

Interpolis

By Rene van Leeuwen, N.V. Interpolis and Diederick Stoel, ProfitWise

1. Facts about the institution

Name of institution	Clients: various / Interpolis N.V.
URL of institution	Clients: various / www.interpolis.nl
Country	Netherlands
Number of employees	1<#<100
Revenue in 2005	< 50 million
Experience with e-learning since	Often first experience / 2003
Business sector	Trade, finance, retail, construction
Target group/participants in e-learning	Employers and employees who are appointed as prevention officers
Content	Prevention officer course
Form	Online web-based
People interviewed	S.C.J. Adriaansen, Programme Manager

In 1989, the European Union issued a framework Directive (89/391/EEG), with the aim of improving the protection of European employees at work. The vision of the Directive was better working conditions for every employee. Occupational accidents and illnesses can be prevented by information, consultation, balanced participation and education, according to the European Council.

To ensure the safety, health and welfare of employees, every organisation in the Netherlands was, until 1 July 2005, obliged to become a member of a Safety, Health and Welfare Service. In this regard, the Dutch government brought together tasks aimed at prevention under the responsibility of a specialised and certified external body (the Safety, Health and Welfare Service). However, the European Court has determined that the Netherlands has not correctly implemented the 1989 Directive. According to Directive 89/391/EEG, the task of ensuring good working conditions must be carried out by an internal facility. In the Netherlands, this admonition has had particularly far-reaching consequences for small and medium-sized businesses.

Since 1 July 2005 businesses, including small and medium-sized businesses, must appoint 'internal' specialists who have the task of protecting against occupational risks: a prevention officer. If a business has fewer than 15 employees, then the operator of the business may carry out this task himself (or herself).

But what does a prevention officer have to know and be able to do? What demands are placed upon his expertise? The compulsory appointment of a prevention officer has brought about a considerable demand for training in the Netherlands. Since 1 July 2005, there are also various training courses which can be followed. The training courses for prevention officers last for two or more days, depending on the occupational risks and the size of the business in question.

For business operators in small and medium-sized businesses, this compulsory investment of time is a major problem. No small or medium-sized business operator wishes to close his business for one or two days. There is simply no time for it. And for many business operators, suspending the production process for two days is equivalent to two days' loss of income. The financial consequences of the European Court's admonition are considerable.

A large insurance company has recognised this problem. As a provider of, among other services, solutions regarding absence from work, the insurance company has, in cooperation with the 'Commit' Safety, Health and Welfare Service, developed an electronic web-based training course. With this 'WerkAttent' programme, a business operator – or one of his employees – can follow a training module online. This takes approximately two hours. If the module is successfully completed, then the business operator receives a recognised certificate at its end. With this, business operators have enough to comply with the legal obligation to have a prevention officer in service.

In this business case study you will learn about how the programme was developed, and what the factors have been which have determined the programme's success.

2. How the institution used e-learning

2.1. The courses

The 'WerkAttent' prevention officer training course is made up of five modules:

- a) organisation of prevention within the organisation;
- b) advice on, and drawing up, a Risk Inventory and Evaluation (RI&E);
- c) advice to, and collaboration with, interested and involved parties;
- d) working together on the implementation of measures;
- e) 'encyclopaedia' function for employers and employees.

The training complies with the legal requirements. It is possible to complete the module in two hours. The exact duration of the training is dependent on the student and the business-specific situation.

2.2. Number of employees involved

At least 4,000 students are taking part in the training (25% of the total target group).

2.3. E-learning platform and technology issues

The platform on which the training is hosted and followed complies with the following criteria: (a) Windows 2000 with IIS 5.0, (b) .NET framework version 1.1, (c) SQL Server 2000, and (d) server side mail component, for example JMail. The business operator of a small to medium-sized business must have at his disposal: (a) an internet connection (56K modem or faster), (b) a personal e-mail address, (c) Internet Explorer 6.0 or higher, (d) the Macromedia Flash 5 plug-in, and (e) a screen resolution of at least 1024 x 768 pixels, or higher.

2.4. Course development

Eight phases can be distinguished in the development of the 'WerkAttent' programme: (a) formulating the proposal, (b) determining the required intervention, (c) specifying the concept and form, (d) specifying the content of the programme, (e) technical implementation, (f) ensuring continuity, implementation and protection of intellectual property, (g) development, and (h) evaluating results.

a. Formulating the proposal: Appointing or training a prevention officer takes time: valuable time which can only be made use of once. The operators of small or medium-sized businesses would rather spend their time on their core business. As a provider of

an e-learning application you have a strong proposal if you can help business operators to solve their dilemma: spending time on secondary processes (such as the work of the prevention officer) or spending time on core business. Helping operators of small and medium-sized businesses to comply with the legal obligation to have a prevention officer in service, in the shortest possible time: that is the proposal of the 'WerkAttent' programme.

b. Determining the required intervention: What is the best way in which the operator of a small or medium-sized business can be helped? What is most **effective**? Business operators are legally obliged to show that they have a prevention officer with sufficient knowledge in service. In addition, they must be able to show that they have made an inventory of any risks in the areas of the safety, health and welfare of their employees. Knowledge, expertise and a risk analysis: these must be the results of the intervention. The risk analysis is also a government requirement. All business operators must draw up a Risk Inventory and Evaluation (RI&E) for their businesses. A Plan of Action has to be included within the RI&E, containing measures to reduce the risks. Outsourcing (to a Safety, Health and Welfare Service) is not permitted: 'do-it-yourself is the watchword. Learning and innovation is therefore the most obvious solution.

c. Specifying the concept and form: What is the most *efficient* way of giving form to the intervention? One way of establishing this is to examine the requirements which the solution must fulfil, and the preconditions within which the solution must be implemented.

When we look at the requirements we can see indications of two issues. There must be (a) demonstrable knowledge and insight concerning the work of the prevention officer, (b) demonstrable risk-awareness in the form of a worked-out RI&E. It is also important that (c) the results of the learning are formally tested. Further, because it concerns a legal regulation, the testing must also be (d) validated by a certified institution.

The preconditions: from the business operator's point of view, the process must take place within a minimum of time, at a time chosen by the business operator himself.

The solution to this quickly becomes apparent: independent learning. An electronic variant, in which data can be collected, transferred and checked, means that the development requirements (c) and (d) can be fulfilled.

On the basis of the above arguments, a web-based e-learning programme has been decided on.

d. Specifying the content of the programme: In this phase, precisely what a prevention officer must know, be able to do and be willing to do is analysed. Within the programme, the business operator must show that he possesses the necessary competencies. With this, he successfully completes the training. The necessary knowledge is gathered with the help of the 'Commit' Safety, Health and Welfare Service. A panel of external experts has tested the validity of the programme. This so-called content analysis and content evaluation has steered the technical implementation of the programme. Finally, the programme is built up of the five modules described earlier.

e. Technical implementation: The decision was made not to construct the e-learning application in-house. An external partner has carried out the technical work.

f. Ensuring continuity, implementation and protection of intellectual property: The specification of a number of formal issues has been an important phase in the development of the programme. Four thousand operators of small and medium-sized will make use of the programme. The legal consequences of any errors, or the cancellation of the programme, would be significant. Three crucial questions therefore have to be given a clear and unequivocal answer: who guarantees the continuity of the programme,

who is responsible for its operation, and with whom do the intellectual property rights rest? Through detailed functional design, action plans and contracts, these are formally dealt with and recorded.

g. Development: The construction of the application took 12 weeks. This is the period agreed in the quotation, up to and including the installation of the application on the insurance company's servers. A User Acceptance Test (UAT) and a Product Acceptance Test (PAT) were then carried out within a period of three weeks. The user-friendliness of the application was tested during the UAT. During the PAT the load of the application on the servers, and possible conflicts with other applications, were tested.

h. Evaluation of results: Within the 'WerkAttent' programme, it is examined on four levels whether the e-learning module delivers the expected results. In this business case study, we categorise the evaluation levels on the basis of the Kirkpatrick's Evaluation Framework (1985): (a) level 1: reaction, (b) level 2: learning, (c) level 3: behaviour, and (d) level 4: results.

With the use of a questionnaire, it is examined whether the programme has provided the small or medium-sized business operator what was promised in advance. With this, the so-called reaction level (level 1) is measured.

A validated knowledge test is taken within the application. The test is made up of multiple choice questions, and tests the business operator on the necessary learning (level 2, learning).

The business operator must draw up a risk inventory and evaluation of his own business, and then translate these into concrete measures: measures which ensure that the risks are reduced. The action points must be sent to, and agreed by, an institution authorised for this purpose. This test examines whether we can conclude that the business operator also changes his behaviour on the work floor (level 3, behaviour).

The reasoning behind this is that, by implementing the action points, the risk of occupational accidents is reduced. Everyone benefits from this. The business operator has lower costs, less absence through illness, fewer occupational accidents. In addition, the insurance company has a clear financial interest. The burden of costs must be reduced as a result of having a professional prevention officer in service. Both the saving for the business operator and the reduced burden of costs are important indicators which say something about the effect of the e-learning programme. We view this test as a level 4 evaluation, including a calculation of the return on investment.

2.5. Course administration

The programme keeps a record of who has taken part in the programme. In addition, some other important details are: (a) the extent to which the participant has advanced in the application, (b) how long he has taken over it, (c) what scores he has achieved in the tests and (d) how the participant evaluates programme. The screenshots below (figures 1 and 2) illustrate how this occurs. We will classify the details mentioned as management information.

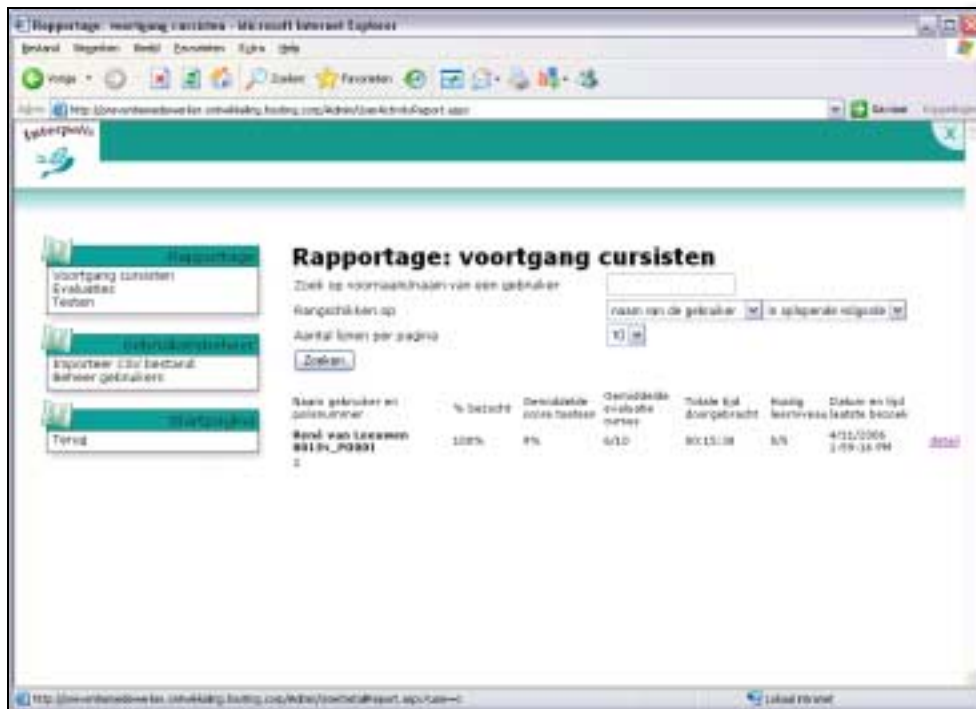


Figure 1 – Registration of the students' progress

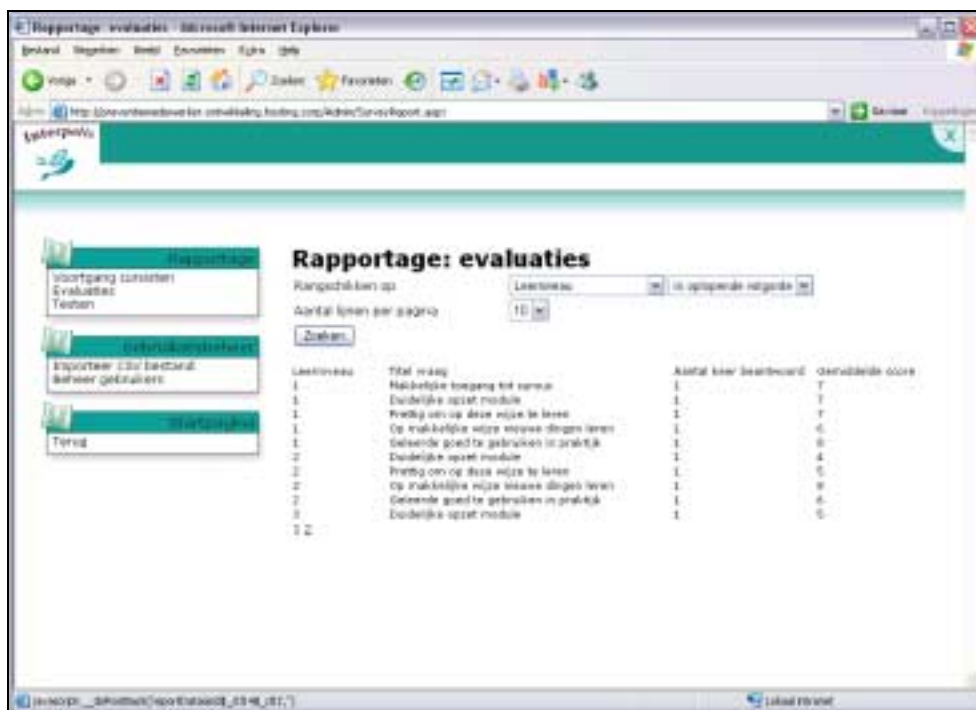


Figure 2 – Report on the evaluations

3. Effects and outcomes of the e-learning activities

The management information clearly shows the students' progress. Student satisfaction is seen in this programme as an important direct effect. It is an indication of the successful completion of the five modules. Student satisfaction is measured five times

during the study process (at the end of the five modules which the student follows). The results are collated, and ultimately it can be seen how the individual student has evaluated the course and its separate modules. In particular, the correlation between the satisfaction and the test results is seen as valuable information to be used in possibly making improvements to components of the programme.

4. Challenges and barriers

Below you will find a point-by-point description of a number of challenges and barriers which came to light during the development and implementation of the programme.

4.1. Technical issues

- availability of internet with the correct browser to the small or medium-sized business operator
- linking of files
- language barriers

4.2. Organisational issues

- composition of the membership of the project group
- obtaining full support

4.3. Other issues

- the need for early escalation to ensure the continuity of the process
- addressing functionality
- human behaviour factor.

5. Success factors

The introduction of the programme appears to have been a great success. An important factor which explains this success is the fact that Interpolis has been the first provider of electronic training. Nobody else has dared to take the step of solving the issue of the prevention officer in small and medium-sized businesses with an e-learning application.

The developer has closely examined the exact requirements which are imposed by the government on the prevention officer. The requirements (a) demonstrable knowledge, (b) a clear risk analysis and (c) an action plan can be tested and validated very effectively in writing.

This insight, and a thorough knowledge of the possibilities and limitations of electronic learning environments, explain the success of the programme.

The distribution of small and medium-sized business operators around the country, and the logistical challenges, lead almost as a matter of course to the use of the internet. The sore point of 'time', and the need of the small or medium-sized business operator to be able to invest any hour of the day in study made the decision more simple.

A very important factor which explains the success of the programme is the financial advantage which the programme brings with it. Regular training would take two days and bring time costs with it.

In addition, the external validation of the programme is a decisive factor. Alongside the testing methodology, the validation itself is also validated by Det Norske Veritas. The

logo shown below, and the associated disclaimer, are printed on the certificates, which are generated electronically using HTML.

Disclaimer

This E-learning 'Prevention Officer' course and examinations have been evaluated by DNV for their relevance to the final terms and testing matrix specified by the Prevention Officer Certification Commission, and meet the requirements set by DNV regarding design, implementation and completion. The certificate is issued to the prevention officer on the basis of the personal details provided by the certificate holder.



6. E-learning investments, developmental costs and operational costs

This paragraph contains information on cost and (expected) benefit elements.

Total investment (including hosting): € 120,000

The total investment includes:

- Advice during the quotation phase;
- Project leadership during construction;
- Training expertise in the development of the application;
- Graphic design of the visuals;
- Technical construction of the application;
- Operation of the application.

Saving in costs: 10% - € 1,600,000

If business operators draw up and implement their own RI&E and PVA, it is expected that the total costs of the 'WerkAttent' absenteeism insurance product (the training forms a component of the 'WerkAttent' proposal) will fall by 10%. This represents an amount of € 1,600,000.

Generation of leads for the Safety, Health and Welfare Service: € 150,000

The supplied RI&Es and Action Plans can be a lead-in to advising business operators in the field of safety, health and welfare. The expectation is that this will yield a minimum of € 150,000 in consultancy fees for the 'Commit' Safety, Health and Welfare Service.

Saving for the business operator: € 1,500 (target group: 4000 business operators) - total saving - € 6,000,000

Regular training lasting two days costs around 18 hours at an hourly tariff of € 100.

This equals € 1,800. By following the training in two to three hours, the time costs to the business operator are around 200 to 300 hours. Per account, this provides the business operator with a saving of around € 1,500.

Return On Investment for client (insurance company) – 1,233%

{[Yield (1,600,000) – costs (120,000)] / costs (120,000)} x 100% = 1,233%