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Occupational Safety and Health in the School Curriculum: Diversity in School Practices in the European Union

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Abstract
Integration or "mainstream" of safety and health in the school curriculum is a priority for the European Union, specifically, from the publication of the Community Strategy on Occupational Safety and Health (2014-2020) published a document titled "How to adapt to the changes in society and in the world of work: a new community health and safety strategy" (Jansen, 2014). In this sense, fostering a culture of prevention in students, will develop responsible attitudes in both personal and professional life. This paper analyzes, in a comparative way, different strategies and processes of integration of safety and health in school curricula in European Union countries (United Kingdom, France, Belgium, Italy, Spain, etc.). The methodology is qualitative (content analysis) using the "AQUAD Five" software. The sample is the set of institutional campaigns, educational programs, etc. applied in the various European education systems. Finally, promote safety and health in the school curriculum with success and quality assurance in the education of our students must be made from three perspectives: 1) Towards a safe and healthy school: "holistic" approach; 2) Safety and health as a transversal subject at school: "curriculum" approach; 3) Transition from school to working life: "workplace" approach. Finally, our proposal is: To offer key guidelines to improve the educational and organizational performance in the process of teaching and learning (Primary and Secondary Education) and integrate safety and health at school (curriculum) in order to reduce accidents of our future workers

Keywords: occupational safety and health, school curriculum, education, qualitative methodology

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 (Burgos-Garcia, 2015). 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 European Union. To promote a prevention culture among future workers and employers, it is necessary to integrate, or 'mainstream', occupational safety and health 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 (Azeredo & Stephens-Stidham, 2003).

In this sense, it shows of good practice examples for school and vocational education throughout the member states European Union, representing all stages until the end of compulsory education and covering a whole set of approaches, methods and tools to integrate occupational safety and health into the learning process and in the working environment inside and outside of schools (Burgos-Garcia, 2013). 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 (Gray, Young & Barnekow, 2006).

In particular, the eco-holistic model of the health promoting school (figure 1), became a springboard for identifying the key elements (Parsons & all, 2005). The model shows the key external influences on the process of mainstreaming occupational safety and health into education, as well as internal elements that influence the promotion of mainstreaming within school or other educational establishments.

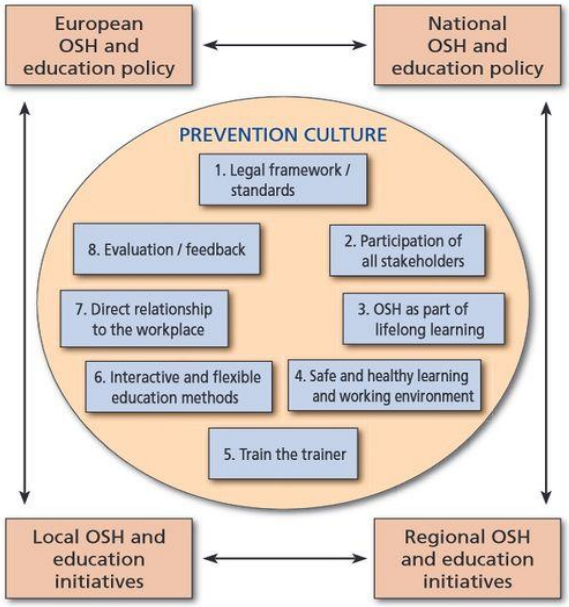

Figure 1. Model of mainstreaming Occupational Safety and Health into education

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 (Hundeloh & Hess, 2007). 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 occupational safety and health and education institutions or partnerships to reach formulated aims and ambitions. A description of the internal factors that have been presented previously, in the figure 1, are:

- Legislative background: existing legislation and the formal curriculum,
- Communication with/between all stakeholders: school, students, parents,
- Occupational safety and health 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 occupational safety and health policy in other educational establishments,
- Interactive and flexible education material: age-adapted, attractive, readymade;

This model is based on an analysis of a six-step process to mainstream occupational safety and health into education (OSHA, 2004).

The Process of Mainstreaming Occupational Safety and Health in School Curriculum

The integration of safety and health in school curriculum s a process covering six different steps (OSHA, 2004). These steps come from a process model that is often used for quality management and also in the field of vocational education. The six steps are comprised of "success factors" identified like factors that supported the successful process of mainstreaming safety and health into education. The six steps (information, planning, decision, realisation, evaluation and follow-up) are linked together according to a logical order (Nyhan, 2008). 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 will be described in detail.

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.

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.

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.

Research Aims

- Guidelines to clarify the educational and organizational performance to facilitate the process of teaching and learning in occupational safety and health.
- Discover experiences in occupational safety and health which show the extent in the educational field.
- Find out the current status of educational institutions as centers of training in occupational safety and health.

METHODOLOGY

Scope of Study: Sample
The sample is given by the "source documents", ie, programs, plans, databases, documents, legislation, etc., relating to occupational safety and health in the school context.

Table 1. Types of documentary sources analyzed

Source	*Documents*	*Objetive analysis*
Primary sources	Newspapers Magazines Institutional campaigns Databases	Retrieving Information from official government records and school: Statistical data, directives, and reports of autonomous centers
Secondary sources	Manuals Materials Textbooks	Analyze information on the evelopment of materials.

These documentary sources provide a way to understand current educational practices, knowing how these practices have evolved and clarify matters related to this evolution (Mcmillan & Schumacher, 2006:524). The scope of study are mainly written sources, specifically, it has made a comparative study of different countries of the European Union through databases, electronic documents, et

Table 2. Educational materials and resources from European Union (countries)

Materials/resources	*Comment (description)*
National healthy school standard guidance	United Kingdom. National program that provides an accreditation process in order to promote cooperation in education and health
“Splaat” Safe play at all times	United Kingdom. Community Campaign "Laing Homes" and conceiving prevention as an area where development of resources, ideas and lesson plans for teachers, based on a construction site.
Check it out	United Kingdom. Teaching materials for the education sector with specific examples of risks in the workplace
The safe school	Netherlands. This initiative focuses on improving communication on safety and violence in and around schools
Safety School (FAOS)	Greece. Development of comprehensive procedures to monitor safety education in schools and implement measures for collaboration between public and private sector
School environment round.	Sweden. Program to design a work environment and learning in schools
At the safety school.	Italy. Conceptual and methodological framework to show teachers and teachers how to integrate occupational safety and health into programs
OSH integrated in curricular standards	Italy. Planning and testing of standard training modules on security in schools and vocational schools
Examples of good practice in primary school	Spain. Development and dissemination at national level of educational tools to foster a culture of prevention
Armi project: “Ar and Mi at school”/”New kids on the job	Denmark. Project to develop basic skills and attitudes and to make a positive contribution to health and personal safety and the environment
Preventing accidents to children and young persons in agriculture	Ireland. Development and implementation of a programmatic document on security that shows how to manage occupational safety and health on farms
Synergie	France. Sectoral project with the objective of the work of students within an enterprise is economically and socially useful
Students make machines safe	Belgium. Manual-preventive and educational guides for students coming to joining the labor market
Young people want to live safely	Germany. Competition for students of vocational schools

Data Analysis
In our research, the model has been developed content analysis (qualitative methodology), defined as a technique that has moved from analysis of the messages based on assumptions of systematization and quantification procedures, to search for latent content (Gummerson, 2001). Cohen & Manion (2007) consider the content analysis as a research method as a research

technique that is used to make reproducible and valid inferences from data. To perform the content analysis, we used the data analysis program "AQUAD Five" with the aim of reducing representation, contrasting goals and verification of data obtained in the documents analyzed. Before categorizing the transcripts, were numbered texts in "AQUAD Five". At this time, the documents extracted are subjected to a conventional content analysis, facilitated by the use of a database program (AQUAD Five), in order to extract possible information for our study (Huberman & Miles, 2003). The documents were divided by units of meaning that had a complete sense. The texts were broken up into thematic units complete meaning, composing each track. This allows text to be split on each registration form, by natural units of speech, without introducing artificiality (Goetz & Lecompte (1991). We elaborate on the Program Database, a record that would introduce each unit of text, categorize and assign to the various dimensions established. Those pieces of text without loading specific semantics were excluded. After the fragmentation of the text into meaning units and introduced into the program (AQUAD Five) analyzes and categorizes each of the fragmented units. The final list of categories and their corresponding codes, which emerged from the analysis, is presented below:

Table 3. Categories (content analysis)

Categories/Codes	
COD	SIGNIFICANCE
INF	Information
PLN	Planning
DCS	Decision
RLN	Realisation
EVN	Evaluation
FUP	Follow-up
HCA	Holistic approach
TVA	Transversal approach
WPA	Workplace approach

RESULTS

The process of mainstreaming safety and health curriculum in European Union countries is determined by the six steps set by OSHA (2004), Nyhan (2008) and Azurbi (2012). In this sense, we show the results of our qualitative analysis, from a comparative perspective.

Step 1: Information

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'. The process of mainstreaming occupational safety and health into education should be research-based. 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. Exchange of good practice of mainstreaming occupational safety and health 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' (Burgos-Garcia, 2013).

Step 2: Planning

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. A broad range of stakeholders was included in these projects: policymakers, representatives of trade unions, employers, parents, pupils/students, teachers, head teachers/school managers, occupational safety and health experts. Possible key players in the community are: schools, employers, parents, peer educators, job placement agencies, healthcare providers and community groups (Weber, 2000).

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. The British Royal Society for the Prevention of Accidents provides a framework for a school health and safety policy. 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.

Employers bear direct responsibility and are thus important partners in occupational safety and health and education initiatives. 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.

Parents. Children and young people often turn to their parents for information and advice about jobs. 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. It is important to find out what young people want and to work with them on a collaborative basis. Increasingly, teachers are more involved with designing or modifying new programmes, especially involving work placements.

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 occupational safety and health 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.

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 occupational safety and health and education project. Certain projects were borne out of occupational safety and health 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, "occupational safety and health 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 different institutions, public health and education authorities or administrations. Both at and between international and national level, there is a need for enhanced dialogue. Funding is an important dimension of the mainstreaming process. The projects described in this report made use of the following resources: government funding, accident insurance association and health insurance funds, public-private partnerships and sponsoring.

Step 3: Decision

Decision is define the objectives, measures, operational targets and initiatives of the mainstreaming occupational safety and health 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. Before the project will be implemented it should be tested in a pilot project. 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.

Step 4: Realisation

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 occupational safety and health 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 occupational safety and health 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 occupational safety and health 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 and curriculum guidelines (such as the national curriculum) are important levers for influencing the direction of teaching practice and school management. Furthermore, the occupational safety and health 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. A broad approach to occupational safety and health 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. It is important to not (only) focus on bad occupational safety and health (risks or injuries) but to use 'good occupational safety and health' to make occupational safety and health an integral part of good living and to encourage responsibility to live healthily. 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 Spain 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 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. Explaining and transferring knowledge in a oneway 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 occupational safety and health, 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 cooperation 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, professionals and the whole community. This makes it clear that occupational safety and health 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. 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 'readymade' material in different forms so that they can think about different ways of learning occupational safety and health. The material can be concrete tools or different modules offered by the project developers on which the school or teacher can base its/his/her approach. 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. authorities, education

institutions, social partners, parents and teacher organisations, employers). 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.

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. 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.

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 occupational safety and health mainstreaming projects. These criteria are:

- The presence of controlled study data showing an impact.
- A positive change in behaviour and/or school organisation.
- Preserving the good.
- A significant number of people participating.
- The supporting testimony of participants.
- Teachers who are satisfied and feel empowered.
- A response from the community in affirmation of the work done.
- External recognition of the programme.
- Continued support.
- 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. The evaluation of the project should include a feedback from all stakeholders.

Step 6: Follow-up

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:

- The follow-up of a pilot project.
- The transfer of the project model or of existing tools to other schools, organisations, sectors.
- The improvement of the project model or of existing tools.
- The development of additional products.

Based on the process model used in this paper, mainstreaming occupational safety and health 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.

DISCUSSION

Diversity in School Practices in the European Union

To achieve integration of safety and health in the school curriculum is necessary to develop good practices and improvement strategies to guide the process of teaching and learning in safe and healthy behaviors in different countries of the European Union. In this sense, we provide strategies for improvement when we analyzed the key elements in the process of teaching and learning in educational levels of Primary and Compulsory Education on the basis of the six steps or "success factors" identified like factors that supported the successful process of mainstreaming safety and health into education (OSHA, 2004).

Towards a Safe and Healthy School: "Holistic" Approach

A "holistic" approach to mainstreaming safety and health in school education aims at Parson & all (2005) and Burgos-Garcia (2014):

- Creating or improving individual attitudes and perceptions of safety and health in school.
- 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.

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) 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) 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.

"School environment round" (Sweden). 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.

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 (Salminen, 2008). The curriculum approach today is mainly based on two concepts:

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

The following four cases offer a conceptual and methodical framework for teachers on introducing occupational safety and health, 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.

"At the safety school" (Italy) provides teachers with a conceptual and methodical framework to introduce occupational safety and health into the teaching syllabus. Safety and health education is understood as a process by which occupational safety and health 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" (Spain). 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.

The "Splaat" (Safe play at all times) (England) 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.

"Ar and Mi at school" and "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.

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 (Miller, Romano & Spice, 2010). The following four 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 occupational safety and health in schools and vocational training centres by developing training modules according to the credit transfer training units' architecture to be used in different sectors.

"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.

"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. 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.

"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.

"Young people want to lives safely" (Germany). This project aims to integrate 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.

CONCLUSIONS

Finally, from our analysis, we think that all european countries must develop a school health policy and should include the safety and health into curriculum together with other aspects of school life. It also needs to be developed locally policies so that it reflects issues, interests, problems and priorities. One key is the finance and resources from Local Administration authorities to impulse safety and health into society. These authorities need the support of Regional or State Government for effective integration of health and safety at school. It should also be a continuous process, with strategies and tools that allow students, teachers, parents and labor-educational Authorities to continuously review policies expressed in Community

Strategy on Occupational Safety and Health (2014-2020). Everyone in the school, including pupils, needs to have ownership, so that it is embedded into people's consciousness, practice, action and behaviour at school. The main conclusion from health-promoting schools is that more participation leads to more ownership. In this sense, improvement strategies for a school's health policy must reflect the following three dimensions:

- Developing a policy takes attention, time and resources, if it is to be taken seriously. It needs to be on the educational agenda in the school and given priority as an important theme. It must also be integrated into the educational process.
- A policy presents visions of what we want in future, both regarding the type of school and society. Visions are subject to public discussion in a democratic society, with people arguing for what they consider valuable and why.
- A policy also defines problems and sets out a framework to solve problems. Defining problems answers the question of which problems are most important and investigates the reasons and causes for the problems arising. Solving problems includes principles, guidelines and proposed action to counteract, prevent and solve problems.

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