject in a creative way.

Results

The project has been running for 31 years with over six million participants, which indicates that the format is working. Also the fact that the participation rate has constantly risen over the years speaks of its success. The feedback from teachers and students is positive, which can also be seen in the activities initiated by students, such as the exhibitions and plays mentioned above.

Problems faced and factors of success

One of the problems faced is to keep the material and the subject matters up to date. This is achieved by introducing new subjects such as computer technology, and to incorporate the changing lifestyle and aspirations of young people (reflected in the change of title mentioned above, for example). Another

factor of success is the careful incorporation of new teaching materials like CD-ROMs into the process.

Transferability

The basic concept of the project is not culturally specific and therefore could be transferred to other countries. The only problem would be the organisation. Highly centralised countries might lack suitable regional entities that could organise a project like this on this scale.

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3.3.6. 'OSH INTEGRATED IN CURRICULAR STANDARDS', ITALY



Italian National Institute for Prevention and Safety at Work, ISPESL

Institute for the Promotion of Employees' Vocational Training, ISFOL

Key points of this project

- To make OSH training in school more efficient by planning and testing standard training modules on OSH topics in the building, electricity/electronics and mechanics sectors
- To develop adequate teaching aids (audiovisual, games, etc.) and to adopt active teaching methods (simulations, case studies, etc.)
- To plan and test curricula in OSH according to the methodology of the credit transfer training units (CTTUs)

Introduction

The lack of training is partly responsible for workers' shortcomings in the sphere of occupational safety and health. To significantly improve prevention activity, it is thus very necessary to introduce occupational safety and health topics in teaching and training programmes.

In order to make OSH training in schools, industrial technical institutes (Iti), professional state institutes for industry and crafts (Ipsia) and vocational training centres (Cfp) more efficient, standard curricula in the building, electricity/electronics and mechanics sectors have been screened. Specific training modules and tools were developed for teaching OSH in vocational schools and vocational training centres.

Background

The project stemmed from the assumption that the teaching of safety both in schools (Iti and Ipsia) and vocational training centres (Cfp) did not quite meet the needs of society at large and the working world. The enforcement of Legislative Decree 626/94, as amended from time to time, and its impact on the working environment put topics relating to accident prevention and safety of workers into prominence.

ISPESL, the Italian National Institute for Prevention and Safety at Work in cooperation with ISFOL, the Institute for the Promotion of Employees' Vocational Training, cooperated as follows:

- (i) They carried out nationwide reviews and appraisals on OSH topics within the curricula of vocational training centres (Cfp), industrial technical institutes (Iti) and professional state institutes for industry and crafts (Ipsia) in the building, electricity/electronics and mechanics sectors. The total survey sample was 313 institutes: 154 Cfp and 159 Iti and Ipsia.
- (ii) They planned, devised and tested purpose-made training modules to remedy the shortcomings detected in the curricula of Cfp, Iti and Ipsia. Seven institutes, 234 students and 13 teachers participated in the project.

Aims

The main aims of the project are:

- to develop a culture of safety for the subjects involved in this research, from gaining awareness of hazards to developing the ability to implement effective prevention and protection measures within the working environment;
- to promote, in schools and vocational training centres, the use of standard safety training modules devised according to methodological criteria leading to action transferability and to the acquisition of training credit;
- to identify innovative and effective methodological criteria in the teaching of safety.

Scope

The project has a twofold scope. On the one hand, a cognitive survey on standard training curricula was carried out in the building, electricity/electronics and mechanics sectors to review the teaching methods of safety-related topics.

On the other hand, attempts were made to remedy the shortcomings detected in the curricula by planning, devising and testing four purpose-made training modules (A, B, C and D). One is general (A), while the other three are specific to the sectors mentioned above.

The following goals regarding the improvement of teaching and training OSH were identified:

- (i) to analyse critical areas and weak points in the teaching of safety;
- (ii) to plan and produce standard training curricula in compliance with current regulations, with special reference to Legislative Decree 626/94;
- (iii) to make students aware of danger and develop the ability to implement effective prevention and risk-reducing measures;
- (iv) to detect deficiencies with respect to equipment, materials, safety tools;
- (v) to create training modules including tools for assessing and monitoring the results attained by each student;
- (vi) to develop active multimedia tools, such as simulation games, etc.

Products in detail

The credit transfer training units (CTTUs) are comprised of a total of 40 hours, divided up into four modules.

Module A

20 hours, including the basic competences that are common in the three sectors under review: building, electricity/electronics, mechanics.

Module B

20 hours, related to the technical and operational area of the building sector, including basic competences referring to the sector, cross-sectional competences in terms of problem solving and problem setting and technical-professional competences.

Module C

20 hours, related to the technical and operational area of the electricity/electronics sector, including basic competences referring to the sector, cross-sectional competences in terms of problem solving and problem setting and technical-professional competences.

Module D

20 hours, related to the technical and operational area of the mechanics sector, including basic competences referring to the sector, cross-sectional competences in terms of problem solving and problem setting and technical-professional competences.

CTTUs 1 Building	CTTUs 2 Electricity/electronics	CTTUs 3 Mechanics
Module A (20 hours)	Module A (20 hours)	Module A (20 hours)
Module B (20 hours)	Module C (20 hours)	Module D (20 hours)

Credit transfer training units (CTTUs)

Three types of tools were developed:

- (i) information tools — devised to gather information regarding students and their eligibility criteria for accessing the different modules and to assess the degree of appreciation for the activities carried out;
- (ii) evaluation tools — devised to assess the training action as a whole and the level of learning reached by the single students and the group/classroom;
- (iii) teaching/training tools — devised to carry out individual and group drills for the purpose of allowing subjects to learn through analysis and synthesis integrated actions on real cases of hazardous situations (simulation games).

When designing and developing the various modules, special attention was paid to the involvement of students through the use of active methods and techniques such as: discussion of cases, viewing of film clips, exercises, simulation games, etc.

Indeed, students were involved in particular situations (very close to reality) and they were able to gain in-depth knowledge of prior prevention and safety issues.

By way of illustration, the simulation game known as 'Cards 626' (general module A) can be mentioned. The purpose of the game is to test, through simple processes and a series of choices, what has been learned during training. In the game 30 cards are given to each player. Each card contains a statement, marked by an identifying letter. Each player has to reject the false statements, identify the true ones and place them in order of importance. The order has to be compared, discussed and argued in a group, chaired by the training officer, who organises and rationalises the results of the various choices made.

The practical exercise 'Evaluate and remove the risk' can be mentioned in sector modules B (building), C (electricity/electronics) and D (mechanics). The exercise involves a preliminary phase in which the training officer points out specific risks (from high to low risk) relating to some job types in the sector under review. The officer describes these specific risks and discusses them with the students, without following any particular order of importance. Each student, using a chart, places the risks described by the training officer in the order of importance he or she believes to be most appropriate, and scores a point for each risk type matching the ranking drawn up by the trainer. The results are used to discuss the contents of the exercise (risk and danger).

The video 'Hunt the risk' is played during the sector modules. The exercise involves the viewing of film clips illustrating the various operations performed during work activity in the sector under review. For each activity the student must indicate on a datasheet: the risks and dangers involved in the action; incorrect worker behaviour; solutions to reduce or eliminate the risk. The

analysis of specific working situations gives students the chance to recognise correct actions and behaviour so that risks and dangers are prevented. In the final phase of the exercise the results obtained by group members are compared in order to discuss the various preventive and protective solutions adopted in different working situations.

Results

As a whole, the testing yielded good results from both a planning and methodological/teaching respect. A comparison of the average values relating to the performances achieved by the students in both basic module A and modules B, C and D (building, electricity/electronics and mechanics) brings out the following considerations:

- (i) the students belonging to the building and mechanics sectors scored well and consistently on both module A and sector modules B, C and D;
- (ii) the students belonging to the electricity/electronics sector whose total score on module A was lower compared to the other two sectors, turned out to be the overall best performers on module C with respect to subject learning (satisfactory assessment).

The improvement in the results obtained by the students in the sector modules is partly due to the interest shown by the sample group in completing the training process started with module A, and partly to the students being more willing to deal with subjects specific to their future job.

Good results were also achieved in terms of students' appreciation for the method used, training tools, and the criteria for assessing preliminary and final results. Relationships between teachers and students were also excellent from both a relational and motivational aspect.

In particular, by using practical/hands-on tools, teachers and tutors were able to involve the students in training activities with a proactive spirit, which proved crucial to reaching the goals set.

Problems faced

During the testing of the modules some problems were faced, the first and foremost being the time allotted by schools and vocational training centres to the testing of the modules. Indeed, the 40 hours required for the use of the basic module plus the sector module had to be carved out of the total hours available at the curricular level. In some cases, testing was carried out in the afternoon hours at the disposal of individual teachers. Another problem was to find suitable areas in some schools where simulation activities could be carried out.

Factors of success

The elements that helped enhance this project lie in the survey carried out on training curricula and in the testing of the training modules devised according to standard criteria.

The use of an innovative approach based on real proactive training-oriented actions as well as the use of multimedia interactive tools turned out to be crucial to the overall and active involvement of the students. By acting on these practical/hands-on aspects it was possible to implement a training strategy

capable of stimulating the individuals to solve real problems related to safety at the workplace. At the same time, the students became aware of working within a group, thereby improving their relational and cognitive skills with the aim of reaching the goals set.

Transferability

The strongly built-in methodological/training features of the modules devised according to credit transfer training units (CTTUs) allow the modules themselves to be used successfully for the training of individuals who work in different high-risk and/or high-hazard manufacturing sectors. This testing is therefore a first important step to trigger off other dissemination actions nationwide, with the application of the training standards acquired resulting in a further improvement in the quality of OSH training provisioning.

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'Snapshots' III

'Your job, your body, your life in the motor trade', Sweden



<http://www.myn.se>

Lead organisation

The Swedish Motor Trade Association, the Swedish Metalworkers' Union and the Swedish Painters' Union

Aim

To provide knowledge on how to minimise injuries due to overload and repetitive strain injury and how to handle thermoset plastic and isocyanates correctly. The project also serves an up-to-date teaching aid on matters relating to the working environment for motor mechanics' streams at secondary schools.

Key elements

- A complete training/information package as well as knowledge tests on CD are provided for workshops and schools.
- The programme is self-instructional and examples of work situations are given to tackle questions about what causes problems and how to avoid them; results can be checked via web pages and experiences and tips are provided.

'School adopts a safer firm', Italy

<http://www.ispesl.it/index.asp?language=2>

Lead organisation

Local health association, local education authority, employers' associations and trade union organisations

Aim

To make students understand how Legislative Decree 626/94 is actually applied at work, through direct contact with the actors in the corporate prevention system and to make them understand how a precise and systematic appraisal of risks can lead to a significant improvement in safety and health at work.

Key elements

- To move on from safety-oriented education to a new strategy in which the school takes on an active role, so that safety aspects can be 'perceived' by pupils as a day-to-day experience.
- Students follow the firm's production activity for several months, learn to perform risk assessments, make observations and suggestions for improving the situation.
- The partners provide teachers and students with assistance during classroom discussions.

'Integration of OSH into agriculture vocational training', Germany



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Lead organisation

Health and Safety Authority of Brandenburg together with the accident insurance authority

Aim

To improve the integration of OSH into the vocational education of tomorrow's farmers, gardeners and forestry workers.

Key elements

- During an evaluation round it was found that teachers themselves requested technical support, to gain more expertise in OSH and that trainees needed technical and vocational OSH skills. Machinery can cost a lot of money and proper skills are therefore needed to operate them.
- OSH experts in agriculture picked the topics for courses and provided information in a manual to teach the teachers. The lectures were summarised and documented in a manual. The second edition was published as a CD-ROM, and developed with the help of students.

'Better be safe' (Sicher ist Sicher), Germany

http://www.good-practice.de/infoangebote_beitrag572.htm

Lead organisation

Federal Institute for Vocational Education, BIBB

Aim

To change student behaviour towards OSH by providing computer-based multimedia material (CD-ROM).

Key elements

- A combination of game, simulation and tests increases the motivation of students.
- Several topics are addressed: house-work transportation, clamping by hand, clamping by machine, working with dangerous substances, working with ladders and scaffolds, welding.

'Instructions about occupational risks', Austria



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Lead organisation

Allgemeine Unfallversicherungsanstalt (Occupational Insurance Institute), AUVA

Aim

To develop general guidelines for education in vocational schools and training on the job for dangerous work situations.

Key elements

- Using the special law on prohibitions and restrictions concerning minors at work, the school curriculum has been influenced.
- Teachers are equipped with new education mediums and could follow a train-the-trainer project on existing legal basics on OSH, risk prevention and the evaluation of workplaces. The media package is called the 'L-Programme'.

'Kids' project, Austria

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Lead organisation

The Labour Inspection, Accident Insurance Board

Aim

To create an initial contact between a pupil and the labour inspection before his or her first employment.

Key elements

- The contact can cover: presentation of OSH issues in the classroom, cooperation in OSH projects in schools or exhibition stands at fairs.
- It is more important to leave a positive first impression of the labour inspection and OSH issues than to talk about the predetermined contents of OSH issues.
- Personal practical experience is very important.

'OSH passport', France

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<http://www.cerp.prd.fr>

Lead organisation

Regional health insurance funds (CRAM) and Académie de Marseille (Regional Education authority)

Aim

To integrate OSH skills into the vocational education and training system.

Key elements

- Experts in prevention participate in the creation of diplomas. Furthermore, the social security body trains the teachers and prepares the students for specific units in OSH.
- When students get their diploma, they also get an OSH passport, with all the certificates of the courses followed and the confirmation of prevention skills evaluated throughout the course. This passport is a true communication tool between school and work.

**'On-the-job learning in the Finnish educational system:
training of work instructors'**



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Lead organisation

Finnish Institute of Occupational Health (FIOH) together with the National Board of Education and the Department for Occupational Safety and Health of the Ministry of Social Affairs and Health

Aim

The aim of this on-the-job learning organised at workplaces is to improve the vocational skills of students and their readiness to move into the workforce.

Key elements

- Organising training for work instructors whose task is to guide students at the workplace. Occupational health and safety matters are especially stressed in this training.
- Developing models for carrying out on-the-job learning.
- Evaluating the project.

'Youth and work', Finland

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Lead organisation

Finnish Institute of Occupational Health, Department of Research and Development in Occupational Health Services, FIOH

Aim

To promote the health and functional capacity of young people, to promote the ability and potential of young people to enter the labour market, and to develop a safe and healthy work environment and work community by setting up an extensive youth and work partnership network.

Key elements

- The network analyses the factors related to the work ability and functional capacity of young people and how these can be enhanced to enter the labour market.
- Working conditions at workplaces and educational institutions are studied.
- Focus is on OSH perspectives in teaching, vocational guidance and on-the-job learning.

'Young workers', UK



<http://www.youngworker.co.uk/home.html>

Lead organisation

Royal Society for the Prevention of Accidents (RoSPA) and Norwich Union (insurance group)

Aim

This website aims to provide an online resource to anyone with the responsibility for young people in the workplace and to the young people themselves.

Key elements

- The site has been produced mainly for three groups of people: for employers (especially SMEs), work experience organisers, and young people who are involved in work experience programmes or are about to start work for the first time.

- Other professionals and those concerned or interested in the health, safety and welfare of young people, including parents and guardians, may also find this website helpful.
- For students, information is given on OSH, including responsibilities at work, facts and figures about risks and injuries, and guidance and checklists to help them through the first few days at work. For teachers, information is given in setting up and coordinating work experience programmes for their students.
- For employers, information is given concerning the health and safety of young workers, including legal requirements, checklists, factsheets and information about health and safety inspectors.

'Veilig en wel', the Netherlands



<http://www.veiligenwel.nl>

Lead organisation

Project organisation of the secondary vocational education system

Aim

This website aims to provide information for vocational education schools on the health and safety issues of students during their education.

Key elements

- Information is given on regulations and the responsibilities of schools and companies during the vocational education of students.
- An overview is given on OSH risk factors for specific sectors (agriculture, construction, economics, care and well-being).
- Control lists are provided to evaluate the health and safety situation of the school, the OSH situation of the company and the OSH knowledge and behaviour of the student.

'Preventive group intervention', Finland

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Lead organisation

Finnish Institute of Occupational Health, FIOH

Aim

To develop a group intervention for graduates of vocational schools aiming at increasing their quality of employment and at promoting their socialisation towards working life and mental health.

Key elements

- In addition to job-search skill training, the group method deals with work socialisation skills: social skills at work and finding initial support in the new job.
- The project revealed the beneficial effect of the method in commitment and relevance appraisals of personal work goals. Therefore, long-term effects are expected on mental health outcomes.

4.



ANALYSIS OF THE PROCESS: HOW TO MAINSTREAM OSH INTO EDUCATION

To promote a prevention culture among future workers and employers, it is necessary to integrate, or 'mainstream', OSH into education.

If children and young people get acquainted with safe and healthy behaviour, if children and young people develop awareness for risks and if they learn to shape their own safe and healthy environment, more safety and health in their future working (and private) life can be expected.

This report presents a broad range of good practice examples for school and vocational education throughout the 15 EU Member States⁽²⁹⁾, representing all stages until the end of compulsory education and covering a whole set of approaches, methods and tools to integrate OSH into the learning process and in the working environment inside and outside of schools.

- But how does the process of mainstreaming work?
- How does one start the mainstreaming activity?
- What are the steps to be undertaken to succeed in mainstreaming OSH into education?
- Does there exist a common understanding of mainstreaming safety and health into education?
- How can a coherent strategy to mainstream safety and health into education at European level be developed?

In this chapter, a basis for a common understanding of mainstreaming safety and health into education is developed in two strands:

1. A model of mainstreaming OSH into education is drafted describing the most important key elements of mainstreaming safety and health into education (Section 4.1).
2. This model is based on an analysis of the 'success factors' of the mainstreaming process following the good practice examples (Section 4.2).

The last chapter (Chapter 5) reflects on the possibility of a strategic approach at European level and on future actions that could be undertaken according to this approach.

⁽²⁹⁾ EU-15: Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden and the United Kingdom.

4.1. OUTLINE OF A MODEL OF MAINSTREAMING OSH INTO EDUCATION

In 2002 the European Network of Health Promoting Schools presented a booklet with models of health promoting schools in Europe. It describes models as they are developed in different cultural, political and economic settings and how they adopt shapes and structures that are compatible with the environments in which they are developing, while still subscribing to common underlying principles of democracy, action, equity and sustainability. Due to the different settings, the editors assume that it is not possible or desirable to create one single, general or global model of a health promoting school. Every model is a result of dialogue and consensus among its 'constructors' and has meaning with a certain value-framework in a particular context.

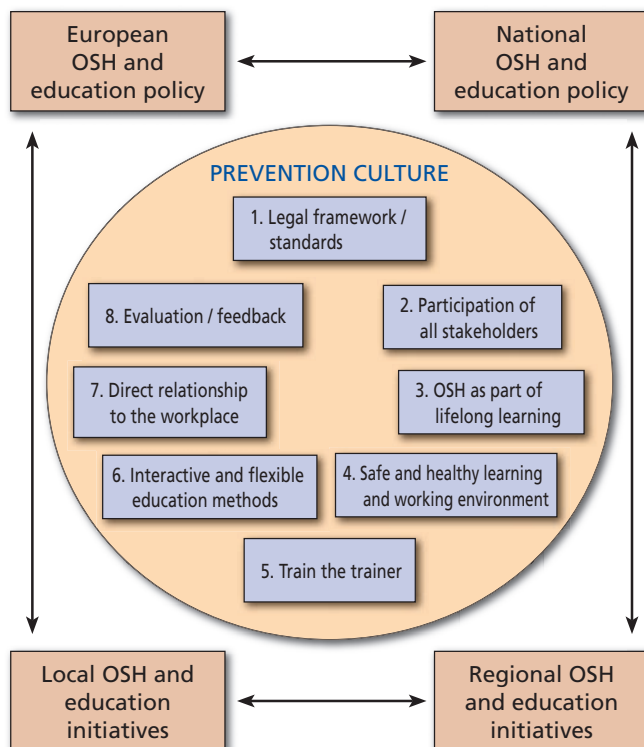
The health promoting school is more a process of contextual interpretation than an outcome of the implementation of global principles. Nevertheless, the different models can be used as a basis in dialogue processes among the health promoting school stakeholders throughout Europe, aiming at developing more sophisticated and challenging new constructions, rather than as 'objective' truths or normative standards ⁽³⁰⁾. In particular, the eco-holistic model of the health promoting school, which is presented in this booklet, became a springboard for identifying the key elements of the health promoting school ⁽³¹⁾.

In this report the model has been used as a basis for a first draft of a model on mainstreaming OSH into education. This model shows the key external influences on the process of mainstreaming OSH into education, as well as internal elements that influence the promotion of mainstreaming within school or other educational establishments.

⁽³⁰⁾ Jensen, Bjarne Bruun and Simovska, Venka (eds), *Models of health promoting schools in Europe*, European Network of Health Promoting Schools, 2002 (<http://www.who.dk/document/e74993.pdf>).

⁽³¹⁾ Parsons, Carl, Stears, David and Thomas, Caroline (United Kingdom), 'The eco-holistic model of the health promoting school', in: Jensen and Simovska 2002, pp. 64–66.

Model of mainstreaming OSH into education



The external elements should not be considered as separate entities, but should form a network of policymakers, as represented by the arrows between them.

The European initiatives should be translated at a national and subsequently at regional and/or local level, with the possibility of continuous feedback during the evaluation of concrete initiatives. This makes it possible to analyse success factors and drawbacks and to have an input for new action plans or strategies. It is also important to evaluate if it is possible for local OSH and education institutions or partnerships to reach formulated aims and ambitions.

The internal factors of the model will be present following the steps described in Section 4.2:

- legislative background: existing legislation and the formal curriculum;
- communication with/between all stakeholders: school, students, parents, employers, educators, job placement agencies, healthcare providers, etc.;
- OSH as part of lifelong learning: safety and health form part of all aspects of the daily and working life;
- safe and healthy learning and working environment: school policy or OSH policy in other educational establishments;
- well-qualified teachers in OSH;

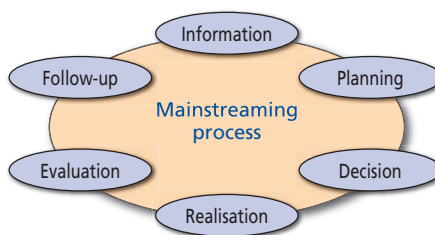
- interactive and flexible education material: age-adapted, attractive, ready-made;
- leave the classroom: contact with the working life, prevention officers, etc.;
- feedback of all stakeholders and evaluation.

4.2. THE PROCESS OF MAINSTREAMING OSH INTO EDUCATION

This chapter describes the integration of safety and health into education as a process covering six different steps. These steps come from a process model ⁽³²⁾ that is often used for quality management and also in the field of vocational education.

The case studies described in this report have been analysed on the basis of this model. The six steps are comprised of 'success factors' identified in the case studies, i.e. factors that supported the successful process of mainstreaming safety and health into education.

The process of mainstreaming OSH into education



The six steps — information, planning, decision, realisation, evaluation and follow-up — are linked together according to a logical order. Following these steps should improve the quality of the mainstreaming process *and* its results.

In the following a short summary of the steps will be given first, then the results of the analysis of the cases and of other sources ⁽³³⁾ will be described in detail.

⁽³²⁾ This model is an open-loop system. It was developed by Walter Volpert within the new science of occupational and organisational psychology and transferred to vocational education and training in the late 1970s.

⁽³³⁾ The outcome of the Bilbao 2002 seminar, a draft internal report on mainstreaming OSH into education (2002) and the results of the first Agency contact group meeting (2003).

(a) A summary of the six steps**Step 1: Information**

Before the project starts the necessary information should be collected, e.g. figures referring to accidents of children and young people, data referring to the number of safety lessons given in schools or data referring to the working conditions in schools and other educational establishments. Last but not least, experience from similar projects should be considered.

Step 2: Planning

It has to be clarified in advance which partners should participate in the project to support the mainstreaming process. Existing experiences and structures can be used for the project, e.g. health promotion networks, cooperation with safety and health authorities and their training institutes. Also the question of funding has to be dealt with in this step.

Step 3: Decision

The first two steps should be completed before a decision can be made on carrying out a pilot study of the project. At this stage the general aim of the project and operational goals should be defined. Deadlines and responsibilities should be described within an action plan.

Step 4: Realisation

This is the implementation phase of the project. Successful mainstreaming activity will more than likely depend on the following factors: the recognition of safety and health as an inherent part of lifelong learning; a broad understanding of safety and health including physical, mental and social well-being; a direct relationship of educational measures to the workplace; and the involvement of experienced teachers to develop the programme and its material.

Step 5: Evaluation

Evaluation should be an integral part of the process. It should accompany and improve the mainstreaming process. Additionally the results of the project have to be evaluated regarding their sustainability and their transferability to other institutions and in other cultural contexts.

Step 6: Follow-up

During the project a promotion plan should be developed and possibilities of a follow-up should be considered.

(b) Results of the analysis of the cases in detail

Dividing the process into six steps should help to give a better view of the success factors and to get a clearer picture of how to mainstream safety and health into education.

Step 1

INFORMATION

Statistics

Statistics or statistical data referring to high rates of accidents of children and young people are an important basis to start the mainstreaming process. Figures can give rise to a project as in the Synergie project, France, or in the German project 'Young people want to live safely' ⁽³⁴⁾.

Research

The process of mainstreaming OSH into education should be research-based ⁽³⁵⁾. In the development phase of the 'National healthy school standard', England, research and consultation with stakeholders of existing healthy school schemes was involved. In the FAOS project a special diagnostic survey was carried out by all heads of secondary schools at regional level in the Prefecture of Archaia, Greece. The Swedish 'School environment round' is based on research on the theme 'Working life in schools', which gathered together the researchers at the Swedish National Institute for Working Life who work on school issues. These researchers have a range of different backgrounds and fields of expertise. For example, the group includes educationalists, noise researchers, ergonomists, sociologists and researchers into bullying. They conduct research and work in schools to implement various development projects ⁽³⁶⁾. In two projects from Italy research is a part of the scope of the project itself ⁽³⁷⁾.

In Finland a national survey on the learning of occupational safety in Finnish schools was carried out in 2003. The aim of this study was to examine the work safety education at all school levels regarding the number of work safety lectures, the methods and the material that is used to carry the lessons out and the qualification of the teachers. A questionnaire was sent between October and December 2002 to a representative sample of all public schools in Finland. The teachers who give most lectures in work safety were asked to respond to the questionnaire. The results showed that the lowest number of work safety lessons in Finland (1–2 hours) was held in elementary schools and the highest amount in vocational schools (15 hours). The most often used method was giving lectures. Textbooks and booklets were the most often used learning

⁽³⁴⁾ A special web feature, 'Statistics help mainstreaming OSH into education and training', is under construction.

⁽³⁵⁾ Azurbi, Francisca, speech, in: 'Learning about occupational safety and health'. A seminar organised in Bilbao (4 and 5 March 2002) by the European Agency for Safety and Health at Work and the Spanish EU Presidency, in co-operation with the European Commission, *Proceedings*, 2002, 47.

⁽³⁶⁾ More information: www.skolliv.nu.

⁽³⁷⁾ 'At the safety school' and 'OSH integrated in curricular standards'.

material. One out of three teachers had received sufficient skills during their professional education to give lectures in work safety, the other third joined the work safety courses given by the trade unions, and the rest gives lectures based on their own work experience. A first conclusion is that work safety training in Finnish schools is not systematic, but depends largely on the activity of the teachers ⁽³⁸⁾.

Similar initiatives

Exchange of good practice of mainstreaming OSH into education before the project starts is necessary to avoid double work. But it may also be helpful to look for similar initiatives in other fields in the neighbourhood. For example, within the 'At the safety school' project (Italy), studies on new methods to improve health education have been carried out and the curriculum approach of this project was closely linked to the 'Michigan model for comprehensive school health education' ⁽³⁹⁾.

Step 2

PLANNING

Reference to existing structures

What kind of structures exist already? How can they be used to mainstream OSH into education? Examples include existing health promotion networks or cooperation with safety and health authorities.

Participation of all stakeholders

The active participation of all possible intermediaries is necessary to develop a comprehensive educational approach to children and young people and to maintain broad-based support. This is presented in several cases of this report ⁽⁴⁰⁾. A broad range of stakeholders was included in these projects: policymakers, representatives of trade unions, employers, parents, pupils/students, teachers, head teachers/school managers, OSH experts.

Possible key players in the community are: schools, employers, parents, peer educators, job placement agencies, healthcare providers and community groups.

Schools

Schools have a direct responsibility to ensure the safety of students in education, specifically in vocational education where specific risks may occur, and an indirect responsibility to prepare children for future life. This includes helping children to develop increasing responsibility for their own and others' safety ⁽⁴¹⁾.

⁽³⁸⁾ Salminen, Simo, *National survey on learning of occupational safety in Finnish schools*, Finnish Institute of Occupational Health; e-mail: Simo.Salminen@ttl.fi.

⁽³⁹⁾ <http://www.emc.cmich.edu/mm/default.htm>.

⁽⁴⁰⁾ E.g. FAOS, Greece; Armi project, Denmark; 'Students make machines safe', Belgium.

⁽⁴¹⁾ E.g. in the 'School environment round', Sweden.

The British Royal Society for the Prevention of Accidents provides a framework for a school health and safety policy ⁽⁴²⁾. Furthermore, part of the young workers website from this society is aimed at teachers involved in setting up and coordinating work experience programmes for their students ⁽⁴³⁾. Information is presented about health and safety in the workplace, including responsibilities at work, facts and figures about risks and injuries at work, and information to help when visiting the placement provider.

Employers

Employers bear direct responsibility and are thus important partners in OSH and education initiatives ⁽⁴⁴⁾. Although they know the legislative issues, they are often uncertain about how to supervise and mentor young people effectively. Reaching out to the employers means:

- identifying local businesses that employ large numbers of young people;
- offering factsheets or brochures to employers and meeting them;
- contacting businesses participating in vocational education placements and local business organisations.

The employer and the educational institutions must work together and ensure that the student is prepared for the working environment. The appointment of a good supervisor/instructor at work is necessary to guide the student and to give feedback. Teaching skills, a broad vision and good teamwork skills are important characteristics.

Parents

Children and young people often turn to their parents for information and advice about jobs ⁽⁴⁵⁾. Besides giving advice, parents must know about workplace rights and responsibilities. In many countries, parents are required to sign a work permit for their child. Reaching out to parents means:

- identifying organisations that are parent-run or that serve parents;
- conducting workshops for groups of parents in the community;
- distributing posters, brochures and other materials.

Peer educators

Young people are effective trainers: they bring energy and enthusiasm to their teaching, speak the language of their peers, serve as role models to other young people, and provide a fresh perspective on workplace issues. Promoting peer education means:

- identifying programmes or people interested in sponsoring peer educators;
- providing materials and training to the peer educator advisers;
- helping advisers to include safety and health in their programmes.

In a similar vein, project leaders need to involve young people at an early stage of a project, to ensure that it is relevant and user-friendly ⁽⁴⁶⁾. It is important to find out what young people want and to work with them on a collaborative

⁽⁴²⁾ <http://www.rosa.co.uk/cms>.

⁽⁴³⁾ <http://www.youngworker.co.uk>.

⁽⁴⁴⁾ E.g. in the Synergie project, France.

⁽⁴⁵⁾ E.g. 'Examples of good practice to promote health and safety in primary school', Italy; 'Preventing accidents to children and young persons in agriculture', Ireland.

⁽⁴⁶⁾ E.g. 'Young people want to live safely', Germany.

basis. Increasingly, teachers are more involved with designing or modifying new programmes, especially involving work placements.

Job placement agencies

The placement agencies often provide training on job tasks and other job-readiness skills, such as proper dress and communication. So they provide an excellent venue for including health and safety aspects, too. Reaching out to job training and placement agencies means:

- to identify the job training agencies and find out what they need;
- to provide materials and training to placement staff;
- to assist job placement staff in integrating OSH into their programmes.

Health care providers

Health care providers share information with young patients about a variety of health risks, but they rarely discuss the risks of workplace injury. Because of their direct contact with young people and their prominence in the community, healthcare providers can be effective advocates for teen worker safety and health. Promoting OSH to healthcare providers means:

- contacting providers in community and school health clinics;
- providing resources and training to medical providers, e.g. distributing videos to share with young patients, putting posters in the waiting room, etc.;
- asking local hospitals to provide data on work-related injuries;
- giving presentations or writing articles for the professional health associations.

More information on stakeholders can be found in the NIOSH-funded community-based young workers' project ⁽⁴⁷⁾.

Legal framework/standards

Although legislation can be a burden or even an obstacle for fresh initiatives, these projects prove that it can also be an incentive and a reason to set up an OSH and education project. Certain projects were borne out of OSH regulations, such as, for example, the 'School environment round' Sweden, the Armi project, Denmark, Synergie, France and 'Check it out', England.

Others found their origins in standards imposed by the educational authorities and/or in the curricula: 'National healthy school standard', England, 'The safe school', the Netherlands, Splaat, England, 'OSH integrated in curricular standards', Italy. Cooperation should be initiated with and among authorities of education, of employment and of health.

Specifically, the 'National healthy school standard' reveals the necessity for strong back-up, guidance and close cooperation from above and works at national, regional and local level. It is clear that good communication is necessary between OSH, public health and education authorities or administrations. Both at and between international and national level, there is a need for enhanced dialogue.

⁽⁴⁷⁾ National Institute for Occupational Safety and Health (NIOSH). Centres for Disease Control and Prevention, *Promoting safe work for young workers*, November 1999 (<http://www.cdc.gov/niosh/99-141.html>).

Funding

Funding is an important dimension of the mainstreaming process. The projects described in this report made use of the following resources: government funding ⁽⁴⁸⁾, accident insurance association and health insurance funds ⁽⁴⁹⁾, public-private partnerships ⁽⁵⁰⁾ and sponsoring ⁽⁵¹⁾.

Starting point

For several projects in this report, national initiatives, or regional or local actions had been the starting point for their activities ⁽⁵²⁾. Also the European Week 2006, dealing with 'youth', offers a good opportunity to start new mainstreaming OSH into education and training projects at national and European level.

Step 3

DECISION

Operational goals

With the backdrop of the 'Revitalising health and safety' initiative in the UK, for example, new national targets for the health school programmes have been set up ⁽⁵³⁾ and the action programme 'Clean working environment' in Denmark set targets to achieve good health and safety standards by the year 2005 ⁽⁵⁴⁾. National target setting forces the process of mainstreaming OSH into education, as far as these national targets have to be replaced by operational targets within the projects.

Action plan

Define the objectives, measures, operational targets and initiatives of the mainstreaming OSH into education project. An action plan should be set up according to the key elements of the mainstreaming process. For example, in case of the 'National healthy school standard', England, these key elements are: partnerships, programme management and working with schools. In the 'school environment round', Sweden, an action plan must be drawn up that includes measures, costs, timetable and divisions of responsibility for implementation.

Pilot project

Before the project will be implemented it should be tested in a pilot project. This can be used to analyse existing material or to test the new material on classes in school or in other education establishments ⁽⁵⁵⁾.

⁽⁴⁸⁾ E.g. The 'National healthy school standard', England; 'The safe school', the Netherlands.

⁽⁴⁹⁾ E.g. 'Young people want to live safely', Germany; Synergie, France.

⁽⁵⁰⁾ E.g. FAOS, Greece.

⁽⁵¹⁾ E.g. Splaat, England.

⁽⁵²⁾ E.g. National: 'Check it out', UK; Armi project, Denmark; regional: 'At the safety school', Italy; local: FAOS, Greece; 'Students make machines safe', Belgium.

⁽⁵³⁾ The 'National Healthy school standard', England; video package 'Check it out', United Kingdom.

⁽⁵⁴⁾ Armi project, Denmark.

⁽⁵⁵⁾ E.g. Armi project, Denmark; 'OSH integrated in curricular standards', Italy.

Responsibilities

A presupposition for carrying out a stepwise participatory approach is a commitment from the initiators of the project and a clear allocation of responsibilities between the different stakeholders ⁽⁵⁶⁾.

Step 4**REALISATION***OSH as a part of lifelong learning*

Safety and health form part of all aspects of the daily and working life. To promote good behaviour among children and young people before they enter working life, safety and health issues have to be included in the school curriculum.

The way this is achieved has changed over the last 20 years. Previous cases demonstrated that OSH is included in the curriculum as a single subject (or course) most often in the science classes. Often it was an add-on or a one-off campaign. A weakness of these campaigns is that wider or follow-up intervention is lacking. Today, a more 'transversal' integration of OSH aspects in different subjects and over the whole educational process is aimed at, taking into account the age and education level of the children. By considering OSH as a transversal subject, it is hoped that the mainstreaming is better achieved during the whole educational process so that OSH is not a onetime action. In the UK, national evaluation criteria (such as OfSTED ⁽⁵⁷⁾) and curriculum guidelines (such as the national curriculum) are important levers for influencing the direction of teaching practice and school management. Furthermore, the OSH programmes should be context sensitive, they should be flexible enough to be tailored to each school's 'local' context and adaptable to different learning contexts.

In this report, nearly all cases take into account the representation of OSH into several subjects or courses ⁽⁵⁸⁾.

How can this be established and achieved in practice? What kind of topics should be presented to the pupils/students?

Information on this can be found in the Michigan model for comprehensive school health education® ⁽⁵⁹⁾. This model was established by several state agencies to provide an efficient delivery mechanism for key disease prevention and health promotion messages, taking into account the education level of the pupils/students. For example, in kindergarten 'lessons' are given on 'Rules to stay safe so we can learn' or on 'Making friends'. In secondary school, topics like 'Managing conflicts and preventing violence' or 'Stay physically active — for life' are addressed.

⁽⁵⁶⁾ E.g. FAOS, Greece.

⁽⁵⁷⁾ Office for Standards in Education, UK: <http://www.ofsted.gov.uk/>.

⁽⁵⁸⁾ FAOS, Greece; 'At the safety school', Italy; 'Examples of good practice to promote health and safety in primary school', Italy; Splaat, England; Armi project, Denmark; 'Preventing accidents to children and young persons in agriculture', Ireland; Synergie, France; 'Students make machines safe', Belgium; 'Check it out', United Kingdom; 'Young people want to live safely', Germany; 'OSH integrated in curricular standards', Italy.

⁽⁵⁹⁾ <http://www.emc.cmich.edu/mm/default.htm>.

Broad understanding of OSH

A broad approach to OSH is necessary, including physical and psychological health and well-being. The risk-factor model needs to be corresponded by a resource model, stressing the properties and capabilities that help maintain, improve or restore safety and health ⁽⁶⁰⁾. It is important to not (only) focus on bad OSH (risks or injuries) but to use 'good OSH' to make OSH an integral part of good living and to encourage responsibility to live healthily.

Direct relationship to workplace

Having a link with daily practical reality and thus professional life seems to be evident when talking about education in vocational schools. Several cases in Section 3.3 illustrate this: Synergie, France, where the student makes a risk assessment in the company where he/she is working as an apprentice; 'Students make machines safe', Belgium, involved the help of professionals of neighbouring enterprises that were included in the technical as well as the training parts of the project.

In this report, the whole mainstreaming process is presented, which already starts with education in primary school (in some projects even in kindergarten). For pupils at this young age, working life is far away and can therefore be an uninteresting subject. For them, an introduction into general safe and healthy behaviour in a playful age-appropriate manner and referring to their daily life is extremely important. Examples of this can be seen in cases like 'At the safety school', Italy, and the other Italian project 'Examples of good practice in primary school' and also in the Armi project. However, it is possible to deal with professional risks with these children by using specific 'attractive' professions (e.g. Splaat, England: construction work) and so the integration of OSH can begin.

The close link with daily life should also be present in the school itself; a 'whole school' OSH approach is necessary, one that starts by having a safe and healthy school environment. This key element is specifically presented in the 'holistic' approach cases.

Involvement of experienced teachers

The development of teaching resources by experienced teachers with a deep insight into school education practice ensures that the resources are relevant and of high quality. This is mentioned in the case study 'Check it out', United Kingdom, and in the description of the Splaat project, England.

Furthermore the enthusiasm of teachers is often the driving force to mainstream OSH into education. The chance for teachers and health and safety experts to work together increases the experience on both sides ⁽⁶¹⁾.

⁽⁶⁰⁾ Hundeloh, Heinz and Hess, Beat, *Promoting safety — A component in health promotion in schools*, Bundesverband der Unfallkassen, Munich, 2001, p. 3.

⁽⁶¹⁾ E.g. 'At the safety school', Italy; 'Students make machines safe', Belgium.

Interactive methods

Explaining and transferring knowledge in a one-way system (teacher explains, student listens and reproduces) is not the best way to transfer knowledge. Educationalists have understood for some time and in the domain of OSH, too, that interactivity has become a fundamental principle. The interactive approach requires an active and creative contribution from the pupil/student, as for example in the 'Young people want to live safely' case, Germany. However, interaction suggests also the co-operation between teachers, students and prevention officers. For the projects in secondary and vocational education, the students often interact, not only with their classmates and peers, but also with their teachers ⁽⁶²⁾, professionals ⁽⁶³⁾ and the whole community ⁽⁶⁴⁾. This makes it clear that OSH is something that goes beyond the knowledge they need to complete a specific degree, that it is a concern of everybody, in all aspects of society.

Flexible methods/material: easy to use, age appropriate, context sensitive

Several projects have developed a great variety of teaching tools. This is an extra attraction for the pupils and of course also for the teachers that can use 'ready-made' material in different forms so that they can think about different ways of learning OSH. The material can be concrete tools ⁽⁶⁵⁾ or different modules offered by the project developers on which the school or teacher can base its/his/her approach ⁽⁶⁶⁾. Adapted tools can also play a role in the right approach for a specific age group. An example of this is the Armi case of Denmark, with the differentiation between the Ar and Mi project (primary school) and the follow-up 'New kids on the job' (15–18 years old).

The learning resources should be developed and disseminated together with different partners to stimulate acceptance and good quality (e.g. OSH authorities, education institutions, social partners, parents and teacher organisations, employers).

Leave the classroom

Safety and health should not be limited to the class room, as for example in Splaat, England, and Synergie, France. Pupils and students can make real experiences and they are given the responsibility for performing health and safety measures by themselves. This increases the transferability of the projects.

Mass media

The importance of mass media should not be underestimated. Within the follow-up to the Danish Armi project, educational television programmes have been developed in close collaboration with the Danish Broadcast Corporation, and the 'New kids on the job' video has had its own broadcasting time on television.

⁽⁶²⁾ E.g. 'Students make machines safe', Belgium.

⁽⁶³⁾ Synergie, France.

⁽⁶⁴⁾ FAOS, Greece.

⁽⁶⁵⁾ E.g. 'Check it out' video, England; 'At Luca's home' CD-ROM, Italy.

⁽⁶⁶⁾ E.g. 'National healthy school standard', England; Splaat, England.

Train the trainer

The importance of well-qualified teachers is mentioned in several cases. Teachers and trainers need to be trained, since they may have little practical experience of the world of work, outside education. Also they may have little knowledge of how to transfer health and safety information. In addition, teachers often mention that they already have a lot to do, and that they are afraid that they will not be able to achieve their 'classic' education goals. This leads to the need to integrate safety and health into the whole curriculum, making it transferable between several subjects. It is also important to stay up to date and implement new knowledge on safety and health issues in education. Furthermore, it is necessary to improve the quality of teaching. Teachers need good teaching tools. However, it is not enough to simply create tools and hand them over to the teachers. The integration of safety and health elements constitutes a considerable change in the learning culture, and its implementation requires innovative educational methods, demands time and patience from everyone involved.

Within the 'At the safety school' project from Italy, a training process model for teachers has been developed for teachers who wish to apply the method of the project.

Often there is a lack in OSH training for teachers. It is crucial to provide training for teachers so that answers are given to questions like 'How should integration be started?', 'What do the students have to know?', 'What are adequate teaching tools?'. The English national curriculum includes a 'general teaching requirement' for health, safety and risk education ⁽⁶⁷⁾. A project to develop national occupational standards (NOS) for learning, development and support services is currently carried out by ENTO, UK ⁽⁶⁸⁾.

Step 5**EVALUATION**

The evaluation of the cases is important to measure the effectiveness of each mainstreaming project. The evaluation criteria of the European Network of Health Promoting Schools could form the basis of the evaluation of OSH mainstreaming projects ⁽⁶⁹⁾.

⁽⁶⁷⁾ Health and Safety Executive, *The new general teaching requirement for health and safety*, December 1999 (<http://www.hse.gov.uk/policy/genteach.htm>).

⁽⁶⁸⁾ <http://www.empnto.co.uk/>. NOS are statements of performance standards that describe what competent people in a particular occupation are expected to be able to do. They cover all the main aspects of an occupation, including current good practice, the ability to adapt to future requirements and the knowledge and understanding which underpins competent performance.

⁽⁶⁹⁾ Wheare, K., 'Second workshop on practice of evaluation of the health promoting school: models, experiences and perspectives', 21–24 September 2001 (<http://www.who.dk/document/E77088.pdf>).

These criteria are:

- (i) the presence of controlled study data showing an impact;
- (ii) a positive change in behaviour and/or school organisation;
- (iii) preserving the good;
- (iv) *a significant number of people participating;*
- (v) *the supporting testimony of participants;*
- (vi) *teachers who are satisfied and feel empowered;*
- (vii) *a response from the community in affirmation of the work done;*
- (viii) *external recognition of the programme;*
- (ix) *continued support;*
- (x) *the integration of evaluation as a normal part of a school's activities.*

Furthermore evaluation should be an inherent part of every project. Evaluation should be carried out during the project continuously and should have a positive impact on the mainstreaming process itself. Interval evaluations give project leaders and teachers the possibility to redefine the goals and to redirect the process ⁽⁷⁰⁾. The evaluation of the project should include a feedback from all stakeholders. Furthermore, empiric longitudinal studies are needed to evaluate good practice in the long run to support a further optimisation of the health and safety infrastructure in schools and outside of schools ⁽⁷¹⁾.

Step 6

FOLLOW-UP

Promotion of products

According to the understanding of mainstreaming OSH into education as a participatory process the products should be disseminated with the support of all partners. If products are free of charge ⁽⁷²⁾ it is easier to distribute them than if they are expensive ⁽⁷³⁾. Exhibitions like the 'Learning about OSH' exhibition carried out by the Agency 2003 in co-operation with ISPESL in Rome are a good way to give experts and interested laymen an overview and to promote a broad range of products ⁽⁷⁴⁾.

⁽⁷⁰⁾ E.g. FAOS, Greece; 'Students make machines safe', Belgium.

⁽⁷¹⁾ 'The safe school', the Netherlands.

⁽⁷²⁾ E.g. Splaat, England.

⁽⁷³⁾ E.g. Armi project, Denmark.

⁽⁷⁴⁾ http://europe.osha.eu.int/good_practice/sector/osheducation/.

Follow-up project

According to the understanding of OSH as part of lifelong learning, a project should not be a one-off-campaign.

A follow-up project could be:

- (i) the follow-up of a pilot project;
- (ii) the transfer of the project model or of existing tools to other schools, organisations, sectors;
- (iii) the improvement of the project model or of existing tools;
- (iv) the development of additional products.

Based on the process model used in this chapter, mainstreaming OSH into education should be a permanent process of development to prepare children and young people for their future working (and private) life and to improve the learning and working environment of schools or other educational establishments.

5.



TOWARDS A COHERENT STRATEGY ON MAINSTREAMING OSH INTO EDUCATION — ROME DECLARATION AND NEXT STEPS

In March 2000 the Lisbon European Council set the ambitious strategic goal ‘to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion’. The modernisation of social welfare and education systems was recognised as a main presupposition to achieve this goal. Never before had the European Council acknowledged to this extent the role played by education and training systems in the economic and social strategy and the future of the Union ⁽⁷⁵⁾.

Against this backdrop new strategies were developed and common objectives were agreed. In the field of OSH the new European Union strategy on health and safety at work was adopted identifying education and the prevention culture as key factors for maintaining and improving the quality of work and asking for appropriate subsequent actions. With regards to education and training, concrete future objectives were defined until 2010 and a detailed work programme to realise these objectives was presented ⁽⁷⁶⁾. An important funding source to realise these objectives are the European Union Leonardo da Vinci programme and the European Social Fund.

Because of Lisbon, now, for the first time, there is a common background for activities in occupational safety and health and in education and training. But to ‘mainstream’ or integrate safety and health into education and training is very much easier said than done. Mainstreaming means to integrate one policy area — occupational safety and health — into another — education. Therefore different systems, with different institutions and thinking, have to communicate with each other and take joint action ⁽⁷⁷⁾.

This report shows in various ways how the mainstreaming of OSH into education is not only possible but it also outlines the necessary steps to be taken in order to carry out a successful mainstreaming process.

Nevertheless up until now there has been no systematic strategy at European level to integrate safety and health into education and training.

A ‘coherent’ strategy at European level

Whereas occupational safety and health is based on harmonisation via EU directives, — and follows a legal approach ⁽⁷⁸⁾ — education and training remain primarily the responsibility of Member States. Therefore it cannot be the aim of education policy to develop a ‘common’ policy, but rather to achieve a higher quality of education and training by cooperation at European level. In other words the European Union does not intend to devise or implement a ‘common’ policy, but a ‘coherent’ European education policy.

Following Lisbon, two documents on education and training are fostering cooperation and coordination at European level:

⁽⁷⁵⁾ European Commission, ‘Education and training. The success of the Lisbon strategy hinges on urgent reforms’, COM(2003) 685, final, p. 4.

⁽⁷⁶⁾ Report from the Education Council to the European Council, ‘The concrete future objectives of education and training systems’, 14 February 2001, 5980/01 and ‘Detailed work programme on the follow-up of the objectives of education and training systems in Europe’, Council of the European Union, 6365/02 EDUC 27, 20 February 2002.

⁽⁷⁷⁾ Bergulf, Morten, Ministry of Employment, Denmark, in: ‘Learning about OSH’, *Proceedings*, 2002, 62, http://europe.osha.eu.int/good_practice/sector/osheducation/.

⁽⁷⁸⁾ Basically Council Directive 89/391 of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work, Official Journal L 183, 29.6.1989, p. 1.

- (i) the 'Copenhagen Declaration on enhanced European cooperation in vocational education and training' ⁽⁷⁹⁾, and
- (ii) the Council resolution on lifelong learning aiming at an enhanced cooperation within vocational education and training, including the whole spectrum of formal, non-formal and informal learning from pre-school to post-retirement ⁽⁸⁰⁾.

Current priorities for education policy at European level include:

- (i) strengthening the European dimension in vocational education and training;
- (ii) improving transparency and acknowledgement of qualifications and competences;
- (iii) improving qualifications and competences at sector level through enhanced cooperation and coordination especially involving the social partners.

The development of a future strategy to mainstream occupational safety and health into education and training should take into account the priorities of the current education policy at European level.

A first step towards the development of such a strategy at European level was taken in Rome in October 2003. During an Italian EU Presidency seminar on 'Mainstreaming OSH into education — The workers of tomorrow', the participants agreed upon the need for a European strategy to mainstream OSH into education and training ⁽⁸¹⁾.

A first step towards a 'coherent' strategy

Rome Declaration on mainstreaming OSH into education and training



During the Italian Presidency seminar on 'Mainstreaming OSH into education – The workers of tomorrow' that took place in the context of the International Conference on Occupational Safety and Health in SMEs on 1-3 October 2003 in Rome, the health and safety experts agreed upon the need for a European strategy based on qualified and quantified goals aiming at preparing children and young people for future working life. The seminar closed with the Rome Declaration on mainstreaming OSH into education and training.

⁽⁷⁹⁾ Declaration of the European Ministers for Vocational Education and Training and the European Commission, convened in Copenhagen on 29 and 30 November 2002 on enhanced European cooperation in vocational education and training.

⁽⁸⁰⁾ Commission Directorate-General for Education and Culture, 'Making a European area of lifelong learning a reality', COM(2001) 678 final, p. 3.

⁽⁸¹⁾ This seminar took place in the context of the International Conference on Occupational Safety and Health in Small and Medium-sized Enterprises on 1–3 October 2003 in Rome and was carried out by the Italian Ministry for Labour and Social Policy in cooperation with the Agency.

Objective

The main objective of this Rome Declaration is to prepare and sustain people during their life, from childhood onwards, engaging schools and any other professional training institutions in actions providing a safer and healthier workforce in the EU of tomorrow.

During the Italian Presidency seminar on 'Mainstreaming OSH into education – The workers of tomorrow' the health and safety experts agreed upon the need for a European strategy based on qualified and quantified goals aiming at:

- preparing children and young people for the challenge of their future working life, ensuring their occupational safety and health;
- providing all citizens and workers, in particular, with lifelong learning;
- improving the involvement of initial and continuing educational and training systems in fostering health and safety in the workplace.

This strategy needs to be clearly focused on young people, particularly in view of enlargement, since, from May 2004, there will be 75 million young people in the 25 Member States of the European Union.

Background

The Luxembourg Consultative Committee for Health and Safety approved in 1998 a guideline document on the need for a global early education and training strategy to ensure better workplace conditions.

The Lisbon Council in March 2000 set the overall strategic goal: 'to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion' until 2010.

The March 2002 seminar in Bilbao, organised by the Spanish Presidency, the European Agency for Safety and Health at Work in cooperation with the European Commission, was the first step in the discussion on the mainstreaming of OSH in education policies and practices at EU level.

The Community strategy on health and safety at work 2002-06 stressed the need for 'awareness raising and education from an early stage on' and stated that education and the prevention culture are the key factors for maintaining and improving quality of work.

New strategies in the education and training field also need to be adapted to the OSH and education approach, for example the concrete future objectives of education and training systems and their follow-up through the European work programme for education and training.

Call for action

This declaration calls upon the European Social Affairs Council, the European Parliament and the European Commission to consider action to:

- implement the European employment guidelines of the Member States to ensure that:

- education and training in safety and health principles are mentioned as means to achieve safer and healthier workplaces and as an important tool for improving the quality of work in Europe;
- qualified and quantified goals for preparing young people for working life by means of education and training are integrated into the employment guidelines. One of these quantified goals could be that 'All young people when leaving school must have received OSH training for at least eight hours within the regular educational course, before 2010'. Each Member State can decide at which stage in school life this training should begin and how it should be delivered;
- every lifelong learning activity foresees an adequate budget dedicated to OSH;
- develop an action plan to mainstream OSH into education and training at European level and to carry out regular actions in cooperation with the European social partners in order to promote it;
- support and participate actively in the European Week for Safety and Health at Work 2006 — Young People at Work;
- support, within the framework of the Commission's vocational training activities, the development of European networks for safety and health vocational training in different sectors.

The declaration calls upon the EU Member States and accession states and their social partners to consider:

- setting national goals and developing coherent strategies for preparing children and young people for working life by means of education and training;
- setting qualified and quantified goals for improvement of the working environment in schools and other educational establishment;
- exchanging good practices of mainstreaming OSH into education and training in an enlarged European network group of OSH and education training experts;
- participating actively in the national organisation of the European Week for Safety and Health at Work — Young People at Work during 2006.

The declaration finally calls upon the coming EU presidencies of Ireland and the Netherlands to consider relevant action during 2004 to organise an appropriate follow-up to this declaration.

The participants of the Rome seminar hope that this declaration can serve as impetus towards the development of coherent European OSH and education and training policies as a major contribution towards the development of a European prevention culture and thus the improvement of the quality of work and education in the European Union.

The Rome Declaration is the first European initiative to call for the development of mainstreaming OSH into education and training at European level. The objective of the Rome Declaration is to prepare and sustain people during their life, from childhood onwards, engaging schools and other professional training institutions in actions to provide a safer and healthier workforce in the EU of tomorrow.

The Rome Declaration underlines the necessity to define operational goals that qualify and quantify:

- how to prepare children and young people for working life, and
- how to improve schools and other educational establishments as workplaces.

The declaration addresses all European stakeholders, such as the European Social Affairs Council, Member States and social partners. Stakeholders have been asked to implement adequate goals into the employment guidelines, to plan and carry out common activities, e.g. in the context of the European week but also regarding the development of networks at sector level to improve the quality of vocational education and training. The Rome Declaration also calls upon the European presidencies to put the topic on their agenda.

A follow-up to the Rome Declaration

An active follow-up to the Rome Declaration could cover the following tasks:

1. Awareness raising for the necessity of common activities to mainstream OSH into education and training, in particular by addressing the Directorate-General for Employment and Social Affairs and the Directorate-General for Education and Culture.
2. Common actions of the Ministries of Labour and Education to mainstream OSH at national and European level, e.g. in the context of the EU presidencies.
3. The establishment of a 'troika' mainstreaming group of the Italian, Irish and Netherlands' EU presidencies to start an active follow-up to the Rome Declaration.
4. The consolidation of the Agency contact group as a platform for the exchange of experience and cooperation on mainstreaming OSH in education and training throughout the whole of Europe.
5. The definition of operational goals for the integration of safety and health into education and training to be included in the next generation of employment guidelines ⁽⁸²⁾.
6. The promotion of Agency products referring to the integration of occupational safety and health into education and training at national and European level and paying special attention to the new Member States.
7. The implementation of a mechanism to monitor the progress of mainstreaming OSH into education in a more structural and systematic way, e.g. by yearly reports within the work plan of the Member States' focal points or by a special monitoring group authorised by the Agency contact group.

These tasks and the next steps to be taken to mainstream OSH into education and training at European level will be summarised in a proposal for a 'road map' at the end of the report. This proposal should help to describe concrete actions and define their dates and responsibilities as far as possible.

⁽⁸²⁾ Council of the European Union, Council decision of 22 July 2003 on guidelines for employment policies of the Member States.

Impact of enlargement

From May 2004 onwards the central issue will be the integration of safety and health into the education and training systems of 10 more countries ⁽⁸³⁾.

Additionally, cultural, economic and social contexts and different education and training systems have to be taken into account. To date, there exists only a small number of systematic studies regarding the working conditions in the acceding and candidate countries ⁽⁸⁴⁾ and regarding the situation of education and training in these countries ⁽⁸⁵⁾.

At this point only a few aspects will be considered concerning EU enlargement:

- From May 2004 onwards there will be 75 million young people in the European Union ⁽⁸⁶⁾.
- The average level of completion of upper secondary level education in the acceding countries is very high (90.1 %) which is already above the target set for the Union for 2010 ⁽⁸⁷⁾.
- The estimated average of 25–64 year-olds participating in education and training is lower in the acceding countries than in EU-15 (5 to 8.5 %) ⁽⁸⁸⁾ and there is a lack of vocational training offered by companies to their workforce (40 to 72 %) ⁽⁸⁹⁾.
- The number of teachers as a proportion of the active population is often very high in some countries compared with the EU-15. In general teachers' salaries have not progressed in line with average salaries in the acceding countries. Their training needs to be improved and updated to deal with the requirements of the new curricula being developed and of the new pedagogical and methodological approaches, including the use of information and communication technologies (ICTs) and e-learning ⁽⁹⁰⁾.

At the beginning of 2004 the focal points of all new Member States were asked to nominate representatives to join the Agency contact group 'Mainstreaming OSH into education and training' to exchange information and experience in this field. The report, a accompanying factsheet and a dedicated website will be especially promoted within the new Member States. Their representatives are invited to take part in the second Agency contact group meeting in June 2004 in Dresden.

⁽⁸³⁾ EU-25: EU-15 and 10 acceding countries (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia). The candidate countries Bulgaria and Romania hope to join the EU in 2007. Turkey is not currently negotiating its membership.

⁽⁸⁴⁾ Paoli, Pascal; and Parent-Thirion, Agnès (European Foundation for the Improvement of Living and Working Conditions), *Working conditions in the acceding and candidate countries*, Luxembourg, Office for Official Publications of the European Communities, 2003.

⁽⁸⁵⁾ E.g. European Commission, Directorate-General for Education and Culture, 'A new impetus for European youth'. *White Paper*, Brussels, 2002; European Commission, Directorate-General for Education and Culture, *Le Magazine*. 'Education and culture in Europe', Issue 19, 2003; European Commission, 'Education and training 2010 — The success of the Lisbon strategy hinges on urgent reforms'. Draft joint interim report on the implementation of the detailed work programme on the follow-up to the objectives of education and training systems in Europe, COM(2003) 685 final, p. 24.

⁽⁸⁶⁾ White Paper, 2002, p. 9.

⁽⁸⁷⁾ Interim report, 2003, p. 24.

⁽⁸⁸⁾ Interim report, 2003, p. 26.

⁽⁸⁹⁾ Apart from Spain and Portugal in the EU-15 and apart from Poland, Estonia and Slovenia in the accession countries. 'Enlargement', *Le Magazine*, 2003, p. 10.

⁽⁹⁰⁾ *Le Magazine*, 2003, p. 10.

Next steps to be undertaken

A new focus on vocational training at sector level

The European Union strategy on health and safety at work highlights vocational training as the most important element to strengthen the prevention culture⁽⁹¹⁾. The Copenhagen Declaration underlines the necessity of European cooperation in vocational education and training. The Copenhagen Declaration calls for actions that increase transparency within vocational education and training and which support the development of competences and qualifications at sector level by reinforcing cooperation and coordination especially involving the social partners⁽⁹²⁾.

Following its stepwise approach and taking into consideration these two documents, the Agency's project 'Mainstreaming OSH into education' will focus on vocational training. In 2004 the emphasis will be on initial and continuing vocational training in different sectors. By including initial vocational training, continuity within the Agency's mainstreaming OSH into education project will be ensured.

The Agency will collect good practice examples, systems and programmes of mainstreaming safety and health into vocational training in the construction, transport and hotel and restaurant sectors. All these sectors are working in pan-European cooperation. The model outlined in this report will be used to carry out the data collection in a systematic way and to analyse this data.

During the second Agency contact group meeting the following main questions will be discussed (among others):

- What are the key elements of a successful integration of safety and health in initial and continuing vocational training? Is the model, described in this report, transferable to vocational training?
- What are the common qualifications and competences in safety and health within a special sector? What should a profile of OSH qualifications and competences at sector level look like?
- What are the presuppositions for a mutual recognition of qualifications and competences in different sectors within Europe? How can the social partners support the process of mutual recognition of qualifications and competences in OSH in Europe?
- What are the common qualifications and competences of teachers and trainers in safety and health? What should a European OSH passport for teachers/trainers look like?
- Which priority projects dealing with integrating safety and health into initial and vocational training should be funded by the Leonardo da Vinci programme in future?

⁽⁹¹⁾ European Commission, 'Adapting to change in work and society: a new Community strategy on health and safety at work 2002–06', COM(2002) 118 final, p. 9.

⁽⁹²⁾ Declaration of the European Ministers for Vocational Education and Training and the European Commission, convened in Copenhagen on 29 and 30 November 2002 on enhanced European cooperation in vocational education and training.

The data and knowledge collected in 2004 together with this report will be a first basis for preparing the European Week 2006 which deals with youth.

The year 2006 will be the year to evaluate whether the more strategic approach of mainstreaming OSH into education and training at European level has met the goal of the new European Union strategy on health and safety at work, developing a genuine culture of risk prevention by means of education and training in Europe ⁽⁹³⁾.

Proposal for a road map for future activities

Mainstreaming occupational safety and health into education and training Follow-up to the Rome Declaration

Description of the activity

A declaration to mainstream occupational safety and health (OSH) into education and training was adopted under the Italian Presidency on 3 October 2003. This declaration describes concrete actions to support the mainstreaming of OSH into the education and training process at national and European level and calls upon all stakeholders in the field of OSH and in the field of education to carry out these actions and, in so doing, to cooperate together.

It is proposed to set up a 'troika' mainstreaming group on this particular issue in order to ensure its continuity and the implementation of the goals of the Rome Declaration throughout successive presidencies.

This proposal for a road map targets the period 2002–06, according to the European Union strategy on OSH, but also keeps an eye on the overall strategic goal of Lisbon to be reached by 2010 in the field of OSH and education.

A road map should help to describe concrete actions, define dates and responsibilities as far as possible.

The following main actors could be identified:

Directorate-General for Employment and Social Affairs, Directorate D — Adaptability, social dialogue and social rights: to be asked to coordinate the activities.

Directorate-General for Education and Culture, Directorate B — Coordination of activities concerning vocational training at sector level: to be asked to take care of an appropriate integration of OSH into the Leonardo da Vinci programme.

CEDEFOP should be invited to work together with the Agency.

Social partners (e.g. European Trade Union College, social partners at sector level) should be invited to support the process, e.g. by participating in the second Agency contact group meeting and in the development of networks at sector level to mainstream OSH into education and training.

The Agency is supposed to collect good practice examples, systems and programmes in a systematic way and to emphasise the mainstreaming OSH into education and training process. The Agency should keep in touch with all international stakeholders to foster the development of a coherent European strategy on mainstreaming OSH into education and training.

The Agency contact group consisting of representatives of all Member States, EFTA states, representatives of the Commission and of the social partners, is supposed to be a platform to foster exchange of experiences and cooperation on mainstreaming OSH in education and training throughout all of Europe. The members of this group are closely linked to the national network groups.

Focal points and national networks should be asked to support the process actively, especially by preparing for the European Week 2006.

Existing international networks (e.g. IVSS, section vocational training) should be invited to exchange experiences and to coordinate future activities.

Behind us

March 2002	Seminar 'Learning about OSH'
Agency, Spanish Presidency	

⁽⁹³⁾ Community strategy 2002, p. 9.

February 2003 Agency	Input to the 'Public consultation on the future development of European Union programmes in education, training and youth'
June 2003 Employment and Social Affairs DG	Presentation of 'Mainstreaming OSH into education' to the Advisory Committee on Vocational Training (ACVT) and to the European Social Fund Committee
May 2003 Contact group	First Agency contact group meeting: 'Integrating OSH into education and training policy – Discussion of a future strategy'
October 2003 Italian Presidency	Rome Declaration on mainstreaming OSH into education and training
December 2003 Agency	Call upon the Italian EU Presidency for an active follow-up to the Rome Declaration

Ahead of us 2004

First half of 2004 EU Presidencies	Initiative for a 'troika' of Italian, Irish and Netherlands' EU or successive presidencies for an active follow-up to the Rome Declaration
First half of 2004 Agency	Invitation to Agency focal point network to nominate experts for vocational training as members of the Agency contact group
First half of 2004 Agency	Second Agency contact group meeting: 'Transparency of qualifications and competences in occupational safety and health in vocational training at sector level' including Employment and Social Affairs DG, Education and Culture DG, CEDEFOP and European social partners
First half of 2004 Employment and Social Affairs DG	Presentation of the 'Antenna on improving the working environment' to the 'Forum des liaisons' (a joint meeting of all sectoral social dialogue committees) drawing attention to the possible call for proposals on 'Application and dissemination of innovation' of the Leonardo programme.
First half of 2004 Employment and Social Affairs DG	Request to participate in the new Interservice Group 'Vocational training' (DG EAC B/3) with a focus on using the results of the Leonardo programme (a dynamic forum for exchange of good practices, needs analysis, Leonardo da Vinci feed back etc.)
Second half of 2004 Agency	Request to make a presentation of 'Mainstreaming OSH into education' to the Leonardo da Vinci Committee
Second half of 2004 Agency	Request to make a presentation of 'Mainstreaming OSH into education' to the Advisory Committee on Vocational Training
Second half of 2004 Agency	Meeting with European social partners and education interest groups to promote this report and the accompanying factsheet; Launch of the statistics website 'Statistics helps mainstreaming OSH into education'
Second half of 2004 Agency	Data-collection process referring to mainstreaming safety and health into initial and continuing vocational training in the construction, transport and hotel and restaurant sectors finished
Second half of 2004 European Parliament	European Parliament hearing – request to be made by the Agency

2005

First half of 2005 Employment and Social Affairs DG	Proposal for revision of employment guidelines (Rome Declaration)
First half of 2005 Employment and Social Affairs DG	Production of a guide to the costs/benefits of different types of interventions for OSH prevention
First half of 2005 Agency	Start with data collection referring to mainstreaming safety and health into higher education
First half of 2005 Contact group	Kick-off meeting European network of teachers and trainers in OSH and setting-up of a monitoring group for the mainstreaming OSH into education process
Throughout the year until October 2006 Agency Member States	Preparation of European Week 2006

2006	
First half of 2006 Employment and Social Affairs DG	Revision of employment guidelines (Rome Declaration)
Second half of 2006 Agency Member States	European Week for Safety and Health at Work 2006
Second half of 2006	Report of the monitoring group



OVERVIEW OF CASES

'Holistic' approach

Country	Title	Lead Organisation	Main achievement
Belgium	An idea for an action	Ministry of Culture and Social Affairs (French community) & Red Cross	Diffusion of cases to schools
Belgium	A learning line about bullying	Sint-Amandusschool Meulebeke	Implementing social skills
Denmark	Risikomomentet	Working Environment Council of the Danish Research and Education Sector	Guide with in-depth knowledge for teachers
England	The National Healthy School Standard	Health Development Agency	Nationally accredited regional healthy schools programme
England	The Safer Primary Schools Project	National Health Service R&D Programme	Representatives from whole school community
Greece	FAOS	Preventive Centre of Occupational Risks	Training programme for teachers
Sweden	The School Environment Round	National Institute for Working Life	Participatory discussions and interventions
The Netherlands	The Safe School	APS, National Centre for School Improvement	Increased communication on security and violence
The Netherlands	Towards an accident-free school	Consumer Safety Institute	Physical safety policy
The Netherlands	Safe practical courses	APS, National Centre for School Improvement	Rules and tools for safe practical courses

'Curriculum' approach

Country	Title	Lead Organisation	Main achievement
Denmark	Ar and Mi at School / New Kids on the Job	Arbejdsmiljøradets Service Centre	Age-adopted educational resources for teachers
England	SPLAAT – Safe Play At All Times	Laing Homes Community Programme	Education resource pack related to building site
Italy	At the Safety School	Servizio Medicina Preventiva di Comunità Bergamo & ISPESL	Conceptual and methodological framework for teachers
Italy	Examples of good practice to promote health and safety in primary school	ISPESL & Civic Network of Milan Foundation	Creation and diffusion of didactic tools
Italy	Safety is ... 626 set to music	Polistudio srl	CD with study and musical material on safety
UK	Human Torch	Health and Safety Executive	CD-ROM with innovative teaching chemistry activities
UK	Personal Protective Equipment	Royal Society for the Prevention of Accidents & West Midlands Fire Service	Technology project on protective clothing
Spain	No badis! La prevenció des de l' escola	Departament de Treball, Indústria, Comerç i Turisme	Didactic material for primary schools
Spain	OSH as subject of transversal education	Instituto Nacional de Seguridad e Higiene en el Trabajo	Guides for primary and secondary school
Spain	Erga primaria transversal	Instituto Nacional de Seguridad e Higiene en el Trabajo	Online guide for teachers of primary schools



'Workplace' approach

Country	Title	Lead Organisation	Main achievement
Austria	Kids Project	Labour Inspection & Accident Insurance Board	Contact between pupil and labour inspection
Austria	Instructions about occupational risks	Allgemeine Unfallversicherungsanstalt	Education material and training for teachers
Belgium	Students make machines safe	Technisch instituut Scheppers Herentals	Risk assessment & proposals on safe machinery
Finland	On-the-job-Learning	Finnish Institute of Occupational Health	Training for work instructors
Finland	Youth and Work	Finnish Institute of Occupational Health	Youth and work partnership network
Finland	Preventive Group Intervention	Finnish Institute of Occupational Health	Increasing quality of employment and mental health
France	SYNERGIE	Caisse Régionale d'Assurance & Institut National de Recherche et de Sécurité	Hazard diagnosis by the student at the workplace
France	OSH Passport	CRAM & Académie de Marseille	Additional diploma on prevention
Germany	Young people want to live safely	Landesverbände der gewerblichen Berufsgenossenschaften	Competition for vocational schools on safety topics
Germany	Integration of OSH into agriculture vocational training	Health and Safety Authority of Brandenburg & Accident Insurance Authority	Manual for teachers in agriculture education
Germany	Better be safe	Federal Institute for Vocational Education	Multimedia information & games on safety
Great Britain	Check it out	Health and Safety Executive	Student experiences on work place risks & employer relations
Ireland	Preventing Accidents to Children and Young Persons in Agriculture	Health and Safety Authority	Safety statement (code of practice & risk assessment)
Italy	School adopts a safer firm	Local Health Association & Local Education Authority	Translate legislation into practice in a company
Italy	OSH integrated in curricular standards	ISFOL & ISPESL	Planning and testing standard training modules on safety
Sweden	Your job, your body, your life in motortrade	Swedish Motor Trade Association	Teaching information on motor mechanics
The Netherlands	Veilig en Wel	Secondary Vocational Education Project Organisation	Website with information for specific sectors
UK	Young Workers	Royal Society for Prevention of Accidents & Norwich Union	Online resource for SME employers, work experience organisers and young people



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In order to encourage improvements, especially in the working environment, as regards the protection of the safety and health of workers as provided for in the treaty and successive action programmes concerning health and safety at the workplace, the aim of the Agency shall be to provide the Community bodies, the member States and those involved in the field with the technical, scientific and economic information of use in the field of safety and health at work.

European Agency for Safety and Health at Work <http://agency.osha.eu.int>



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