Evaluation of the HELA Training Co-ordination portal's ability to support communication and knowledge sharing between LA and HSE safety enforcement teams

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Evaluation of the HELA Training Co-ordination portal's ability to support communication and knowledge sharing between LA and HSE safety enforcement teams

Norma J Ford BSc (Hons) MIOSH
MCIEH Chartered Environmental Health Practitioner
Josie M Brown BSc (Hons)
Heather J Williams PhD BA (Hons) Cert Ed MIITT
Built and Human Environment Research Institute
University of Salford
Salford
Greater Manchester
M5 4WT

An evaluation of the HELA Training coordination portal’s ability to support communications relating to training and Priority Programme (PP) topics, and to explore its potential to assist in supporting PP training needs and enabling knowledge sharing. The findings indicate the portal had become an established route by which communications between Local Authorities (LAs), and HSE and LAs were conducted but more so in relation to PP topics than training. Supported cascade training proved successful both in terms of achieving the defined training objectives and in its reach. LAs would appreciate a continuing role for the portal in supporting training but there is a need for further resources to be devoted to developing this aspect if user expectations are to be met. Awareness of the portal had increased significantly since its inception and its role in supporting knowledge sharing is recognised and valued. There has been an increase in LA content but this has been sourced from a minority of LAs. Reluctance to share information may be linked to an absence of incentives or motivators within individual workplaces. Heads of Service may need to be engaged to seek their support in encouraging the use of the knowledge management characteristics of the portal within individual LAs.

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EXECUTIVE SUMMARY

BACKGROUND

The HELA Training Coordination portal was launched in October 2001. Initially it was developed as a means to facilitate the national coordination of training for Local Authority (LA) based health and safety enforcement officers. Subsequently a second phase, commencing in February 2002 and concluding in August 2003, sought to extend and augment the outcomes of phase 1 by expanding the functions of the web portal and developing its content to include a dedicated area for Priority Programme (PP) communications. A third and final phase (commencing in September 2003 and finishing in February 2005) was designed to build on and develop the use of the portal to assist LAs in their contribution towards achievement of the revitalising targets.

The aims of the phase 3 project were to:

1. Consolidate the operation of the portal in order to enable the improved communication facility between LAs, and between LAs and HSE, to ‘bed’ down and its advantages be realised in relation to both training coordination and the PP areas.

2. Investigate the potential offered by the portal to assist in addressing training needs arising from the priority programme initiative.

3. Explore the potential of the web portal to be further developed to support knowledge management for LA based health and safety enforcement teams.

Two evaluations were undertaken. The first, a process evaluation, aimed to assess the effectiveness of user interface improvements to the portal and the impact of the enhancements specifically designed to encourage further collaboration. The second, an output evaluation, assessed the effectiveness of the portal in terms of facilitating training in the PP areas for LA based health and safety enforcement officers and support for knowledge management and knowledge sharing by LA based health and safety enforcement officers.

PROCESS EVALUATION

There were three components to the process evaluation: an analysis of the monitoring and traffic data from the portal, a user questionnaire survey and a user focus group.

The traffic data revealed that portal usage had remained relatively stable during the first ten months of the phase 3 project, but in the last two months of the monitoring period there was a notable increase in usage. It appeared that in the short term the user interface improvements had not significantly impacted portal traffic. The review of the usage of the discussion board, liaison group database and the practice and procedures sections demonstrated that of the three improvements only the practice and procedures section was attracting significant numbers of users. The user survey and focus groups indicated that the discussion board was not seen as useful because there were insufficient messages posted on it and similar web based facilities, in particular the EHC net service, were available. The respondents indicated that if there was greater awareness both of the discussion board and the messages placed on it, for example though the use of email alerts, then usage might improve. In particular the HELA Training
Co-ord discussion board was considered to have superior functionality to EHC net and was solely dedicated to health and safety enforcement issues.

The liaison group database was rated as being ‘not very useful’ because the information it contained did not help enforcement officers to do their jobs and it was limited to the contact details for each group. Respondents suggested that its utility could be enhanced if additional information eg current work plans were also included and that potentially this could facilitate more joint working between the groups.

In contrast the usefulness of the practice and procedures section (which was dedicated to the capture of LA developed information) was rated more highly and the traffic data confirmed these opinions. The survey and focus group did not reveal objections to sharing information but this should be tempered with the reluctance of officers to post information on the portal. The majority of the respondents indicated they were likely to use information produced by other authorities, however, only one of the respondents had tried to upload information to the portal. The focus group discussion suggested that a major impediment to sharing information was officers’ lack of confidence in their work, though a smaller number did suggest they might be reluctant to share information because there may not be reciprocity from other LAs.

The process evaluation concluded that there was still a lack of knowledge about the portal and its functionality, particularly recent enhancements.

**OUTPUT EVALUATION – TRAINING SUPPORT**

The output evaluation included an assessment of the effectiveness of a supported cascade training initiative. A manual handling assessment chart tool (MAC) had been developed to assist health and safety enforcement officers to identify and assess manual handling activities within the workplace. Discussions with the development team suggested that there was potential to develop a web-based training toolkit to support the use of the MAC by LAs and the HSE. Its uptake and effectiveness was assessed in five ways: an evaluation of the facilitator training, evaluation of the supported cascade training by attendees and facilitators, telephone interviews with trained facilitators who had not cascaded training and a review of the usage of the training material on the portal.

Several conclusions were drawn from the in depth evaluation of the role of the portal in supporting training needs associated with the introduction of the MAC.

The use of supported cascade training appeared to be very successful in terms of achieving the defined training objectives. In addition the vast majority of the facilitators had cascaded training or intended to do so and at the time of the evaluation (February 2005) an extra 300 officers had received the training. The feedback from them was generally very positive.

The cascade training initiative was supported by facilitator training and a comprehensive toolkit which had been developed to reflect LA enforcement activities. The toolkit was made available via the portal and consisted of PowerPoint presentations and video exercises. The practical video exercises and the participative nature of the session were seen as its key strengths. Facilitators reported no difficulties in preparing or delivering the sessions. They expressed a high level of satisfaction with the toolkit; its availability on the portal was seen as an asset because it ensured its accessibility, saved time and promoted a consistent approach to the subject.
The facilitators appreciated the advantages of cascade training in terms of efficient use of resources, consistent approach and local availability. They did, however, highlight that the time input needed from facilitators is often not allowed for within normal work routines. This could be a serious impediment to cascade training being adopted more widely since the burden is falling personally on a small number of individuals. In addition the need for support for facilitators (e.g., a Help line), so that queries that were raised in training sessions could be followed up with experts, was identified.

Overall the initiative was successful. It identified a willingness on the part of LA based health and safety enforcement officers to adopt cascade training more widely if it is supported to the same degree as in this initiative. It should, however, be appreciated that some training objectives may not lend themselves to the training techniques adopted in this exercise.

OUTPUT EVALUATION – COMMUNICATIONS SUPPORT

The evaluation of the potential of the portal to facilitate communications between LAs, and between LAs and the HSE and to support knowledge management and knowledge sharing by LAs was achieved by analysis of the monitoring and tracking data from the portal and a telephone survey of users and non-users.

The results of the output evaluation suggested the portal had become an established route by which communications between LAs, and between LAs and the HSE were conducted. However, survey respondents were less positive about the portal’s role in achieving improved communications between LAs and HSE, than between LAs. The feedback indicated that the portal has established itself more firmly as a communication route for PP topics than as a vehicle for communications about training. Nevertheless, its support of training needs arising from the Priority Programme initiative was recognised by the majority of respondents. The portal’s value in supporting training was identified when respondents were questioned about their perceptions of the purpose of the portal. The training support aspect was also highlighted as one of its useful functions. Moreover, there was clear evidence to demonstrate that the portal can be effective in supporting cascade training initiatives. However, in the final evaluation some respondents commented on the need to increase the training resources content and to update some of the existing content. Clearly whilst LAs would appreciate a continuing role for the portal in training there is a need for further resources to be devoted to this aspect if user expectations are to be met.

Users’ perceptions that the portal is less effective in supporting communications between LAs and the HSE may have arisen as a consequence of the branding of the portal and the way in which the source of resources are identified. In many cases, the HSE’s ownership of the information it has posted might not be obvious; whereas a policy of clearly labelling LA sourced information has been adopted. Local Authorities are well aware that the portal has been developed and managed by a research team at the University of Salford and it is therefore possible that they perceive the HSE’s involvement as being more distant than has been the case. In addition, the sourcing of HSE information has been ad hoc and through personal contacts and networks with HSE personnel, thus it is likely that HSE resources suitable for posting on the portal might have been overlooked because the site administrators (the research team) are separate from the HSE. There is a need, therefore, to ensure that a more systematic approach to identifying HSE resources is adopted. The sourcing of resources from LAs is more systematic through the use of regular mail shots to all liaison groups and registered users.
OUTPUT EVALUATION – KNOWLEDGE MANAGEMENT SUPPORT

The literature review identified certain critical components to the success of a knowledge portal namely access, awareness, usability and culture. The findings suggested that access to the portal is satisfactory and no hardware constraints or barriers were identified. Some limitations on downloading were encountered and further investigations may need to be undertaken to assess whether this is a serious impediment to the portal’s usage. The existing username and password facility was found to be satisfactory but it was suggested that it could be simplified and improved by issuing one password per authority which would reduce the need for updating current user lists. This would also lessen the likelihood that usernames and passwords are lost or forgotten by individuals. Many users were unaware of the authorship facility, which allows users to post information to the portal, and the need for another password was believed to potentially dissuade users from using it. It may therefore be necessary to allow users to access all portal facilities using a single password.

Awareness of the existence of the portal had significantly increased following the process evaluation and no longer appeared to be a constraint. This is an important development because lack of awareness has, since the portal’s inception, been perceived by the health and safety enforcement community to be one of the most significant barriers to its widespread adoption. A lack of awareness of certain features and their functionality does still exist, particularly the discussion board, calendar, liaison group database and the facility to post information. Awareness may be increased by publishing articles in Environmental Health News (EHN) and other journals, increasing the links from other relevant portals, sending out regular email updates and continuing with articles in the LAU newsletter. Emphasis should be placed on raising awareness of each of these facilities since they provide functions and information that may not be as readily available in other forms. For example, the discussion board is archived and potentially can gather knowledge that previously had only been available in tacit form. These features are the ones that also rely most heavily upon LA and HSE ongoing and continued input.

The phase 3 evaluation findings suggested that the portal continued to be used primarily to draw down information but rarely to post it. The phase 2 evaluation also reached the same conclusions (Ford and Green, 2004). Nevertheless, most users were aware that the portal enabled the sharing of knowledge and believed it to be a useful feature. Unfortunately it appears that few users are sufficiently motivated to post information or even to offer it for posting.

The majority of the portal users were satisfied with the portal aesthetics and structure ie the front end look and feel was acceptable. Users experienced few problems in finding specific information but it was felt that the search engine was not as effective as it could be. Some users reported finding the taxonomies confusing, as they did not clearly describe the type of content available within each area. Conversely others identified one of the advantages of the portal to be its ease of navigation, which enabled them to access and download information speedily. The taxonomies may need to be reviewed and more accurate descriptions provided in some areas.

The content itself was largely regarded as trusted and accurate and the variety and range of content was praised. However, a recurring theme within the evaluation was the need to increase the critical mass of the content. In particular, respondents identified the need for more shared experiences, LA produced guidance and HSE input. It was also suggested that the training content should be updated and extended.
The most popular and valued features of the portal were the areas from which guidance documents etc could be downloaded, namely the priority programme and practice and procedures areas. The discussion board, calendar and liaison groups’ database were regarded as least useful and there is a need to determine whether they should be retained. To be successful both the discussion board and calendar require ongoing, regular and sustained input from LAs and HSE. A web-based forum through which the health and safety enforcement community can discuss issues was established before the introduction of the portal and is cited as one of the reasons why the discussion board is poorly used. It serves the wider environmental health community, is not linked with HSE and its functionality is less sophisticated, for example, discussions are not archived in the same way. Therefore the portal’s discussion board does offer advantages but whether these are sufficient to enable it to become the main forum for virtual health and safety enforcement discussion is debateable. The calendar itself is unique since there is no other web based calendar facility for this community but its lack of success results from the reluctance of event organisers etc to offer information with which to populate it. Efforts to encourage organisers to alert the site administrators to forthcoming events are necessary if the calendar is to be retained.

Responses to questions seeking the attitudes of users towards knowledge sharing were positive and the vast majority of respondents reported a willingness to share information through the portal, suggesting few attitudinal barriers pervaded. Respondents believed their own LAs provided opportunities for the sharing of knowledge between officers although there was some evidence that particular individuals and LAs were suspected of being reluctant to share knowledge. In many cases the positive attitude expressed in the survey to knowledge sharing has yet to manifest itself in action since only limited numbers of LAs and liaison groups have volunteered information for the portal. The process evaluation suggested that one barrier to knowledge sharing may be attributed to officers’ lack of confidence in their own expertise and concern that colleagues might be overly critical of information they had posted to the portal. To overcome this problem users may be persuaded to submit information anonymously or preferably via liaison groups. Others identified a lack of time as a barrier to offering information to the portal.

A knowledge sharing culture to which senior management are committed must exist if KM is to be successfully undertaken. The development of the portal has been driven and informed by officers working at operational level. During the conduct of the project there has been no direct engagement with the Heads of Environmental Health services to alert them to the development of the KM facet of the portal and its potential advantages. Consequently, whilst officers are positively disposed to the idea of knowledge sharing it is unlikely that any incentives or motivators exist within individual workplaces to encourage users to spend time or effort providing information for the portal. It may be necessary for initiatives to influence the Heads of Service to be undertaken in order to encourage them to view their units as part of a wider health and safety enforcement knowledge community through which the sharing and dissemination of knowledge can occur. This would reflect and further reinforce the partnership approach to health and safety enforcement that is currently underway.

The evaluation also sought to examine the extent to which the portal is capable of supporting the KM cycle of knowledge capture, development, sharing and utilisation. The portal has demonstrated its technological potential for knowledge capture and it has been designed so that no specialist knowledge is needed in order to post information to it. The evaluation indicates that in certain areas, the portal has been successful in capturing knowledge, particularly in the priority programmes and practice and procedures areas, which were rated very highly by its users. Clearly the critical mass of content needs to be augmented and
therefore the amount of information being volunteered both from LAs and HSE needs to be improved. Indeed the communication and information flow between the HSE and LAs was not rated as highly as that between LAs, which suggests that users would want the HSE to increase its input into the portal. Data capture for the more interactive and real time elements of the portal, namely the calendar and discussion board, has presented challenges and ways of improving this must be sought if they are to be retained as a valued component of the portal.

The structure of the portal has been designed to organise information in a way that is understandable to health and safety enforcement officers, reflects their changing priorities and enables them to quickly identify and draw information which they can use in their work (i.e. knowledge development). Taxonomies have been developed which some users found helpful but others did not. Further work to ensure the organisation of the information is user friendly may need to be undertaken, perhaps via a user group.

The user data indicated that a large proportion of LAs are now using the site suggesting that the information captured there is being more widely disseminated. In addition the final evaluation established a willingness to share information through the portal and more than half of the respondents commented on it being a good resource and/or a tool for information and knowledge sharing. The challenge in terms of knowledge sharing lies, as already discussed, in ensuring that sufficient knowledge is captured so that users deem it worthwhile visiting the portal. Efforts to capitalise on the positive attitudes to knowledge sharing so that they are translated into practice should be a priority.

The value of KM and the potential opportunities and advantages accruing from LAs and the HSE systematically sharing knowledge and ‘know how’ may need to be publicised and promoted with Heads of Environmental Health Services. Awareness of the ethos of the portal and its benefits may encourage LAs to integrate the KM facility of the portal more fully within their routine working processes. LA managers may need to consider ways in which officers can be motivated to share information that they have developed within their LAs.

The final aspect of the knowledge cycle is knowledge utilisation. The increased usage of the portal suggests that users are able and willing to utilise the information they find there. Responses indicated that most users thought the information was reliable and were willing to use information from other LAs. Additional research may need to be undertaken to determine the extent to which information downloaded from the portal is utilised to improve and inform practice and to develop new knowledge.

Clearly the portal can support the knowledge cycle but organisational and cultural aspects of the process particularly the future role, input and commitment of the HSE and LAs to its continuation and development will need to be addressed.

RECOMMENDATIONS

The following recommendations are suggested:

- The HSE’s role and contribution to the management and development of the portal and its contents is transparent and clearly publicised.
- Systematic and routine processes for collecting information suitable for posting on the portal from the HSE are introduced.
• The use of mail shots to LAs and Liaison Groups to encourage volunteering of material for posting on the portal is continued on a routine basis.

• The use of incentives to encourage LAs to volunteer information for the portal is considered e.g. the introduction of an annual award for the LA/individual making the most positive contribution to the portal.

• The underlying ethos and value of the portal in promoting knowledge sharing between LAs is publicised to LA Heads of Environmental Health Services in order to gain their support in encouraging LA based staff to make continuing contributions to it.

• Efforts to increase awareness of the value of the discussion board, calendar and liaison group are undertaken in order to increase the information contained there.

• A user group is established to consider the simplification of the password system, the ways in which the use of the posting facility can be encouraged and the suitability and appropriateness of the existing taxonomies.

• The extent of the limitations on downloading in LAs is explored to assess the likelihood of this being an impediment to the continuing use of the portal.

• The value placed on the portal’s ability to support training for LA based health and safety enforcement officers is recognised and further training material for the portal is developed.

• The development of further supported cascade training initiatives utilising the model developed and evaluated in this research.
1. INTRODUCTION TO THE HELA TRAINING COORDINATION PORTAL

1.1 INTRODUCTION AND BACKGROUND

The HELA Training Coordination portal was launched in October 2001. Initially it was developed as a means to facilitate the national coordination of training for Local Authority (LA) based health and safety enforcement officers. Subsequently a second phase, commencing in February 2002 and concluding in August 2003, sought to extend and augment the outcomes of phase 1 by expanding the functions of the web portal and developing its content to include a dedicated area for Priority Programme (PP) communications.

An evaluation of the extended portal was conducted to establish its effectiveness in terms of providing information to all LAs, ensuring consistency of enforcement, providing feedback to LAs from the Health and Safety Executive (HSE) and sharing best practice with regard to training materials and professional development activities. The evaluation concluded that:

- The HELA Training Co-ord portal was a highly effective medium for providing information about PPs and training to LAs.

- There were a number of factors that impacted upon the achievement of consistency of which the availability of enforcement information and protocols was only one. Factors that might have affected the portal’s ability to promote consistent enforcement included lack of uptake of posted information, resistance to changes in working practices and the influence of local factors.

- Although the portal had the potential to facilitate the provision of feedback, its effectiveness as a two way information channel between HSE and LAs was, at the time of the phase 2 evaluation, untested due to the lack of feedback that had been received.

- There were indications that the portal could be greatly effective as a means of facilitating the sharing of best practice by LAs but at the time of the phase 2 evaluation the proportion of information that had been contributed by LAs was limited. However, enforcement officers recognized that if LAs became more involved in posting information the content of the portal could be greatly enhanced.

Three major perceived strengths associated with the portal were identified: the quality and relevance of its content, its functionality and flexibility, and the potential for future development and expansion. Other perceived strengths included ease of access and use, the advantages stemming from the sharing of best practice information, and the facilitation of access to HSE training materials and information (Ford and Green, 2004).

It was established that the portal had made an effective contribution to informing LAs about the PPs initiative and in particular had enabled LAs taking part in the New Ways of Working Pilot project to post inspection data so that it was readily available to the Local Authority Unit (LAU) and the PP Project Officers. In addition the evaluation established that the users perceived potential for the portal to be used more extensively, and to enable them to capture and share knowledge and ‘know how’ more effectively than was the case at the time of the Phase 2 evaluation. A further project was therefore proposed (Phase 3) to build on and develop the use of the portal to assist LAs in their contribution towards achievement of the revitalising targets.
The aims of the phase 3 project were to:

1. Consolidate the operation of the portal in order to enable the improved communication facility between LAs, and between LAs and HSE, to ‘bed’ down and its advantages be realised in relation to both training coordination and the PP areas.

2. Investigate the potential offered by the portal to assist in addressing training needs arising from the priority programme initiative.

3. Explore the potential of the web portal to be further developed to support knowledge management for LA based health and safety enforcement teams.

1.2 PROJECT OVERVIEW

The project commenced in September 2003 and concluded in February 2005; it consisted of four components:

Component 1: Managing and consolidating the operation of the HELA Training Coordination Portal.

This aspect of the project involved the ongoing maintenance and development of the content and functionality of the portal, specifically this included:

Ensuring that the portal delivered the aims of the project in a reliable manner.

- Continuing to manage and develop the content of the portal in order to assist LAs to contribute to the revitalising targets through the priority programme initiative.

- Working with the HSE staff representing the Priority Programmes to populate the new areas with relevant and timely information.

- Extending the content of the portal to include information relating to enforcement practice and procedures and other topic areas that were deemed appropriate by the LAU.

- Promoting the portal and providing support and training to LAs and HSE personnel.

- Managing and administering the portal, on a day-to-day basis, including responding to user requests, managing discussion boards, approving new content, liaising with web developers etc.

- Working with the LAU to extend the New Ways of Working pilot system for data collection and analysis and to evaluate its uptake by LAs.
Component 2: Investigating the use of the portal in addressing training needs arising from the PP initiative.

This involved:

- Exploring, in conjunction with the HSE, the potential for developing training toolkits in PP topic areas and an evaluation of the effectiveness of any resulting toolkits.

Component 3: To explore the potential of the web portal to be further developed as a knowledge management system

This component of the project encompassed:

- Exploring the success of direct approaches by the research team to LAs to encourage them to post content to the portal.
- Undertaking improvements to the user interface of the portal (including a new portal design and enhanced facilities for posting information) in relation to promoting information exchange between HSE and LAs on PP issues and assessing their impact.
- Investigating the effectiveness of enhancements to the portal specifically designed to encourage further collaboration.

Component 4: Project Evaluation

Two evaluations of the phase 3 project were undertaken;

A process evaluation which aimed to assess:

- the effectiveness of user interface improvements to the portal.
- the impact of the enhancements specifically designed to encourage further collaboration

An output evaluation that assessed the effectiveness of the portal in terms of:

- facilitating training in the PP areas for LA based health and safety enforcement officers, and
- supporting knowledge management and knowledge sharing by LA based health and safety enforcement officers.

1.3 REPORT STRUCTURE

Chapter 2 of this report contains details of the process evaluation. Chapter 3 is an evaluation of the effectiveness of the portal in supporting a priority programme training initiative and Chapter 4 reports the evaluation of the portal as a knowledge management tool. The final chapter provides the conclusions of the research.
2. PROCESS EVALUATION

A process evaluation was undertaken nine months after the commencement of the Phase 3 project. It sought to assess:

- The effectiveness of user interface improvements to the portal.
- The impact of the enhancements specifically designed to encourage further collaboration by LA based health and safety enforcement officers.

2.1 METHODS

There were three components to the process evaluation:

- analysis of the monitoring and tracking data from the portal.
- a user survey
- a user focus group.

2.1.1 Monitoring and tracking mechanisms

Statistical information obtained via the monitoring and tracking mechanisms on the portal was analysed to identify trends and patterns of usage.

2.1.2 User Survey

A self-complete questionnaire was designed for use by individuals who were eligible to be portal users i.e. all health and safety enforcement officers employed in LAs in England, Scotland and Wales. The questionnaire was piloted with a group of LA based health and safety officers, who were asked to fill in the questionnaire and then comment on its clarity and ease of completion and to suggest any recommendations for improvement of the questionnaire. No improvements were noted and the questionnaire was retained in its original form (see Appendix 1).

During July and August 2004, a survey of LA based health and safety enforcement staff was undertaken to explore responses to the recent developments to the portal and gather information about its strengths and weaknesses. The survey respondents were LA based enforcement staff who attended a series of regional training events. The questionnaire sought to collect details of:

- frequency and type of use of the portal by LA and HSE personnel
- use and opinion of the practice and procedures section (for LA developed resources) of the portal
- use and opinion of the interactive database of liaison group details
- use and opinion of the discussion board facility
- use and opinion of the improved facility to post information
• usability of the portal e.g. ease of access and navigation
• barriers to use eg restrictions on Internet access, technical difficulties encountered etc.

2.1.3 Focus group
In addition to completing the questionnaire the respondents were invited to contribute to a discussion about the portal and recent enhancements made to it. To avoid biasing the questionnaire responses the respondents completed the questionnaire in advance of taking part in the discussion. The following issues were raised with the focus group:

• How can LAs be encouraged to post information on the portal?
• What incentives might be used?
• Are LAs likely to use information posted by other LAs?
• Is there a role for a dedicated health and safety enforcement discussion board?
• How can officers be encouraged to use the discussion boards?
• What issues would be interesting for debate on the discussion board?
• Is a database of contact details of liaison groups of any use to LAs and if so in what way?
• How can liaison groups be encouraged to keep their contact details up to date?
• How can awareness of the portal’s existence be increased?
• How can sharing of information and knowledge be encouraged?

The discussions lasted for approximately one hour and all were recorded on audio tape for later analysis.

The questionnaire results were analysed using SPSS and the focus group discussions were analysed qualitatively.

2.2 MONITORING AND TRACKING FINDINGS

A main component of the process evaluation was an analysis of the web portal monitoring and tracking data for the period July 2003 to July 2004. The following trends and patterns of usage were identified.

2.2.1 Registered users
At the time of the evaluation, three years after the launch of the original HELA Training Coordination portal, over 3000 health and safety enforcement officers from 410 local authorities had been issued with usernames and passwords for the portal. Of these, around 1600 users were active, i.e. had logged onto the portal on more than one occasion. Each user
was assigned to a particular user group. This group determined which areas of the portal the user had access to and which facilities were available to them. The distribution of users amongst these groups is shown in the Table 1 below.

### Table 1 Categorisation of users

<table>
<thead>
<tr>
<th>User group name</th>
<th>Permission levels</th>
<th>Number of users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators</td>
<td>Access and edit all areas, post information to all areas, analyse traffic stats, interrogate inspection data for all authorities.</td>
<td>30</td>
</tr>
<tr>
<td>Authors</td>
<td>Access all areas, edit selected areas, post information to selected areas, post inspection form data and view own statistics. Post to Discussion Board, Calendar and Liaison Group database</td>
<td>457</td>
</tr>
<tr>
<td>Normal users</td>
<td>Access all areas, post inspection report form and view own stats. Post to discussion board.</td>
<td>3263</td>
</tr>
<tr>
<td>Fire authorities</td>
<td>View EMM</td>
<td>34</td>
</tr>
<tr>
<td>Synergy</td>
<td>View Synergy section</td>
<td>16</td>
</tr>
<tr>
<td>Training providers</td>
<td>View and edit 'Find a course/ resource', 'Course review' and 'Find a venue.</td>
<td>3</td>
</tr>
</tbody>
</table>

#### 2.2.2 Unique sessions

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of unique sessions per month (see Figure 1 below). Unique sessions are periods of time recorded when an individual user logs on to the portal to the time they log off. The number of unique sessions rose from 726 in July 2003 to 987 in November 2003 before falling to 614 in December 2003. Sessions then averaged at around 680 between December 2003 and May 2004, before reaching a peak of 1193 in July. The lowest number of unique sessions was recorded in August 2003 at 553 sessions. The mean number of unique sessions a month during this period was 780.

![Figure 1: Number of unique sessions per month](image)
2.2.3 Unique users

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of unique users (individual users) of the portal each month (see Figure 2 below). The number of unique users ranged from 225 in August 2003 to 388 in July 2004. The mean number of unique users during this period was 281.

![Figure 2 Number of unique users per month](image)

2.2.4 Unique authorities

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of unique local authorities (individual local authorities) using the portal each month (see Figure 3 below). The number of unique local authorities using the portal rose from 96 in July 2003 to 171 in November 2003. Numbers then dropped to 143 in December 2003 but rose again in February 2004 to 174 before falling back to 145 in May 2004. A peak of 212 was reached in July 2004. The mean number of unique local authorities using the portal each month during this period was 152.
The aim of the process evaluation was to assess the impact of recent portal enhancements, namely improvements to the discussion board, the addition of the liaison group database and the practice and procedures area and improved facilities for posting information to the portal. The data relating to these areas/functions was analysed as follows:

2.2.5 Discussion board visits

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of visits to the discussion board each month (see Figure 4 below). Due to changes in the traffic monitoring figures no data relating to discussion board usage was available for July 2004. The number of visits to the discussion board ranged from 24 to 68. The greatest number of visits was recorded in September 2003 and the lowest number in May 2004. The mean number of visits during this time was 50.
2.2.6 Users visiting the discussion board

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of unique users visiting the discussion board each month (see Figure 5 below). The number of unique users visiting the discussion board varied between 18 in May 2004 and 55 in November 2003. The mean number of unique users was 39.

2.2.7 Unique authorities visiting the discussion board

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of unique authorities visiting the discussion board each month (see Figure 6 below). Twenty-nine authorities visited the discussion board in July 2003 and numbers increased to a peak (44) in November 2003. Numbers then fell to a low of 17 in May 2003 before increasing to 38 in June 2004. The mean number of authorities during this time was 30.
2.2.8 Discussion board posts

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of discussion board posts each month (see Figure 7 below). The number of actual postings on the discussion board was consistently low but did reach a peak of 17 in September 2003. Numbers then fluctuated between 0 and 3 from October until June before rising to 8 in July.

2.2.9 Visits to the liaison group database

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of visits to the liaison group database each month (see Figure 8 below). Visits to the liaison group database ranged from 125 in November 2003 to 61 in April 2004. The average number of visits per month was 85.
2.2.10 Unique users of the liaison group database

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of unique users visiting the liaison group database each month (see Figure 9 below). The number of unique users visiting the liaison group database rose from 52 in July 2003 to a peak of 101 in November 2003. User numbers then fell back to 52 in April 2004 before rising to 95 in July 2004. The mean number of user visits during this time was 69.
2.2.11 Unique authorities using the liaison group database

Data relating to portal usage for the thirteen-month period from July 2003 to July 2004 inclusive was examined to identify the number of unique authorities visiting the liaison group database each month (see Figure 10 below). The number of unique authorities rose from 38 in July 2003 to 72 in November 2003 before falling to a low of 37 in April 2004. Numbers then rose to a peak of 76 in July 2004.

![Bar Chart: Number of unique authority visits to the liaison group database](image)

**Figure 10** Number of unique authority visits to the liaison group database

2.2.12 Visits to the practice and procedures section

This area was added to the portal in February 2004 to provide a dedicated area in which to post examples of resources developed by LAs, including specimen notices, standards phrases, and inspection checklists/aide memoirs covering a range of work activities. The materials can be viewed, downloaded and adapted for use by other local authorities.

Between the launch and July 2004, eighteen different local authorities submitted materials they had developed to be uploaded to the practice and procedures section. Data relating to portal usage for the six-month period from February to July 2004 inclusive was examined to identify the number of visits to the practice and procedures section each month (see Figure 11 below). The number of visits increased from 18 in February to 417 in July. A marked increase was noted between May and June, an increase of 179 visits.
2.2.13 Unique users of the practice and procedures section

Data relating to portal usage for the six-month period from February to July 2004 inclusive was examined to identify the number of unique users of the practice and procedures section each month (see Figure 12 below). The number of unique users of the practice and procedures section ranged from 12 in February to 233 in July, again with a marked increase of 99 between May and June.
2.2.14 Unique authorities visiting the practice and procedures section
Data relating to portal usage for the six-month period from February to July 2004 inclusive was examined to identify the number of unique authority users of the practice and procedures section each month (see Figure 13 below). In February just 6 authorities had visited this section, but by July this had risen to 159.

![Figure 13 Number of unique authorities using the practice and procedures section](image)

2.2.15 User posts
At the time of the process evaluation no LAs had posted any information using their authorship username. The LA material available on the portal had been uploaded by the portal administrator. Four HSE users had uploaded various articles on a regular basis.
2.3 USER SURVEY AND FOCUS GROUPS

The findings of the user survey and focus groups are reported together since they were gathered from the same groups of respondents.

2.3.1 Description of sample

Table 2 shows the location of the events where the focus groups were conducted and the questionnaires were distributed, together with the number of delegates. The survey population was considered to be a representative sample since they were LA based health and safety enforcement officers who had not been involved with the development of the portal and they were drawn from all regions, that is, England, Scotland and Wales.

<table>
<thead>
<tr>
<th>Event location</th>
<th>Number of delegates</th>
<th>Number of liaison groups represented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salford (Pilot)</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>London</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>Glasgow</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Salford</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>Bristol</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>39</td>
</tr>
</tbody>
</table>

A total of 81 enforcement officers, drawn from 39 of the 49 liaison groups, took part in the user survey. All liaison groups were invited to send representation to the training sessions but some declined to do so.

The sample consisted of Environmental Health Officers (EHOs) (23%), Senior Environmental Health Officers (SEHOs) (34%), Principal Environmental Health Officers (PEHOs) /Team Managers (23%), Technical officers (10%) students (5%) and others (5%) (see Figure 14 below). Others included EHOs whose main responsibility was the enforcement of food hygiene legislation but who also carried out some health and safety enforcement.

![Figure 14 Job titles of respondents (n=81)](image)
2.3.2 Frequency and type of use

Of the 81 respondents 59 (73%) had accessed the portal. Of these, 38 (64%) accessed the portal less than once a month and 10 (17%) did so on a monthly basis. Six (10%) stated that they accessed the portal fortnightly, 4 (7%) weekly and 1 (2%) logged on daily.

Respondents were asked to give reasons why they did not access the portal more regularly (see Figure 15 below). Fifty-six reasons were given. The predominant reason given by 20 (36%) respondents was lack of time, primarily due to pressures of workload. Eight (14%) stated that other sources of information were used, including HSE and LACORS web sites and 6 (11%) reported that they had forgotten about the portal. Four (7%) indicated that they only logged on to the portal when they were looking for specific information. Reasons for not accessing the portal more regularly given in the 'other' category included the lack of prompts about new information, the information did not change, the user had changed employing authorities and that they did not log on because it was not compulsory.

![Figure 15 Reasons for not accessing the portal more frequently (n=56)](image)

The 22 respondents who had not accessed the portal were asked to give reasons why. Thirty-six reasons were given. The majority, 12 (32%), stated that they did not have enough information about the portal and 10 (28%) that they had no prior knowledge of it. Nine (25%) reported that they had no username and password and 2 (6%) had no time to access the portal. Two (6%) had no Internet access at all and one respondent had no Internet access at work.
2.3.3 Ease of access

The majority (62; 77%) of respondents had access to the Internet both at home and at work. Eighteen (22%) only had access at work and just one respondent only had access at home.

Of the 59 respondents that had accessed the portal, 47 (80%) had experienced no difficulties in doing so. The 12 (20%) respondents who had experienced difficulties were asked to give details of these difficulties. Five (40%) reported that they had difficulty in remembering their username and password and 4 (30%) stated that their passwords were not recognised. Other problems included confusion over passwords and usernames, internal IT problems and that requests for new usernames had not been actioned.

During the focus group discussions a small proportion of the groups raised the issue of problems with logins. Losing or forgetting passwords was seen as a major barrier to accessing the portal. Those authorities with a high turnover of staff saw the task of constantly informing the portal administrators of changes in personnel as a chore. It was requested that each authority be allocated one username and password as opposed to one for each officer. This would avoid confusion over passwords, dispose of the need to update the list of current users and also reduce the chance that passwords would be forgotten.

Many misunderstood the email facility available to users who had forgotten their passwords. Most users had not realised that it was necessary to initially input their email address in order to be sent forgotten passwords. A suggestion to send new users a confirmation email was made; officers who had recently registered would be sent a 'welcome' email to confirm receipt of their email address, possibly with a brief introduction to the portal and a user guide.

In relation to the structure of the portal and ease of navigation, most users (48; 84%) found it user friendly; 9 (16%) stated that it was not. The focus groups indicated that the portal search facility was not particularly effective and was therefore in need of further development. Frustration caused by inefficient search facilities was given as a main cause for not returning to web portals.

![Figure 16 Reasons for not accessing the portal (n=36)]
2.3.4 Raising awareness

At the time of the evaluation the portal was publicised via regular updates in the HELA newsletter; through the portal’s own newsletter, which was sent out to each local authority, and via links from the HSE web portal. The focus groups were asked how they thought awareness of the portal amongst health and safety enforcement officers could be improved. The majority of attendees stated that many enforcement officers were unaware of the existence of the portal. Of those that were aware, few had knowledge of the enhanced facilities for posting, the liaison group database and the discussion boards. This was felt to be primarily due to a lack of publicity. Articles in the HELA newsletter had not been seen, as many officers do not read the entire issue due to its size. Few officers reported having seen the portal newsletter and it was suggested that this was because it was addressed to Heads of Service, who failed to disseminate the information to the relevant officers. More effective forms of publicity were suggested; namely articles/adverts in EHN news, links to the portal via as many relevant web portals as possible, highlighting links that already exist and using email alerts and mail shots to inform users of recent portal additions and developments. It was recommended that liaison groups be used as a means of communication between the portal administrator and officers. The portal newsletter could be distributed via liaison group chairpersons or secretaries.

Some food officers were in attendance and they explained that the portal was also relevant to their needs, where they were enforcing health and safety. Such officers would benefit from access to the portal. Publicity should therefore not be aimed solely at health and safety enforcement officers.

It was apparent that there was confusion over the differences between the various health and safety web sites that existed and the HELA Training Co-ord portal. It was suggested that officers should be made aware of the differences and it should be highlighted that the HELA Training Co-ord portal was dedicated to operational health and safety enforcement issues and had added functionality.

2.3.5 Use and usefulness of the discussion board

Just 7 (12%) of the 59 respondents who had accessed the portal reported having used the discussion board. Figure 17 below shows that the majority of these respondents (3; 38%) rated the discussion board as 'not useful'. An average rating for usefulness was calculated based on one being awarded for the 'not very useful' rating and five for 'very useful'. The mean average score for the usefulness of the discussion board was 2.4 indicating that the few who had accessed the discussion board were not convinced of its value.
When asked to give reasons why they felt the discussion board was not useful, four respondents commented. One remarked that the discussion board was not known about in local authorities and that it is also in competition with the well recognised system, EHC net. Similarly, another respondent felt that EHC net was used by any officers wishing to discuss issues and that it had the advantage of sending direct messages to officers as opposed to having to log on to a web portal to view them. One respondent stated that there were no messages on the board to reply to and another that when it was used, it was always by the same people. The final comment was in relation to the lack of time available for officers to log on and use the discussion board.

2.3.6 Encouraging use of the discussion board

When asked what would encourage officers to use the discussion board, forty suggestions were noted.
Eighteen (45%) of the suggestions indicated that raising awareness of the discussion board through publicity would increase its use. Email alerts informing officers of the latest discussion topics were recommended by 8 of the respondents (18% of the suggestions). Five of the suggestions (13%) indicted a need for more time at work to use the discussion board and 3 (8%) suggested further guidance/training on how to use the facility. Other suggestions included making the facility easy to use and quick to access, discussing relevant topics and publishing the outcomes of the discussions.

The focus groups discussed how use of the discussion boards could be encouraged. The majority of attendees stated that it was a case of raising awareness of its existence and functionality. Many officers already used EHC net, which is purely a mail shot system whereby requests, problems or topics of discussion, not solely relating to health and safety, are mailed to all users listed on the database. Some felt that EHC net was a good, widely used facility and that there was little point in developing a similar one. Issues raised via EHC net were specific rather than general and mail shots were direct, not requiring recipients to log on to a web portal. Others described EHC net as unreliable and irritating in some respects, as on occasion the amount of emails was overwhelming and not all were relevant. A few officers indicated that they often erased EHC net emails without opening them. Another criticism was that issues raised on EHC net were not archived, thus officers were not informed of the outcomes and newly acquired knowledge was effectively lost. Furthermore, many problems were reported to be left as unresolved with little further discussion. The groups felt that if awareness of the discussion board’s potential, over that of EHC net, was raised then more officers would be persuaded to use the facility.

The time taken to log on to the portal, access the discussion board and then post an item was seen to be unreasonable by many. It was recommended that access and use be simplified and made less onerous.
Officers indicated that they would be more likely to participate in discussions if a specific topic was discussed rather than general discourse. It was suggested that monthly themes could be trialled. The themes would then have to be publicised, preferably via email alerts.

When respondents to the user survey were asked if they would participate in a debate on the discussion board each month, based around different health and safety enforcement topics, 32 (62%) responded positively. Examples of topics that would be useful to discuss were requested. Thirty-seven suggestions were received. The most requested topics were Revitalising Health and Safety and the Topic Inspection Approach (10; 27%), occupational health issues such as stress, musculoskeletal disorders and display screen equipment (4; 10%) and general enforcement issues (5; 14%). Also mentioned were the Enforcement Management Model (3; 8%), asbestos (3; 8%) and partnership working (3; 8%).

### Table 3 Suggested topics for the Discussion board

<table>
<thead>
<tr>
<th>Suggested discussion topics</th>
<th>Number of suggestions</th>
<th>Percentage of suggestions (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHS topic inspections</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td>General enforcement issues</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Occupational health issues</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Enforcement management model</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Asbestos</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Partnership working</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Puwer and Loler</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Any current issues</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>100</td>
</tr>
</tbody>
</table>

The respondents were then asked if they would be more or less likely to use the discussion board if HSE staff contributed. Fifty-seven responded and 35 (61%) stated that they would be no more or less likely to use the board and 22 (39%) that they would be more likely to use it. No one said they would be less likely to use it.

When the 59 respondents were asked to give alternative ways by which they could discuss enforcement issues the majority of officers (21; 36%) stated that they would use their liaison group. Twenty (34%) indicated that they would use EHC net and 18 (30%) would ask a colleague.

### 2.3.7 Usefulness of the liaison group database and liaison group working

Of the 59 respondents who had accessed the portal, under a quarter (14; 24%) reported having accessed the liaison group database. The 14 respondents who had accessed the database were asked to rate its usefulness on a scale of one to five with one being not very useful and five being very useful. Figure 19 below shows that most respondents (35%) rated it three and no one rated it not very useful. The mean value for the usefulness of the liaison group database was 3.1, indicating that the users did not find it very useful.
The three reasons given for the database not being of use were that it did not help officers to do their job, officers had no need to contact other liaison groups, and because the database did not supply any information other than contact details.

The information on the database was thought to be accurate by 12 (86%) of the 14 respondents and its main use was given as providing the contact details of other liaison groups.

When asked where respondents would look for contact details of other liaison groups, 26% of respondents stated that they would not know where else to look. Fifteen percent would contact the CIEH and 10% would use LACORS. Other sources of information were cited as known officers from liaison groups (8%), senior managers (8%) and 8% stated that they would request the information via EHC net.

When the focus groups were asked for their opinion of the liaison group database, many reported that they were not aware of its existence. Of those that were aware, most had found it useful in that it put them in touch with neighbouring groups.

It was felt that the facility could be enhanced by providing, in addition to the contact details, other information, such as details of current work plans and previous work outcomes, which would facilitate joint group working which was considered to be particularly advantageous when arranging training provision. One suggestion was to post liaison group minutes within the liaison group area. This idea was rejected by most as time consuming and it was recommended that a summary of minutes be displayed as a more user-friendly alternative.

Officers indicated that on occasions they had found the liaison group details to be out of date. They therefore suggested that liaison group chairs regularly update details and be prompted to do so via email alerts.

To gauge the utility of the liaison group database the user survey asked about the level of health and safety enforcement liaison group working. Twenty-five (43%) of the 58
respondents reported to having worked with other liaison groups but 34 (57%) stated that they had not.

The main benefits of collaboration between liaison groups, of which 66 were given, were seen to be the promotion of consistency in approach and enforcement (29; 44%), the sharing of knowledge, information and good practice (15; 23%), effective use of resources (6; 9%) and less duplication (5; 8%). Other benefits mentioned were that training could be provided jointly, enforcement standards were raised and that it helped to highlight the primary areas of concern.

The drawbacks of collaboration between liaison groups, of which 40 were given, were seen to be that it was a time consuming process (11; 28%), it lengthened the time to reach a decision (7; 18%) and that local considerations were not taken into account (4; 10%). However, 8 (20%) stated that there were no drawbacks to collaborative working.

2.3.8 Usefulness of the practice and procedures section

Sixteen (28%) respondents had accessed the practice and procedures section and these users rated its usefulness on a scale of one to five, with one being not very useful and five being very useful. As the Figure 20 demonstrates, the majority, (9; 56%) gave a rating of four. The mean value for the usefulness of the practice and procedures section was 4, indicating that the response was mainly positive.

Three of the 5 (31%) officers who had not found the practice and procedures section useful (giving scores of two or three) stated that this was because documents took too long to download or froze when doing so. Another thought that there was as yet insufficient information in the section. The final respondent felt that their authority needed very specific information that other authorities were unlikely to be able to provide.
2.3.9 Comparison of the usefulness of the main sections

It can be seen from Table 4 below, that with a mean score of 4, respondents found the practice and procedures section the most useful. The discussion board area was found to be the least useful with a mean value of 2.4 and a mode of 2. Respondents were neutral with regards to the liaison group database, with a mean value of 3.1 and a mode of 3.

Table 4 Comparison of the mean and modal values for the usefulness of the main portal areas

<table>
<thead>
<tr>
<th></th>
<th>Practice and procedures</th>
<th>Discussion board</th>
<th>Liaison group database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4</td>
<td>2.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Mode</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

2.3.10 Sources of information and guidance

Respondents were asked to rate on a scale of one to five, with one being 'highly unlikely' and five being 'highly likely', how likely they would be to use information produced by other local authorities. As Figure 21 indicates, the majority (41; 71%), rated the likelihood as high, scoring it as four or five.

![Figure 21 Likelihood of respondents to use information produced by LAs and HSE](image)

When asked the same question in relation to HSE produced information, 48 (84%) respondents rated the likelihood as high, giving a score of either four or five. Respondents reported being marginally more likely to use information produced by the HSE as opposed to information from other LAs.

2.3.11 Posting of information

Thirty-one (53%) of the 58 respondents reported that they were aware of the facility to post information to the portal but only one stated that they had attempted to add information. The 30 that had not made an attempt were asked to give a reason why and Figure 22 below shows these reasons.
Eleven (36%) reported that it was because they were unsure about the process of adding information to the portal. Ten (33%) felt that they did not have any relevant information to post and 9 (31%) stated that it was due to a lack of time.

2.3.12 Encouraging sharing of knowledge and 'know how'

The focus groups were asked to suggest ways of encouraging officers to share knowledge and 'know how'. The main barrier to sharing materials was reported to be officers’ lack of confidence in their work. Many officers felt unwilling to have their work posted on the portal due to a perception that they would be open to criticism and even ridicule from colleagues if their work was seen to be of a poor standard. It was therefore suggested that materials could be submitted via a liaison group as opposed to an individual.

Some officers reported that they were reluctant to keep providing materials for others to use as it appeared that the same authorities put in all the work whilst others contributed little. It was implied that the larger well resourced authorities wanted to charge other authorities for the use of their materials and were thus averse to the sharing culture.

Many officers suggested that feedback on local authority produced materials from HSE would be appreciated. Such feedback would also provide an incentive for officers and authorities to contribute. Articles showing how authorities had used the portal materials were seen as a good idea. Success stories would not only encourage officers to use the reported materials but would inspire others to develop their own.

A major barrier to the initial development of materials for posting on the portal was cited as the lack of available time to do so. The importance of liaising with Chief Officers’ groups was highlighted as a possible route to gaining more time, as these officers determine workload. It was felt that if they were made aware of the benefits the portal could bring to their departments then they would be more likely to allow officers time to become involved and may even encourage it.
One suggestion was to give an award for the best contribution to the portal, as part of the HELA annual awards. This would not only reward officers for their involvement but would encourage others to take part and awareness of the portal’s existence and usefulness could be enhanced.

Many officers did not know about the portal posting facility, whereby users can add information to the portal themselves from any computer. Those that did know about it had no idea how they would go about posting materials and perceived it to be a complicated and onerous task. It was felt that time and a lack of knowledge about how the facility worked were the main barriers to user postings. Users, it was recommended, should be made aware of the facility and provided with incentives to use it, as suggested above.

Instructions on how to post information were given in the portal user guide but only 16 (28%) of respondents reported having read the guide.

Respondents were then asked how officers could be encouraged to post information. Thirty-four suggestions were noted. Nine (26%) stated that the facility should be more widely publicised to make officers aware of its existence. Seven (20%) related to the need for more information on how to use the facility and 5 (15%) to a need for more time. Four (11%) wanted an easy to use facility and 3 (9%) proposed email alerts to remind officers of the facility. Other recommendations recorded were that users should see the benefits brought about by their postings and receive feedback on their materials.

2.3.13 General Comments
The portal was reported to be a valuable source of information that saved officers' time and avoided duplication. The need for greater publicity was seen to be paramount, as many believed the portal was undervalued. Regular updates about portal developments were proposed. Portal layout was viewed as user friendly but some expressed difficulty in finding specific information using the search engine. Content, particularly that held within the practice and procedures section, was rated highly. The addition of more standard notice phrases and paragraphs on the portal were requested.

2.4 DISCUSSION

The process evaluation was specifically concerned with the effectiveness of the user interface improvements and the impact of enhancements to encourage collaboration particularly by the use of the liaison group database, the discussion board and the practice and procedures section of the portal.

The traffic data revealed that during the ten months from July 2003 to May 2004 there were some mild fluctuations in the number of unique sessions, users and authorities but overall usage remained relatively stable. In the last two months of the monitoring period there was a notable increase in usage but it was impossible to predict whether this was due to random fluctuation or a real sustained increase in use. It appeared that in the short term the user interface improvements had not had a significant impact on portal traffic.

The review of the usage of the discussion board, liaison group database and the practice and procedures section revealed that of the three improvements only the practice and procedures section was attracting users (see Table 5).
Table 5 Comparison of portal usage in enhanced sections (July 2003 – July 2004)

<table>
<thead>
<tr>
<th>Portal Area</th>
<th>Mean no. of visits per month</th>
<th>Mean no. unique users per month</th>
<th>Mean no. of LAs per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion board</td>
<td>50</td>
<td>39</td>
<td>30</td>
</tr>
<tr>
<td>Liaison group database</td>
<td>85</td>
<td>69</td>
<td>52</td>
</tr>
<tr>
<td>Practice and procedures</td>
<td>240</td>
<td>138</td>
<td>97</td>
</tr>
</tbody>
</table>

The user survey and focus groups indicated that the discussion board was not seen as useful because there were insufficient messages being posted and similar web based facilities, in particular the EHC net service, were available. This service had been established before the HELA training co-ord portal was introduced and was well known to enforcement officers. The respondents indicated that if there was greater awareness both of the discussion board and the messages placed on it, for example though the use of email alerts, then usage might improve. Some respondents recognised that the functionality of the HELA training co-ord discussion board was superior to EHC net and considered its dedication to health and safety enforcement issues to be an advantage.

The liaison group database was rated as being not very useful because the information it contained did not help enforcement officers to do their jobs and it was limited to the contact details for each group. Respondents suggested that its utility could be enhanced if additional information e.g. current work plans were also included and that potentially this could facilitate more joint working between the groups.

In contrast the usefulness of the practice and procedures section was rated more highly and the traffic data confirmed these opinions. The survey and focus group did not reveal objections to sharing information but this must be tempered with the reluctance of officers to post information on the portal. The majority of the respondents indicated they were likely to use information produced by other authorities, however, only one of the respondents had tried to upload information to the portal. The focus group discussion suggested that a major impediment to sharing information was officers' lack of confidence in their work, though a smaller number did suggest they might be reluctant to share information because there may not be reciprocity from other LAs.

The survey and focus group discussion revealed that there was still a lack of knowledge about the portal and its functionality, particularly recent developments. There remains a need to increase publicity about the portal and its functions.
3 EVALUATION OF PORTAL’S ABILITY TO SUPPORT TRAINING

One of the main aims of phase 3 of the project was to investigate the potential offered by the portal to assist in supporting training needs arising from the Priority Programme (PP) initiatives. It was intended that this aim would be achieved by seeking to develop, in conjunction with LAU, training toolkits or packages based on PP areas, which would be suitable for delivery through the portal.

The musculoskeletal disorders (MSD) PP team had developed a manual handling assessment chart tool, or MAC. Discussions with the team suggested that there was potential to develop a web-based training toolkit to support the use of the MAC by LAs and HSE.

3.1 MANUAL HANDLING ASSESSMENT CHART

The Manual Handling Assessment Chart (MAC) was developed to assist health and safety enforcement officers to identify and assess manual handling activities within the workplace; in particular to highlight high-risk activities warranting immediate attention. Although designed to be used without the need for specialist training, experience gained during the pilot exercise suggested that officers benefited from the opportunity to practise using the tool before applying it during enforcement work. A training toolkit was subsequently developed. The toolkit aimed to enable health and safety enforcement officers to:

- Familiarise themselves with the role and use of the MAC
- Practise using the MAC
- Discuss the application of the MAC to a number of scenarios that would encourage consistency of its application.

3.1.1 Manual handling assessment chart training toolkit

The toolkit was developed by Chris Quarrie (a HSE Specialist Inspector) and the Research team to enable groups of local authority based health and safety enforcement officers (either from one local authority or a group of neighbouring authorities) to work together in a training session to practise using the MAC without the need for specialist input. It was designed to enable participating officers to achieve consistent application of the tool and to promote familiarity and confidence in its use. It was intended to be used by officers without the need for an expert in MAC usage.

The main component of the toolkit was a set of video exercises or scenarios, intended to enable trainees to gain experience in the practical application of the MAC in situations directly relevant to local authority health and safety enforcement. It consisted of six exercises: two examples of one person lifts, two examples of carrying and two examples of team lifts. The video was compiled by the HSE with the assistance of LA officers and local businesses.
The final training toolkit included the following materials:

- Facilitators' notes
- MAC introductory PowerPoint presentation
- MAC introductory presentation supporting notes
- MAC risk assessment video exercises PowerPoint presentation
- MAC risk assessment video exercises supporting notes
- MAC score sheets for video exercises
- Evaluation questionnaires for facilitators and participants
- CPD form

All of these resources were mounted on the HELA Training Co-ordination portal for officers to download. It was not considered to be feasible to provide each authority with a copy of the video of the manual handling scenarios. However, each liaison group, ELO and partnership manager were supplied with a copy that could be freely duplicated.

### 3.1.2 Training sessions

Four regional training sessions were arranged, one each in London, Glasgow, Salford and Bristol, to introduce the toolkit and to demonstrate its use. Each of the forty-nine health and safety liaison groups was invited to send representatives to the events on the understanding that those who attended would cascade the training to their liaison group and possibly their own authority.

Table 6 shows the level of attendance at the events.

<table>
<thead>
<tr>
<th>Event location</th>
<th>Number of delegates</th>
<th>Number of liaison groups represented</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>Glasgow</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Salford</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>Bristol</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>38</td>
</tr>
</tbody>
</table>

The aims and objectives of each session were as follows:

- To enable participants to familiarise themselves with the role of the MAC.
- To enable participants to practise using the MAC.
- To provide the opportunity for discussion of the MAC’s application to a number of scenarios.
- To encourage consistency in application of the MAC.
- To enable attendees to facilitate a training session on the MAC with their liaison group.

Each training session was led by Chris Quarrie of the HSE, who had been involved in the development of the MAC tool itself as well as the training toolkit. Sessions were approximately two hours long and guided trainee facilitators in how to run a MAC training session using the resources available in the toolkit. A hard copy of the toolkit was provided for each delegate at the training session and they were also advised how to access the materials via the HELA Training Co-ordination portal. Facilitators were invited to complete
and return the facilitator evaluation questionnaires contained within the toolkit and to encourage attendees at their facilitated sessions to complete a trainee questionnaire and return them to the portal administrator. On receipt of the questionnaires, CPD certificates were issued to each of the MAC training participants and the facilitator. This tactic was employed in order to encourage feedback on the use of the training toolkit.

3.2 METHODS
The uptake and effectiveness of the MAC training toolkit was assessed in five ways.

1. An evaluation of the Facilitator Training: Evaluation questionnaires were distributed to the trainee facilitators on completion of each of the four regional training sessions. The questionnaire (see Appendix 2) sought details on the following:

- The extent to which the training session achieved its aims and objectives.
- The quality of the training materials.
- The likelihood that trainees would go on to facilitate a session.
- The overall effectiveness of the session and its strengths and weaknesses.

2. Attendees' evaluation of the MAC Cascade Training: The liaison group representatives were asked at the regional training events to cascade the training, with the support of the toolkit, to their own local liaison group. Facilitators were asked to distribute evaluation questionnaires (included in Appendix 3) to the attendees at any of the sessions they had delivered. Attendees were asked to comment on:

- The extent to which the training session they attended achieved its aims and objectives.
- The quality of the training materials.
- The overall effectiveness of the cascade training and its strengths and weaknesses.

3. Facilitators' evaluation of the MAC Cascade Training: The liaison group facilitators were asked to complete a questionnaire (see Appendix 4, part 2) requesting feedback on the specific events they had delivered and the use of the toolkit. The questionnaire sought information on the following:

- The reach of the cascade training
- The extent to which the training sessions they delivered achieved their aims and objectives.
- The usability of the training toolkit and its strengths and weaknesses.

In addition a follow up questionnaire or telephone interview (see Appendix 4, part 3) was conducted to ascertain the following:

- The extent to which the HELA Training Co-ord portal supported cascade training and how the web-based materials were utilised.
- The overall effectiveness of supported cascade training.

4. Telephone interviews with trained facilitators who had not cascaded training: Follow up telephone interviews were undertaken with those who had indicated they would cascade training to their own liaison groups but had not done so (see Appendix 4, part 1). They were asked to identify the reasons why they had not facilitated any training sessions and whether they intended to cascade the training in the future.
5. Monitoring and tracking mechanisms: Statistical information obtained via the monitoring and tracking mechanisms of the portal was analysed to provide details of the level and type of usage of the MAC Training Toolkit mounted on the site.

3.3 EVALUATION OF THE FACILITATOR TRAINING

3.3.1 Description of sample
Twenty (33%) of the 61 respondents attended the training event in London, 18 (30%) were attendees in Salford, 12 (20%) in Glasgow, and 11 (18%) in Bristol.

The sample consisted mostly of principal EHOs (17; 28%), EHOs (16; 26%) and senior EHOs (14; 23%). There were also technicians (5; 8%), students (4; 7%) and others (5; 8%), (see Figure 23). The occupations stated in the 'other' category were mainly food safety officers.

![Figure 23 Job titles of respondents (n=61)](image)

The amount of time that the participants spent on health and safety duties in the course of their work varied, as shown in Figure 24. Thirteen (22%) respondents spent twenty-five per cent or less of their time on health and safety enforcement, 11 (18%) spent between twenty-six and fifty per cent and nearly a quarter (14; 23%) spent between fifty-one and seventy-five per cent of their time on health and safety duties. The remaining 22 (37%) worked between seventy-six and one hundred per cent on health and safety enforcement.
Thirty-nine respondents (65%) reported that they had worked in health and safety for more than five years. A fifth (12; 20%) had worked in health and safety for between two and five years, 4 (7%) for between one and two years and 5 (8%) for less than a year (see Figure 25).

3.3.2 Achievement of training aims and objectives

The facilitators' training session had four aims, namely to:

- Familiarise enforcement officers with the role and use of the MAC
- Facilitate discussions about the use of the MAC in different scenarios and to promote consistency in its application
- Enable attendees to practise using the MAC, and
- To enable attendees to facilitate a training session about the use of the MAC
The participants were asked to rate on a scale of one to five the extent to which they believed each of these aims had been met (see Figure 26 below).

Forty-two participants (69%) felt that the session had fully achieved (score of five) its aim to familiarise enforcement officers with the role and use of the MAC. Sixteen (26%) gave a slightly lower rating of four and just 3 (5%) gave the middle score of three.

Thirty-six respondents (59%) believed that the session fully achieved (score of five) its aim to facilitate discussion about the use of the MAC in different scenarios. A score of two was given by 23 (38%) of respondents and a score of three by 2 (3%).

Approximately three quarters of respondents (46; 76%) considered that the session had fully achieved (score of five) its aim to enable attendees to practise using the MAC. Scores of four and three were given by 13 (21%) and 2 (3%) respondents respectively.

Twenty-eight (46%) respondents believed that the session had fully achieved (score of five) its aim to enable attendees to facilitate a training session on the MAC. A slightly higher proportion (29; 47%) gave a score of four and 4 (7%) gave a score of three.

A mean score for achievement of each of the aims was computed on the basis of the one to five satisfaction scoring applied in the question. Table 7 below shows that all the aims had a mean score above four, suggesting that the training had achieved its aims.

<table>
<thead>
<tr>
<th>Familiarised with use of MAC</th>
<th>Promoted consistency</th>
<th>Enabled practice</th>
<th>Enabled to facilitate training session</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.6</td>
<td>4.5</td>
<td>4.7</td>
</tr>
<tr>
<td>Mode</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 26 Extent to which training fulfilled its aims (n=61)
3.3.3 Quality of the training materials

When asked to rate the quality of the training materials provided, on a scale of one to five, with one being 'very poor' and five being 'very good', over half of the respondents (33; 54%) rated the video exercises as 'very good', the remaining 28 (46%) gave a score of four. Thirty-one (51%) rated the presentation materials as 'very good', 28 (46%) rated them as 'good' and 2 (3%) gave a score of three.

![Figure 27 Quality of the training materials (n=61)](image)

A mean score for the quality of the video and presentation was calculated based on the satisfaction ratings awarded by the respondents, with 'very poor' scoring one and 'very good' scoring five (see Table 8). Both materials were rated highly with a modal value of five (very good).

<table>
<thead>
<tr>
<th></th>
<th>Quality of video exercises</th>
<th>Quality of presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>4.5</td>
<td>4.6</td>
</tr>
<tr>
<td>Mode</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 8 Mean and modal values of the ratings of the quality of the materials (n=61)

No suggestions as to how the materials could be improved were provided.

3.3.4 Likelihood of training being cascaded

Respondents were asked to rate how confident they felt about facilitating a session of their own. Fourteen (23%) stated that they were very confident by giving a score of five but the majority (39; 65%) were slightly less confident, giving a score of four. Six (10%) rated their confidence as neither confident nor uncertain, with a score of three and one person (2%) was uncertain - a score of two, (see Figure 28). Overall therefore confidence was generally high with a mean value of 4.3.
When asked whether they intended to facilitate a session over three quarters (74; 77\%) of the respondents stated that they did. Just 3 (5\%) participants felt that they would not and 11 (18\%) were unsure. The three participants who indicated they would not facilitate a session considered that it was not within their remit. However, one of the three did go on to state that he or she intended to raise awareness of the tool within his or her workforce.

### 3.3.5 Overall effectiveness of the facilitator sessions

Participants were asked to rate the overall effectiveness of the sessions and 57 (97\%) respondents rated the training as effective or very effective, (see Figure 29). The mean value for the rating of effectiveness was 4.4, a very positive result.
Respondents were asked their opinion on the strengths of the sessions and a total of 69 comments were received (see Figure 30). The majority of the comments (26; 39%) related to the practical application of the MAC using the video exercises. The group participation aspect of the session, where delegates had the opportunity to discuss the scenarios and the scoring, was identified as a strength in 12 (17%) of the comments. Nine (13%) of the comments described the clear and simple explanation of the MAC and its application as a strong point, 7 (10%) stated that the presenter came across as being very knowledgeable and 3 (4%) highlighted the PowerPoint presentation as a strength. Other strengths (12; 17%) that were identified included the pace of the session, the information package itself, its inclusion on the HELA portal and that the examples used were relevant to local authority enforcement officers.

Figure 30 Strengths of the training sessions (n=69)

The respondents identified a total of fifteen weaknesses (see Figure 31). Most of these (5; 33%) remarked on errors in the presentation, in particular mistakes in the scoring of the scenarios. Four (27%) stated that some parts of the presentation were rushed, especially the introductory presentation relating to the MSDs and the MAC itself. Two (13%) participants believed the session was too short. The remaining 4 (27%) comments were that there were too many scenarios to watch and score, extra score sheets would have been useful, there was inadequate explanation of the score sheets and a lack of information before the session.
When asked whether the session they attended could be improved in any way, most (41; 79%) of the fifty-two respondents felt that it could not and 11 (21%) believed that it could. Of the eleven respondents who felt it could be improved, six went on to suggest improvements. Two of them remarked that the sessions would improve if the errors in the presentation and scoring of the exercises were amended. Two were of the opinion that the session would benefit from more discussion about the results, which could be achieved by having smaller discussion groups. One respondent requested a slightly slower pace throughout the more detailed areas and another wanted more training sessions on a local basis.

### 3.4 ATTENDEES’ EVALUATION OF THE MAC CASCADE TRAINING

The participants who attended the facilitator workshops were asked to volunteer to cascade the MAC training, using the toolkit, to other LA based health and safety officers within their own liaison group. One representative for each of the liaison groups was sought and thirty-eight were identified. These representatives were then asked to facilitate sessions within their areas and on completion of each session to distribute questionnaires to the attendees, in order to evaluate the effectiveness of the cascade training. The facilitators were given assurances no attempt would be made to evaluate their presentational skills.

#### 3.4.1 Description of sample

At the time of the final evaluation of this MAC training initiative 177 completed questionnaires from attendees at facilitated sessions had been received by the research team. The questionnaires were analysed collectively because details of the overall effectiveness of the toolkit were sought rather than the strengths and weaknesses of individual sessions. The sample consisted mostly of EHOs (70; 40%), technicians (33; 19%), senior EHOs (27; 15%). Principal EHOs (25; 14%), students (7; 4%) and others (15; 8%) also attended the sessions. The occupations stated in the 'other' category were food safety officers, health and safety advisors and inspectors. Figure 32 shows the percentage of attendees in each category.
Figure 32 Job titles of respondents (n=177)

More than half of the respondents (107; 60%) reported spending fifty per cent or less of their time at work on health and safety enforcement. Sixty-seven (40%) spent more than fifty per cent of their time on health and safety duties (see Figure 33).

Figure 33 Time spent on health and safety enforcement (n=174)

Figure 34 shows that the majority of the attendees (107; 62%) had worked in health and safety for more than five years, though a significant proportion (24; 14%) had less than 12 months experience.
3.4.2 Achievement of training aims and objectives

The MAC cascade training session had 3 aims, namely to:

- Familiarise enforcement officers with the role and use of the MAC
- Promote consistency of application of the MAC
- Enable attendees to practise using the MAC

The participants were asked to rate, on a scale of one to five, the extent to which they believed each of these aims had been met (see Figure 35 below).

One hundred and forty seven (83%) of the 177 respondents were of the opinion that the session had achieved its aim of promoting consistency of application (score of four or five). 25 (14%) were unsure and 6 (4%) believed that the session did not promote consistency of application.

One hundred and sixty four (93%) respondents believed that the session enabled them to achieve (score of five or four) its aim to enable attendees to practise using the MAC. One hundred and eleven (63%) of these believed the session had fully achieved (score of five) its aim.

One hundred and seventy one (97%) of the 177 respondents were satisfied (score of four or five) that the training sessions had achieved their aim to familiarise enforcement officers with the role and use of the MAC.
A mean score for the achievement of aims was calculated based on a score of one being awarded for not achieved at all and five for fully achieved. Table 9 below shows that all the aims had a mean score above four, suggesting the respondents believed the training to be effective.

**Table 9** Mean and modal values of the extent to which the sessions achieved their aims and objectives (n=177)

<table>
<thead>
<tr>
<th></th>
<th>Familiarised with use of the MAC</th>
<th>Promoted Consistency</th>
<th>Enabled practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>4.6</td>
<td>4.1</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Those respondents who scored the training as not having achieved any one of the three aims were asked to provide their explanations. The number of respondents was small (6) but two of the observations emphasised that the application of the MAC involved judgement and that training was only part of the process of achieving consistency. One respondent believed that more precise definition of the scores was necessary and the remainder referred to a scoring error contained within an early print run of the MAC booklet as a deterrent to the achievement of consistency.

Respondents were asked whether taking part in the training would influence the likelihood of their using the MAC in their enforcement work. Of the 165 who responded the vast majority i.e. 143 (87%) reported that as a consequence of attending the training they would use the MAC more often than they had previously. Twenty (12%) stated that their use would be about the same and only 2 respondents (1%) thought they would use it less than previously.

When asked how confident they felt about using the MAC in enforcement work following the training 138 of the 172 respondents (80%) said they were confident or very confident. Thirty-one (18%) said they were neither confident nor uncertain and only 3 (2%) were quite uncertain or very uncertain (see Figure 36).
3.4.3 Quality of the training materials

The respondents were asked to rate their satisfaction with the quality of the training materials provided, on a scale of one to five, with one being 'very dissatisfied' and five being very satisfied. Almost half of the respondents (86; 49%) were very satisfied with the video exercises, 66 (37%) were quite satisfied and 20 (11%) were neither satisfied nor dissatisfied. Five (3%) were quite dissatisfied with the quality of the video exercises.

The vast majority of respondents (166; 94%) were satisfied with the presentational materials; just over half (95; 54%) of these were very satisfied and the remaining 71 (40%) were satisfied.

Whilst the level of satisfaction with the training materials in general was good the video was not rated as highly as the presentational materials. There were twelve comments about
weaknesses, the majority of which (6) related to a lack of realism in the solutions that were shown in the video clips. Two respondents pointed out that the lifts shown in the video were atypical of those they would ordinarily encounter in their work. Two others commented on the difficulty of capturing all the information in video form and hence the need for the assessor to make presumptions. One respondent remarked on the absence of information from employees which would normally be available and another believed the examples used were too basic. There were only five comments about weaknesses within the presentation, all of which related to an error in one of the scenario scores. An early version of the presentation had included an error but facilitators were advised of this and asked to download the updated version from the HELA training coordination portal. It appears that this was not done in all cases.

3.4.4 Trainees’ evaluation of the overall effectiveness of the cascade training

Overall the sessions were considered to be effective with 61 (35%) respondents rating them as very effective and 97 (56%) as quite effective. Only 14 (8%) considered they were neither effective nor ineffective and no attendees found them to be ineffective.

![Figure 38 Overall effectiveness of the session (n=177)](image)

A total of 212 comments were received on the strengths of the sessions. Fifteen of these related to the delivery or organisation of the particular training session the respondents attended, e.g. the quality of the presentation and its informal nature, seven of the comments were about the usefulness of the MAC as a tool for assessing manual handling. These were not included in the analysis since they did not relate to the design of the MAC training toolkit. Of the 190 comments that related to the strengths of the training toolkit, the aspect of the training that was most often (91; 48%) seen as a strength was the inclusion of practical exercises through which attendees could practice using the MAC. Forty-eight (25%) of the comments identified the opportunity within the sessions to debate and discuss the application of the MAC as a strength and approximately half of these comments also remarked that this would aid consistency in application. A small number (10; 5%) saw the team cooperation and group work that the session promoted as a strength. The remaining comments related to other aspects of the toolkit: Twenty-four (13%) identified the clear and understandable explanation of the MAC and its application as a strong point, 7 (4%) remarked on presentational aspects such as the design of the videos and PowerPoint slides and 7 (4%) remarked that the session was concise and well focused. A small number (3; 1%) identified the mixed teaching and
learning methods approach (i.e. a mix of didactic teaching and practical exercises) adopted as a strength (see Figure 39).

![Figure 39 Strengths of the training sessions (n=190)](image)

The 177 respondents identified 108 weaknesses, however, 15 of these related to the MAC tool itself and 11 to weaknesses within the particular sessions the respondents had attended, such as time constraints and problems with audiovisual equipment. The principal concern about the MAC was the opportunity for subjectivity in its application. Of the 82 comments about weaknesses within the toolkit itself the main one (identified by 23 respondents and accounting for 28% of the comments) was that there were errors in the early editions of the MAC charts (INDG383). This was the edition of booklets that was released to all LAs and which attendees were asked to bring to the training session. In addition a further 14 (17%) of the weaknesses mentioned were errors in the presentation, in particular mistakes in the scoring of the scenarios. Three types of weaknesses were concerned with the video scenarios: 11 (13%) remarks stated that the videos did not contain all the relevant information needed to make proper judgements about the lifts being assessed. Sometimes this was attributed to the limitations of video and sometimes as the need for supplementary background information to accompany the video clips. Three (4%) believed that the scenarios were not realistic or representative of the types of situations LA based health and safety enforcement officers would normally encounter. A further 11 (13%) of the remarks related to the shortcomings of the solutions presented suggesting that these were not realistic or they introduced further lifting problems. Five (6%) of the remarks were that the introductory session contained very basic information and 4 (5%) believed there was insufficient information on the enforcement action that would follow the use of the MAC. Three (4%) also suggested the need for further clarification of the role of the MAC. Eight ‘other’ weaknesses were identified including concern about the appropriate number of scenarios to use in the session (opinions varied, some saying more were needed and others saying fewer), and one person commented that cascade training does not work. One respondent remarked that the MAC should have also been applied to the solutions. The weaknesses identified are shown in Figure 40.
When asked if they thought the sessions could be improved in anyway, most respondents (105; 64%) believed that they could not. Sixty respondents (34%), considered that they could be improved in some way. Sixty-two recommendations were made, of which 4 related to the specific training session the respondents had attended, rather than the toolkit itself.

Of the 58 recommendations received, 11(19%) specified the need to amend the MAC booklet and a further 4 (7%) to correct the errors in scoring within the presentation. Several of the comments related to the videos scenarios; 9 (16%) suggested the solutions to reduce the manual handling risks provided in the videos could be more practical and/or more realistic, 7 (12%) recommended the examples should be more typical of the types of manual handling activities found in LA enforced premises and 6 (10%) requested improvements in the video itself so more information could be ascertained when watching it. A further 4 (7%) asked for more information about the scenarios. Six (10%) recommended the session could be extended with possibly more scenarios to work through and 6 (9%) of the recommendations suggested other issues for inclusion in the training session such as information on enforcement options and mechanical handling techniques (see Figure 41).
Forty-one respondents made 45 additional comments (see Figure 42 below). Thirteen of the comments related to the specific session the respondent had attended, 11 of these were positive and generally congratulated the facilitator on the way he or she had conducted the session. Only two were negative and related to physical aspects of the training room or its facilities. There were a number of comments (9) about the MAC tool and its use; these have not been included in the analysis since they do not relate to the toolkit itself. The remaining 23 comments were generally very positive; 14 (61%) of the remarks stated the training was excellent or very useful, 3 (13%) that the training had built confidence in using the MAC, 2 (9%) liked the discussion that had been promoted and 1 (4%) reported that he or she thought cascade training was a good way to learn. The remaining 3 (13%) comments suggested that the range of scenarios should be extended e.g. to include examples of manual handling from the attendees at the training. In general the comments were very favourable.
3.5 FACILITATORS' EVALUATION OF THE MAC CASCADE TRAINING

The MAC training toolkit was introduced to facilitators at the four regional training sessions and a total of sixty-one delegates from thirty-eight liaison groups attended these events. Delegates were asked to nominate one attendee from each Liaison Group to cascade the training to their own liaison group members. Thirty-eight representatives agreed to do so. On completion of cascading, the training facilitators were asked to complete a facilitators' evaluative questionnaire and to take part in a follow-up telephone interview survey.

At the time of the evaluation (February 2005) cascade training had been undertaken by more than two-thirds (26; 68%) of the thirty-eight liaison group representatives. The majority (18; 72%) had facilitated one training session, 6 (24%) facilitated two sessions and 1 (4%) facilitated three sessions. Twelve (32%) had not facilitated any training sessions. One facilitator was unable to provide feedback due to maternity leave; twenty-five facilitators therefore participated in the evaluation of the cascaded training sessions. The reasons why 12 (32%) did not facilitate any training sessions are discussed later, in section XX.

3.5.1 The Facilitators
The Liaison Group representatives who facilitated the training held a range of job titles, as shown in Figure 43.

![Pie chart showing job titles of facilitators](image)

**Figure 43** Job titles of facilitators (n = 24)

The Facilitators mostly comprised Principal EHOs (8; 33%) and EHOs (7; 29%). There were also Senior EHOs (4; 17%), Technicians (2; 8%) and others (3; 13%). In the 'other' category there was a Health and Safety Officer, a Senior Food Safety Officer and a student EHO.

3.5.2 Reach of the cascade training
The twenty-five facilitators cascaded the MAC training to 300 delegates via thirty-three training sessions. Seventeen (71%) of the 300 delegates were authorised enforcement officers.
The participants in the thirty-three training sessions were largely drawn from the facilitators' local authorities and their liaison groups. Seven (29%) facilitators offered the training to officers in the local authority in which they were employed, 4 (17%) to officers in their liaison group, 11 (46%) to both groups, and 2 (8%) to others. ‘Others’ included community centre managers and caretakers, and council health and safety advisors.

3.5.3 Achievement of training aims and objectives

The MAC cascade training session had three aims, namely to:

- Familiarise enforcement officers with the role and use of the MAC
- Promote consistency of application of the MAC
- Enable attendees to practice using the MAC

Using a scale of one to five, where one equates to 'not achieved at all' and five equates to 'fully achieved', facilitators were asked to rate the extent to which they considered the training sessions they had delivered achieved the above aims. The scores for all three criteria are presented in Figure 44.

![Figure 44 Extent to which training fulfilled its aims (n=24)](image)

The majority (14; 58%) of respondents considered that the training sessions fully familiarised enforcement officers with the role and use of the MAC (score of five). Seven (29%) gave a score of four, 2 (8%) a score of three, none gave a score of two, and 1 (4%) gave a score of one.

Five (21%) respondents considered that the training sessions fully promoted consistency of application of the MAC (score of five). Twelve (50%) gave a score of four, 4 (17%) a score of three, 1 (4%) a score of two and 2 (8%) a score of one (not achieved at all).

The majority (13; 54%) also considered that the training sessions fully enabled practice of using the MAC (score of five). Seven (29%) gave a score of four, 2 (8%) a score of three, 1 (4%) a score of two and 1 (4%) a score of one (not achieved at all).
The overall response was very positive with the majority of respondents giving scores of four or five for all three criteria, indicating that they considered that the aims of the training sessions were achieved. The reasons why respondents were slightly less positive about whether the training sessions promoted consistency of application of the MAC are unclear. Respondents were asked to supply comment for scores of one or two but few did. It is therefore difficult to determine the reasons for the lower scoring, though one respondent did cite inconsistencies in the scoring of exercises, which may account for the relatively lower rating.

3.5.4 Usability of the Training Toolkit

The majority (15; 62%) of respondents did not experience any difficulties in preparing the training sessions, 9 (38%) experienced some difficulty. Eight (89%) of those who experienced difficulties provided supporting comments. Problems included, using PowerPoint (3; 38%), obtaining the hardware required, i.e., a laptop and data projector (2; 25%); finding an incorrect score in the video exercise (1; 13%); adapting the materials for delivery in a shorter session (1; 13%); and remembering the format for delivery after a period of time has elapsed since attending the original training (1; 13%).

Facilitators were asked to rate the quality of three aspects of the training materials, the video exercises, the presentation, and the facilitators' notes. Figure 45 shows how the respondents rated these materials using a scale of one to five, where one equates to 'very poor' and five to 'very good'.

More than half the respondents (12; 52%) rated the video exercises as 'very good' (score of five), 7 (30%) gave a score of four, 2 (9%) a score of three, and 2 (9%) a score of two. No responses of one (very poor) were given.

The presentation received a score of five (very good) from 9 (39%) respondents. Eight (35%) gave a score of four, and 6 (26%) a score of three. No negative responses of one and two were given.
Eleven (48%) respondents rated the facilitators’ notes as ‘very good’ (score of five). Six (26%) gave a score of four, 5 (22%) a score of three and 1 (4%) a score of two. No scores of one (very poor) were given.

The overall response to the quality of the materials was very positive, with more than two-thirds of respondents giving a score of four or five (where 5 equates to very good) on all three aspects of the materials. No responses of one (very poor) were given.

All respondents considered that the toolkit contained all the materials required to run the training sessions and over three-quarters (19; 79%) did not experience any difficulties with the delivery of the training sessions or in conducting the practical exercises (see Figure 46).

Those respondents who experienced difficulties in delivering the training sessions or in conducting the practical exercises were asked to comment. Ten comments were received. The comments in relation to both questions showed some overlap and are therefore discussed together here. Two were unable to answer some of the questions posed by trainees and did not know where to seek assistance. It was suggested that a contact telephone number or email address for follow-up queries would have proved helpful. A further 2 considered that the control measures suggested were unrealistic in terms of cost and would be difficult to implement. Two reported that they found errors in the scoring system on the video exercises. Two experienced time constraints but were able to adapt the materials accordingly by presenting only selected scenarios. One reported that only black and white charts were available and that coloured originals would have been easier to interpret. One commented that whilst the facilitators’ notes were very thorough, delivery would have been easier if the two sets had been consolidated.

The facilitators were asked to identify the strengths of the training toolkit, and twenty-nine comments were received. Those areas identified by the comments are shown in Figure 47.
The majority of the comments (9; 32%) related to the practical application of the MAC using the video exercises. Five (17%) comments cited the interactivity of the visual aids, that is, the CD-ROM and video, as being strengths of the toolkit. The consistency in approach to training was highlighted by 4 (14%) comments. Three (10%) described the group discussions as strengths and a further 3 (10%) commended the adaptability of the toolkit for delivery to differing groups. The comprehensive nature of the toolkit was identified as a strength in 2 (7%) comments. Other strengths highlighted were the availability of the toolkit, its objectivity, and its relevance to everyday occurrences.

Sixteen comments were made on the weaknesses of the MAC training toolkit. The nature of the comments was somewhat disparate with only two themes emerging, as shown in Figure 48.
Four (25%) comments described the control measures given in the videos as being unrealistic and unlikely to offer practical solutions in real situations. A further weakness, identified in 3 (19%) comments, related to the level of the first part of the presentation. Whilst acknowledging that the coverage was thorough, and provided a good summary of the subject, it was considered that most delegates would have prior knowledge of the issues presented. More than half of the comments in the 'other' category related to the toolkit itself: the length of time required to present the entire toolkit, that it appeared to be designed for repetitive tasks that might not occur in local authorities, poor scenarios, incorrect scores in the booklet, and that the toolkit was a little cumbersome. The remaining comments in the 'other' category related to external factors: acquiring additional equipment to present multi-media presentations, unavailability of a colour printer for printing graphs from the Internet, inconsistency of delivery by officers with differing ideas on enforcement, and convincing audiences who might not appreciate the scientific approach.

Overall the comments were favourable and the strengths outweighed the weaknesses.

Almost two-thirds (15; 65%) of respondents did not consider that the MAC training toolkit could be improved upon; 8 (35%) believed that it could be and put forward a total of nine suggestions for improvement. Three (33%) of the suggestions related to amending the scoring system. Two (22%) recommended combining the video scenarios with the PowerPoint presentation, thus eliminating the need for a television and video; one respondent had successfully implemented this idea. Other suggestions were, revising the intervention solutions, as these were considered impractical, improving the video examples, stating the weight/frequency of lift at the beginning of each exercise, and modifying the MAC charts.

3.5.5 Web Based Training Support

The MAC training materials were made available on the HELA Training Co-ord portal, 18 (72%) respondents found this beneficial and made a total of twenty-three comments identifying the advantages derived from online access. These fall into four categories as shown in Figure 49 below.

![Figure 49 Benefits of having training materials available online (n=23)](image)

Most comments (17; 73%) noted that the HELA Training Co-ord portal enabled easy access to the training materials. This was considered advantageous both to facilitators and trainees,
who could download materials at any time and in any location where Internet access was available. Respondents observed that this level of accessibility allowed them to fit the training into their busy work schedule, provided peace of mind if training materials were forgotten or mislaid, and also enabled trainees to recap after the event. It was also noted that web based materials can be regularly updated (2; 9%), that they save time as facilitators do not have to ‘reinvent the wheel’ (2; 9%), and that they provide greater consistency on a national basis (2; 9%).

Seven (28%) respondents did not perceive any benefits from having the training materials available online. Two remarked that this was because they were given a copy of the CD-ROM at the original training session. This explanation might account for some of the five remaining negative responses.

Most (20; 80%) respondents who downloaded the MAC training materials from the web used them in their original format. Five (20%) changed or modified them. The main modification made by one respondent was to combine the video scenarios with the PowerPoint presentation which allowed the video clips to be rotated as required. The four remaining respondents made minor modifications; such as customising headings to show the facilitators' local authority or liaison group details, changing font types and background colours, and adding colours (green/red/amber) to the score boxes.

The majority (17; 68%) utilised the materials exclusively for training local authority based health and safety enforcement officers. Eight (32%) used them in other ways. Half of these did so internally, for example, with council safety officers, as an educational resource during enforcement work, and as the basis of a priority inspection in conjunction with the HSE. The remaining 50% utilised them externally with businesses as part of their risk assessment or as an educational tool.

### 3.5.6 Effectiveness of cascade training

Respondents were asked whether they agreed that this type of supported cascade training is an effective way of training, the responses are shown in Figure 50.

![Figure 50 Effectiveness of supported cascade training (n=25)](image)
The majority (11; 44% strongly agree, 12; 48% agree) concurred that the MAC training toolkit was an effective way of supporting cascade training. One (4%) was unsure and 1 (4%) disagreed. No respondents strongly disagreed.

Facilitators were asked to identify the advantages and disadvantages of this type of cascade training. Twenty-two (92%) made a total of twenty-seven comments on the advantages, the seven categories identified are shown in Figure 51.

The majority of comments (11; 40%) focussed on the way in which cascade training maximised the efficient use of resources in terms of time, cost, economies of scale, and specialist skills. Time was saved in terms of preparing materials, collating resources, and travelling to external venues; costs were minimised, as the training resources were pre-prepared; a wider range of trainees could be reached in a shorter time scale; and the multimedia toolkit negated the need for individuals to consult IT specialists. Four (15%) comments expressed the view that supported cascade training helps ensure consistency, both locally and nationally. Other advantages were highlighted as the ability to run sessions locally, thus enabling more local authority officers to participate (4; 15%); the peer support generated by small groups (3; 11%), flexibility in terms of time and place of delivery (3; 11%), the opportunity to gain continuing professional development credits (1; 4%), and the ongoing nature of cascade training (1; 4%).

Fifteen (60%) Facilitators made a total of eighteen comments on the disadvantages of this type of supported cascade training, as shown in Figure 52.
Five (28%) comments related to the level of commitment required by trainers in order to successfully implement the training. Respondents emphasised that in order to maintain credibility with trainees they considered it necessary to thoroughly prepare before delivering sessions. Four (22%) pointed out that the success of training sessions could depend upon the skills and expertise of the trainer. A further area of concern, raised in 4 (22%) comments, was that the facilitators' lack of involvement in the preparation of the materials, might result in a gap in their knowledge, and consequently, an inability to respond to trainees’ questions. Misinterpretation during the process of cascade training also gave cause for concern (2; 11%), with one respondent referring to this as the 'Chinese whispers effect'. Other disadvantages highlighted were, obtaining the necessary IT equipment (2; 11%), and the lack of time available to incorporate training into the regular work schedule (1; 6%).

Using a scale of 'strongly agree', 'agree', 'unsure', 'disagree', and 'strongly disagree', respondents were asked if they considered that:

This type of supported cascade training can make an effective contribution to improving:

a. The competence of local authority based health and safety inspectors;

b. The consistency of enforcement action by local authority based health and safety inspectors;

c. The knowledge of local authority based health and safety inspectors.

Similar responses were given for all three aspects, as shown in Figure 53.
The majority of respondents (23; 92%) agreed or strongly agreed that this type of supported cascade training can make an effective contribution to (a) improving the competence of local authority based health and safety inspectors, (b) the consistency of their enforcement action, and (c) their knowledge. One (4%) respondent was unsure, 1 (4%) disagreed and none strongly disagreed on all three aspects. The overall response was therefore extremely positive.

Facilitators were asked to state the extent to which they agreed or disagreed that they would be willing to facilitate similar types of health and safety training in the future. Their overall responses showed a willingness to do so, as shown in Figure 54.
The majority (13; 52% strongly agree; 9; 36% agree) would be willing to facilitate similar types of health and safety training in the future, 2 (8%) were unsure, 1 (4%) disagreed and none strongly disagreed.

Twelve (50%) facilitators provided additional comments or feedback on various aspects of the MAC cascade training. Most reiterated points they had highlighted earlier. These issues have been discussed above and are not therefore restated here. Whilst no additional concerns or weaknesses were raised, a number of respondents highlighted the overall value of the cascade training, comments included:

- *We had a very positive experience of the MAC training it is a good way of doing it and was well received.*
- *The toolkit as a whole package with the presentations, notes, video clips and forms, works well and enables the facilitator to run cascade sessions with minimal time and effort required for preparation.*
- *Cascade training in this way is very good and easy to deliver to colleagues.*
- *The training was very co-ordinated and worked well.*
- *Well done for producing the toolkit. I think this may be the future for training of enforcement officers.*

### 3.5.7 Reasons for not facilitating training sessions

The twelve (32%) Liaison Group representatives who did not facilitate any training sessions comprised two main groups; those who intended to facilitate training in the future (9; 75%), and those who considered that the training would be duplication (3; 25%). Of the nine who intended to undertake the training three had set dates, three planned to deliver joint sessions with other Liaison Group representatives, as they considered this would increase their confidence as facilitators and enable them to deliver the training to larger groups, and three had been unable to organise training sessions due to pressure of work or difficulty in arranging a suitable date.

Three (25%) Liaison Group representatives did not facilitate any training because their colleagues had already undertaken the training, either individually via the HELA Training Co-ord portal, or with the HSE.

### 3.6 MONITORING AND TRACKING MECHANISMS

The toolkit was available to download on the HELA Training Co-ordination portal from 15 July 2004. No hits were recorded during July. Table 10 shows the access statistics for the months of August 2004 to January 2005 inclusive.
Access to the MAC training toolkit on the HELA training co-ord portal

<table>
<thead>
<tr>
<th>Month</th>
<th>Number of visits</th>
<th>Number of Unique Users</th>
<th>Number of Unique Authorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>47</td>
<td>34</td>
<td>30</td>
</tr>
<tr>
<td>September</td>
<td>51</td>
<td>41</td>
<td>36</td>
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<tr>
<td>October</td>
<td>61</td>
<td>40</td>
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<td>November</td>
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<tr>
<td>December</td>
<td>49</td>
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</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>62</td>
<td>46</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>309</td>
<td>236</td>
<td>209</td>
</tr>
</tbody>
</table>

Access to the MAC training toolkit remained fairly constant over the six-month period from August 2004 to January 2005. During August 34 unique users from 30 authorities accessed the resources. Apart from a slight dip in November these figures remained fairly steady, rising to 46 users from 38 authorities in January 2005. Levels of access therefore suggest that use of the toolkit has been sustained and that the cascade process is still ongoing.

3.7 DISCUSSION OF OUTCOMES OF THE MAC CASCADE TRAINING

Overall, the four facilitator training sessions proved to be successful with 97% of the attendees believing them to be effective with the vast majority stating that all the aims of the sessions, with the exception of one, had been fully achieved. The training toolkit itself was regarded as effective by an overwhelming majority of the facilitators who rated the video exercises and the presentation as either good or very good. They particularly liked the opportunity to apply the MAC practically using the video exercises and the fact that they could discuss the scoring with other group members. They found the explanations clear and concise and the presenter to be very knowledgeable about the MAC. The few negative comments related to minor errors in the presentation, which have now been corrected, and the relatively short length of the session given the information covered.

The purpose of these sessions was to enable and encourage attendees to facilitate training within their authorities or liaison groups. Eighty-eight percent of attendees felt either confident or very confident in doing so and over three quarters stated that they would go on to facilitate sessions. These results suggest that this main aim will be achieved.

At the time of the evaluation, questionnaires from 177 attendees at cascade training sessions had been returned (more training had been conducted and this is discussed below). Analysis of these questionnaires indicates that the cascaded training sessions proved to be a success with over 90% of attendees considering that the session had achieved two of the three objectives and over 80% considering that they had achieved the third. Moreover, 80% of attendees felt confident about using the MAC in enforcement work after attending a training session. The quality of training materials was also highly rated, though some attendees echoed comments made by the facilitators relating to the errors in the presentation.

Over 90% of attendees found the session they had attended to be effective with the practical exercises and the opportunity to discuss the application of the MAC being identified as the main strengths of the sessions. Overall comments were very positive stating confirming that
they found the sessions had been very useful and had facilitated an improvement in confidence.

The facilitators' evaluation of the cascade training also indicated that overall the initiative had been a success with 26 (68%) undertaking training sessions and a further 9 (24%) intending to do so in the near future. Those Liaison Group representatives, who had acted as facilitators, reported cascading the training to 300 delegates.

On the whole the facilitators' experiences of cascading the training were very positive. Most considered that the training sessions achieved their aims. The majority did not experience any difficulties in preparing or delivering the training sessions or in conducting the practical exercises. Most found the quality of the training materials to be good or very good. All the facilitators found the toolkit comprehensive, containing all the materials required to deliver the sessions. Two-thirds were of the opinion that the toolkit could not be improved upon.

The main strengths of the toolkit were identified as its practical application, the interactivity generated by the visual aids, and its consistency of approach for officer training. Unrealistic control measures presented in the videos and prior knowledge of certain aspects of the first part of the presentation by some participants were identified as weaknesses of the toolkit.

The facilitators' evaluation of the cascade training highlighted some issues that might negatively impact on cascade training. Some facilitators felt unable to respond to certain questions posed by trainees and identified a need for additional support. The provision of a Helpdesk in the form of a contact email address might help alleviate some of these concerns, thus encouraging others to facilitate similar cascade training in the future. A further area of concern is that most of the liaison group representatives who had not yet facilitated training, but intended to do so, reported that the delay was due to time constraints and pressure of work. This is likely to be a recurring theme if cascade training is to be adopted more widely and it suggests that there is a need for LAs to work together to ensure that those who are tasked with cascade training are provided with sufficient resources to fulfil this role. The findings of the facilitators' evaluation of the cascade training demonstrate that cascade training of this type can maximise the efficient use of resources in terms of time, cost, and economies of scale and specialist skills but to do so it must be properly resourced. Highlighting such long-term benefits might assist officers at all levels in recognising the potential value of cascade training and help prioritise its implementation.

This initiative suggests that supported cascade training can make an effective contribution to improving the competence, consistency of enforcement action, and knowledge, of local authority based health and safety inspectors. Key components of this initiative were the training of those who were tasked with the cascade training and the provision of proper
training support material which was tailored to the needs of LA based officers. Successful future use of cascade training should, as a minimum, incorporate similar support for facilitators if equivalent levels of success are to be achieved. In addition this evaluation has only assessed the effectiveness of cascade training for one subject area, ie the MAC, and there is a need to test the effectiveness of this type of approach for the in development of different types of knowledge and skills.
4. FINAL EVALUATION

A final evaluation was undertaken to assess the effectiveness of the portal in terms of supporting knowledge management (KM) for LA based health and safety enforcement officers. Technology alone cannot create a KM system; nevertheless it can support and facilitate the process. The aim of the Phase 3 project was to explore the extent to which the HELA Training Co-ord portal was capable of supporting a KM system for LA based health and safety enforcement officers.

Developments to the portal and its management were undertaken during phase 3 to promote and encourage the sharing of good practice and ‘know how’ by LA based health and safety enforcement officers. In particular these were:

- The launch of a new dedicated area within the portal for LA sourced knowledge and information.
- Improvements to the portal’s user interface to facilitate uploading of information, by officers in the LAs, without the need for specialised computing skills.
- Enhancements to the discussion board to further encourage its usage.
- Mail shots and direct approaches to LAs and liaison groups to promote knowledge sharing via the portal.

4.1 INTRODUCTION TO KNOWLEDGE MANAGEMENT

The design of the final evaluation was informed by the existing KM literature. The literature was examined to provide a definition of knowledge and KM, to identify the components of the KM cycle and the role of technology in KM. The criteria employed in the evaluation of the HELA Training Coordination portal were also derived from the literature and these are reported in section 4.2.3 below.

4.1.1 What is knowledge?

In the KM literature, a distinction is drawn between tacit and explicit knowledge. Tacit knowledge is personal knowledge that is experience based, internalised and not documented (Duffy, 2000). Marwick (2001) describes tacit knowledge as ‘what the knower knows, which is derived from experience and embodies beliefs and values.’ ie knowledge that is known but not expressed (Mack, 2001). In contrast, explicit knowledge is that which is documented, distributed and shared in the form of presentations, emails and databases (Duffy, 2000: Mack et al, 2001).

Tacit knowledge can be transformed into explicit and similarly explicit knowledge can be transformed into new forms of tacit knowledge, thus knowledge flow has been conceptualised as a cycle. Marwick (2001) explains that knowledge transfer can occur in four ways. The first is directly, from tacit to tacit or socialisation. This demonstrates that knowledge can be shared without ever producing explicit knowledge, as tacit knowledge is shared directly through communication in meetings during which experiences are explained and discussed. Externalisation, tacit to explicit, is thought to be the most difficult transformation. Some proportion of a person’s tacit knowledge is captured in explicit form through conceptualisation, elicitation and ultimately articulation, usually in collaboration with others. The transfer of explicit to explicit or combination occurs via documents and emails or through
education and training. The KM cycle is completed when explicit knowledge is transformed to tacit once again, by internalisation. This is arguably the most important part of the cycle as this is where new knowledge is created. As Marwick (2001) explains, if individuals are to act on information they must first understand and internalise it, thus developing their own tacit knowledge. Reading documents articulating what others have previously learned, particularly if several different sources are consulted, when combined with existing tacit knowledge creates new knowledge with the potential of instigating a new knowledge cycle (Mack 2001). To be fully effective a KM system must endeavour to capture and promote transference of both tacit and explicit knowledge thus enabling the creation of new knowledge.

4.1.2 What is knowledge management?
Knowledge management is not an entirely new concept; it is as Prusak (2001) states, ‘both old and new…a combination of new ideas with ideas that everyone has known all along.’ KM, he argues, was developed in response to globalisation whereby increased demand for global reach and speed compelled firms to question what they knew, who knew it and what they did not know that they should do. Lee and Hong (2002) noted that as a result of the increasingly competitive global economy, the structure of the economy shifted from ‘products-based strategy’ to ‘knowledge-focused business’. This shift was also acknowledged by Quinn et al (1996), who argued that in the post industrial era the success of an organisation was related more closely to its intellectual and systems capabilities than its physical assets. Furthermore, they suggested that the capacity to manage human intellect and to utilise it to develop business products was an essential commercial attribute. The importance of human intellect or knowledge, and its value as an economic resource for organisations has been emphasised by Drucker (1996) who claimed that ‘knowledge is the only meaningful economic resource’ and also by Tanasi and Duffy (1999) who characterised knowledge as the ‘new organisational wealth.’ Knowledge is therefore a valuable resource and a company asset and KM is the means by which companies can harness this asset. The knowledge of local authority health and safety practitioners amounts to organisational wealth and is therefore a significant asset for the public sector.

There is no universally acknowledged definition of KM although most descriptions include similar elements. Saffady (1998) gave a broad description of KM believing it was ‘concerned with the systematic, effective management and utilisation of an organisation’s knowledge resource.’ Davenport and Prusak offered a similar definition suggesting ‘it is the name given to a set of systematic and disciplined actions that an organisation can take to obtain the greatest value from the knowledge available to it.’ It is also described as a discipline that promotes an intelligent and collaborative approach to the process of information asset creation, capture, organisation and use (Bain, 1999).

It is widely accepted that KM is a process. Quinn et al (1997) saw it as ‘the process of continually managing knowledge of all kinds to meet existing and emerging needs, to identify and exploit existing and acquired knowledge assets and to develop new opportunities.’ Prusak (2001) defines KM as all the tools, technologies, practices and incentives deployed by an organisation to know what it knows and to make this knowledge available to people who need to know it when they need to know it. A similar definition by Mack et al (2001), suggests KM encompasses the methods and tools for capturing, storing, organising and making accessible knowledge and expertise within and across communities.
4.1.3 The knowledge management process

The KM process has been conceptualised by Lee and Hong (2002) as incorporating four basic steps:

1. knowledge capture
2. knowledge development
3. knowledge sharing; and
4. knowledge utilisation

Knowledge capture is defined as the process by which knowledge is obtained and stored. The knowledge or information is obtained from the internal or external environment and stored in an information system such as a traditional database system. The tacit knowledge gathered from the sources will be converted to explicit knowledge. The database acts as a repository for knowledge and ‘know how’ and expertise generated by groups or individuals. Knowledge development involves the organisation and analysis of the captured knowledge. Knowledge sharing was defined by Huber 1991 as ‘the process by which information from different sources is shared and thereby leads to new information or understanding’ (Lee and Hong 2002). Knowledge utilisation is described as the final step of the knowledge management process to enable employees to use knowledge without specialised computer knowledge.

4.1.4 What is a knowledge portal?

KM itself is not a technology; however, technology is fundamental to the KM process (Duffy 2000). One technology that has become an important element of KM strategies is the Internet, which harnesses and enables the sharing of organisational knowledge. It also potentially increases performance levels, provides a better foundation for decision making and enhances both the effectiveness and efficiency of the organisation (McIvor 2004). McIvor (2004) also suggests that Internet technologies have the potential to facilitate culture change, particularly within the public sector, where ‘machine bureaucracy’ has remained the dominant structure. Woodall (2000) likens the impact of the Internet on brain power to that of the industrial revolution technologies on muscle power.

The Internet is used in many ways to assist organisations to share knowledge and information either internally (intranet) or externally, with clients/consumers, often providing online services (extranet). More recently, developments in Internet technology have brought about the ‘portal’ or ‘knowledge portal’. The term ‘portal’ describes a web portal that acts as an entry point to access specific information as opposed to the general ‘web’. Portals essentially facilitate access to large accumulations of information using organisational schemes such as taxonomies. A knowledge portal is defined by Mack, Ravin and Byrd (2001) as, ‘single point access software systems intended to provide easy and timely access to information and to support communities of knowledge workers who share common goals’. Trotter (2001) describes a knowledge portal as a ‘content access enabler; a central path to community relevant information’. According to Steinbrenner (2001) portals go beyond static web pages and require a ‘sign on’ which then links to some knowledge the organisation has collected about the visitor. That knowledge allows portals to be tailored to meet individuals’ needs.

4.1.5 The potential of the HELA training co-ord portal to support Knowledge Management

The review of the literature suggests that the HELA Training co-ord portal had many of the attributes of a knowledge portal ie:
An entry point to relevant information for a specific community. The portal supports a community of LA based health and safety enforcement officers who share common goals, for example ensuring compliance with health and safety legislation, consistent application of the legislation etc.

The adoption of an organisational scheme, familiar to the LA health and safety enforcement community employing familiar terminology and taxonomies to facilitate access to relevant information.

A ‘sign on’ facility through which different user groups are presented with information specific to their needs. The HELA Training Co-ord portal is only accessible to those users with a unique username and password and different types of information are provided depending upon the type of users. For LA based health and safety officers the portal recognises their employing local authority and the health and safety liaison group to which they belong. The user can then view and update statistical inspection data specific to that authority. Users from Scotland also have their own dedicated discussion forums where they can communicate with other authorities in their area.

It is also possible to identify ways in which the portal can support and promote the KM cycle as described by Lee and Hong (2002).

Knowledge capture: Embedded with the HELA Training Co-ord portal is a traditional database system that acts as a repository for knowledge, ‘know how’ and expertise generated by LA health and safety enforcement practitioners and the HSE. Tacit knowledge of practitioners is converted to explicit knowledge when knowledge and experiences are documented in the form of guidance, presentations, narratives, checklists etc. Explicit knowledge is obtained in three ways:

- HSE staff and practitioners send the information to the portal administrators to be uploaded
- Information is uploaded directly by practitioners and HSE staff
- Administrators approach practitioners to request information either directly or through requests in newsletters and mail shots.

In addition the users post questions and queries on the discussion board. Other users can respond to these queries sometimes by providing existing documentation or alternatively by attempting to answer the queries by calling on their own experiences (tacit knowledge). The discussion board is fully archived and capable of capturing explicit and tacit knowledge.

Knowledge Development: Information supplied to the HELA portal is organised by the portal administrator into relevant topic areas that are kept under constant review. The knowledge can be drawn down from the site and developed further, perhaps reflecting the particular circumstances within the LA.

Knowledge Sharing: There are 410 LAs that enforce the same health and safety legislation within their geographical boundaries. Each LA works independently of the others although their functions are the same. Posting guidance etc developed by individual LAs on the portal for others to view and download promotes knowledge sharing. In addition the discussion
forum enables the sharing of ideas and problem solving amongst practitioners dealing with parallel tasks.

**Knowledge Utilisation:** Information and shared experiences in the form of case studies, guidance documents and examples of good practice submitted to the portal by Practitioners can be downloaded and adopted in their original form or alternatively used as a basis from which new procedures and guidance are developed.

The portal does process many of the critical attributes identified in the literature as central features to enable it to support the capture, storage and organisation of knowledge for LA health and safety enforcement practitioners. The evaluation reported below was designed to evaluate the extent to which this occurred in practice.

### 4.2 METHODS

There were three components to the final evaluation:

- analysis of the monitoring and tracking data from the portal
- a user survey
- a non user survey

#### 4.2.1 Monitoring and tracking data

Statistical information obtained via the monitoring and tracking facility on the portal was analysed to identify trends and patterns of usage during the period September 2003 to January 2005 (ie the time span of Phase 3 of the project).

#### 4.2.2 User and non user sample

The population was defined as health and safety enforcement officers who were registered as ‘normal users’ on the portal database on the 21st December 2004. This included users who had registered but never accessed the portal (ie non users). Remaining user groups were excluded, as their members were not LA officers but HSE staff and portal administrators. A sampling frame was unnecessary as it was possible to identify and measure each person in the population and to include any one of them in the sample.

Level of usage varied considerably throughout the population so it was stratified to ensure the sample was representative. The strata were defined by the number of times a member of the population had logged on to the portal ie number of logins. A proportionate number from each stratum were then sampled using systematic sampling, whereby every nth name from the database for that stratum was selected.

Table 11 indicates the criteria used to define each stratum and the number within each of them.
Table 11: Sampling method

<table>
<thead>
<tr>
<th>No. of logins</th>
<th>Stratum</th>
<th>Population</th>
<th>% Total Population</th>
<th>No. to be Sampled</th>
<th>Systematic Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Non users</td>
<td>563</td>
<td>30</td>
<td>42</td>
<td>Every 13th</td>
</tr>
<tr>
<td>1-14</td>
<td>Infrequent users</td>
<td>1062</td>
<td>57</td>
<td>80</td>
<td>Every 13th</td>
</tr>
<tr>
<td>15-49</td>
<td>Frequent users</td>
<td>198</td>
<td>10</td>
<td>14</td>
<td>Every 14th</td>
</tr>
<tr>
<td>50 or more</td>
<td>Very frequent users</td>
<td>49</td>
<td>3</td>
<td>4</td>
<td>Every 12th</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1872</td>
<td>100</td>
<td>140</td>
<td></td>
</tr>
</tbody>
</table>

To ensure the data was not biased, only one person from each local authority was selected. If a person was selected from an authority that had already been sampled then the next person in the database was chosen.

4.2.3 Developing evaluation criteria

A review of KM and portal evaluation literature was conducted and from this four main evaluative criteria were established: awareness, access, usability and culture.

**Awareness:** An evaluation of the Indian government portal (Gyandoot) in June 2002 (Centre for Electronic Governance, 2002) found that a lack of awareness of the existence of this portal led to poor use and adoption. The evaluation looked at how users became aware of the portal and what motivated them to use it and to continue to use it. It also highlighted the importance of examining non use of the portal and why some people had not accessed the portal. The findings established none use could mainly be attributed to ignorance of the portal’s existence.

A well-defined purpose and the use of clear terminology were considered important by Davenport et al (1998) in increasing awareness. Knowledge managers, they state, must decide how and when to effectively communicate their objectives without using complicated terminology. Trying to avoid terms such as ‘knowledge’ and disguising the KM system as something else may lead to rearguard actions and managers should address the language issue in a way that best fits their culture.

Lack of awareness of the existence of the HELA training coordination portal and also limited understanding of its purpose had been established barriers to use in the process evaluation. It was therefore necessary to assess whether awareness had improved since then.

**Access:** The University of Hull’s evaluation of its institutional portal found that access was a key requirement for success, particularly in relation to logging in and signing off. Its users found the number of usernames and passwords supplied for web portals, such as hotmail or online banking, overwhelming and the number of log-ons was an obstacle to system usage. Another issue of concern regarding access was security, in that sensitive information could possibly be accessed by non approved users.

**Usability:** Sullivan (2002) asserts that the main reason for poor adoption of portals was associated with ease of use. If users find alternative methods of finding and sharing information easier to use then they usually, ‘kiss the portal goodbye’. The University of
Nottingham conducted an evaluation of its ‘COMPASS’ portal in 2003, designed to be a one stop shop for students. The main aim of the evaluation was to assess if the portal was easy to use, in relation to specific features. This was done by examining the frequency of use of certain features and by asking respondents to rank features in order of importance/value and usefulness. A similar evaluation of the University of Hull’s portal involved rating the top ten features (Dolphoin and Sherrat, 2003).

Ease of use was described in the Northern Ireland Integrated Managed learning Environment portal evaluation (NIMLE) as ‘front end look and feel’. Portal aesthetics was considered to be a factor in creating a user-friendly portal. Zazelenchuk (2003) considered user satisfaction to be the most appropriate way of evaluating a portal and that user adoption was the sign of success. An evaluation by agency.com (Kaplan 2001) also found that users who were satisfied with a portal used it more often and reported a significantly higher level of benefits. User satisfaction, it is claimed, is influenced greatly by having the right content, features and design factors. Zazelenchuck (2003) reported that efficiency of use was important in gaining user satisfaction. If the system was responsive it would lead to greater satisfaction than if the system was slow. Like Kaplan, he commented on certain design factors and explained the importance of ‘having everything in its place’. Portal organisation and layout is the balance between the quantity of information and its presentation. Clutter and confusion, he argued, were failures of design. The importance of layout and organisation of information on a portal was also examined by Marwick (2001) who argued that ‘the most important technology for the manipulation of explicit knowledge helps people with the most basic task of all; finding it’. An effective way of doing this, he explained, is by using taxonomies i.e. a hierarchy or set of categories. This allows users to navigate to documents without doing a search. They have to be able to use the taxonomy with minimal training and it has to cover the domain of interest in enough detail to be useful.

Relevant, up to date and fresh content is considered to be a key feature of a successful portal (Lawley et al., 2002). Sullivan (2002) considered a lack of content integrity to be the second cause of poor adoption of portals (after ease of use as previously discussed). He reported that often users do not believe what they need is accessible through the portal and they have concerns over the accuracy of content. He argues ‘if users can find what they need and trust what they find, then users will adopt the portal’.

**Culture:** A well designed portal with all of the above features is not the only element of an effective KM system. For a portal to be successful it must be used and it must capture relevant knowledge. To do this, a change in culture is often required. Davenport et al (1998) highlighted the need to ‘establish an environment conducive to more effective knowledge creation, transfer and use’. Initiatives should build awareness and cultural receptivity to knowledge and attempt to change behaviour relating to knowledge. A ‘knowledge friendly culture’ is one of the most important factors for a project’s success and should ensure that people are not inhibited in sharing knowledge and they are not alienated or resentful of the company and do not fear that sharing knowledge will cost them their jobs (Davenport *et al* 1998). McIvor (2004) when examining public sector organisations, found that much of the information and knowledge processed and utilised occurred within independent departments which prevented sharing of knowledge between organisations and departments thus creating ‘knowledge silos’. Such idea isolation led to the continual ‘reinvention of the wheel’. They also found that the culture within government organisations lacked the necessary joined up spirit needed to achieve the full potential of Internet technologies and departments often underestimated the value of working together. In contrast, Kaplan (2001) tested the theory that employees naturally shelter information from one another, requiring the proper culture and company incentives to encourage open knowledge sharing, and found that only 1% of
their respondents said they did not share knowledge because they did not want to lose their hard earned expertise.

Taking all the above factors into consideration an evaluative model was constructed from which both the user and non user questionnaires were designed. These questionnaires were designed to elicit data in the following:

**Access**
- Access points
- Access infrastructure
- Access security

**Awareness**
- Awareness of the purpose of the portal
- Awareness of existence of the portal
- Awareness of portal functionality
- Awareness of unique selling point (USP)

**Usability**
- Aesthetics
- Structure/layout
- Features
- Content

**Culture**
- Behaviour
- Organisational Resources

### 4.2.4 User survey

**Design:** A telephone survey was designed to assess the effectiveness of the portal to support the KM process for local authority (LA) based health and safety enforcement officers. The four main evaluative criteria discussed above provided the basis for the interview schedule design.

**Pilot:** A pilot survey took place, in November 2004, with four LA health and safety enforcement officers who were randomly sampled from the user database. As a result of the pilot seven questions were deemed unnecessary or repetitive and were subsequently removed. Certain questions were misunderstood; clarity was improved by altering their wording. The survey took an average of 25 minutes to complete which was regarded as excessive. After the removal of the seven unnecessary questions this was reduced to approximately 20 minutes.

**Final Survey:** The survey took place over a three-week period from 17th January 2005 to 4th February 2005. Once selected, each person was contacted by telephone, by one of two researchers, to request participation in the survey. If the person agreed to take part then a mutually convenient time was arranged to complete the survey. A confirmation email and a copy of the survey questions were dispatched to the respondent (Appendix 5). Providing the questions in advance reduced the time taken to complete the interview and put the respondents at ease about the nature of the questions that were to be asked. In some cases the respondents had prepared answers when the interviewers phoned which also accelerated the process considerably.
During the survey, results were inputted directly into an Access database. The data was then exported to SPSS to be analysed.

4.2.5 Non user survey
Non-users were considered to be those who were registered on the portal but who had never logged on. The main purpose of the non user survey was to establish why these officers had not visited the portal and what would encourage them to visit it in the future.

Non users were contacted by telephone and asked to participate in the survey at that time. Each survey took between two and ten minutes to complete, depending on the length of answers given and the circumstances of the non user. The questionnaire was completed by the researchers and then inputted into SPSS to be analysed (see Appendix 6).

4.3 FINDINGS: MONITORING AND TRACKING DATA

4.3.1 Registered users
At the time of the final evaluation, four years into the project, there were almost 2500 individual users registered on the portal and approximately 60% of these were active ie had logged onto the portal on more than one occasion. Each user was assigned to a particular user group. This group determined which areas of the portal the user had access to and which functions were available to them. The distribution of users amongst these groups is shown in Table 12 below.

Following the process evaluation (reported in Chapter 2) the user database was cleared of users who had not logged in during the previous 12 months and therefore the number of total users reduced from 3803 to 2446. A new user group was also established to separate the HSE users from normal users in order to give additional administrative rights and to enable separate monitoring of their use of the portal.
Table 12 Categorisation of users

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrators</td>
<td>Register users and set permission levels for user groups. Access and edit all areas, post information to all areas, approve content, analyse traffic stats, interrogate inspection data for all authorities.</td>
<td>30</td>
<td>32</td>
<td>+2</td>
</tr>
<tr>
<td>Authors</td>
<td>Access all areas, edit selected areas, post information to selected areas, post inspection form data and view own statistics. Post to discussion board, calendar and liaison group database.</td>
<td>457</td>
<td>423</td>
<td>-34</td>
</tr>
<tr>
<td>HSE users</td>
<td>Access all areas, post information to selected areas, analyse traffic stats, interrogate inspection data for all authorities. Post to discussion board, calendar and liaison group database.</td>
<td></td>
<td>76</td>
<td>-</td>
</tr>
<tr>
<td>Normal users</td>
<td>Access all areas, post inspection report form and view own stats. Post to discussion board.</td>
<td>3263</td>
<td>1872</td>
<td>-1391</td>
</tr>
<tr>
<td>Fire Authorities</td>
<td>View EMM</td>
<td>34</td>
<td>35</td>
<td>+1</td>
</tr>
<tr>
<td>Synergy</td>
<td>View Synergy section</td>
<td>16</td>
<td>5</td>
<td>-11</td>
</tr>
<tr>
<td>Training providers</td>
<td>View and edit 'find a course resource', 'course review' and 'find a venue'.</td>
<td>3</td>
<td>3</td>
<td>Nil</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>3803</strong></td>
<td><strong>2446</strong></td>
<td><strong>-1433</strong></td>
</tr>
</tbody>
</table>

4.3.2 Portal Usage

A component of the final evaluation was an analysis of the portal monitoring and tracking data for the 18 month period September 2003 to February 2005. The data has been analysed as follows: number of unique sessions, number of unique users and number of unique local authorities. The following trends and patterns of usage were identified. In addition usage of various areas of the portal was reviewed namely the discussion board, the liaison group database, the practice and procedures area and the priority programmes area.

4.3.3 Number of unique sessions

Unique sessions are periods of time recorded when an individual user logs on to the portal to the time they log off. Between September 2003 and May 2004 (the first six months of phase 3) the number of unique sessions averaged at 735 per month, with lows of 614 in December and 655 in April and May. The number of sessions then rose to 1057 in June and reached a peak of 1877 in January 2005. There were also noticeable peaks in November 2003 and 2004 of 987 and 1863 respectively. The mean number of unique sessions a month during this 18 month period was 1109.
The data was analysed over two nine-month periods. Table 13 below shows that the mean number of unique sessions increased by 102% from September 2003 to May 2004 as compared to June 2004 to Feb 2005.

### Table 13 Mean number of unique sessions 2003-2005

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Mean number of unique sessions</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 03 – May 04</td>
<td>735</td>
<td>-</td>
</tr>
<tr>
<td>June 04 – Feb 05</td>
<td>1482</td>
<td>+ 102%</td>
</tr>
</tbody>
</table>

#### 4.3.4 Number of unique users

Unique users are individual users who have logged on the portal at least once during a specified month. Between September 2003 and May 04 the number of unique users was relatively consistent averaging 266 a month, with a peak of 316 in November 03. Numbers then rose to 379 in June and carried on rising to a peak of 529 in November 2004. The lowest number of users was recorded in May 2004 at 243. The mean number of users during this 18 month period was 355.
A similar nine monthly analysis of the mean number of unique users shows an increase of 67% for the period September 03 and May 04 as compared to June 04 to February 05, as detailed in Table 14.

![Table 14 Mean number of unique users 2003 - 2005](image)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Mean number of users</th>
<th>Percentage Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 03 – May 04</td>
<td>266</td>
<td>-</td>
</tr>
<tr>
<td>June 04 – Feb 05</td>
<td>445</td>
<td>67%</td>
</tr>
</tbody>
</table>

4.3.5 Number of unique authorities

Unique authorities are recorded when a user from a particular authority logs on to the portal at least once in the specified month. Numbers initially rose from 127 in September 2003 to 174 in February 2004, before falling to 145 in May 2004. In June the number of authorities using the portal increased to 208 and carried on rising steadily to a peak of 266 in both January and February 2005. The mean number of authorities using the portal during this 18 month period was 193.

![Figure 57 Number of unique authorities](image)

Based on a nine monthly analysis, Table 15 below shows that the mean number of unique authority users increased by 56% between the period September 2003 to May 2004 when compared to the period June 2004 and February 2005.

![Table 15 Mean number of unique authority users 2003 - 05](image)

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Mean number of authorities</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 03 – May 04</td>
<td>151</td>
<td>-</td>
</tr>
<tr>
<td>June 04 – Feb 05</td>
<td>235</td>
<td>+56%</td>
</tr>
</tbody>
</table>

4.3.6 Number of Discussion Board Visits

Visits to the discussion board averaged 51 per month between September 2003 and June 2004. Numbers then increased to 73 in August 2004 and carried on rising to a peak of 350 in November 2004 before levelling out to around 250 in December, January and February 2005. During the first 9 months the mean number of visits was 51 but this rose to 202 during the next 9 months, an increase of 296%. The mean number of visits during the 18 month period was 122.
4.3.7 Number of unique users visiting the discussion board

The number of unique users visiting the discussion board fluctuated between 18 in May 2004 and 163 in November 2004. Between September 2003 and May 2004 users averaged 39 but this increased to a mean of 109 between June 2004 and February 2005, an increase of 179%. The mean number of unique users visiting the discussion board during this 18 month period was 89; approximately a quarter of the mean number of users (355) who visited the portal during the same time period.

4.3.8 Number of unique authorities visiting the discussion board

The number of unique authorities visiting the discussion board varied from 17 in May 2004 to 115 in November 2004. Between September 03 and May 04 authorities averaged at 30 but this increased to a mean of 82 between June 2004 and February 2005, an increase of 173%. The mean number of unique authorities visiting the discussion board during this 18 month period was 54; more than a third of the mean number of authorities (193) who visited the portal during the same time period.
The number of postings to the discussion board varied from none at all in November 2003, May and June 2004 to peaks of 17 in September 2003 and 20 in November 2004. In the first 9 months of the 18 month time period (September 2003 to May 2004) the mean number of postings was 3 but in the second 9 months (June 2004 – Feb 05) the mean had increased to 9. Clearly postings were steadily increasing. The mean number of postings for the 18 month period was 6.

Visits to the liaison group database ranged from 61 in April 2004 to a peak of 167 in November 2004. The average number of visits per month for the first 9 months was 86 and this rose to 117 in the second 9 months, an increase of 36%. The average number of visits per month during this 18 month period was 101.
4.3.11 Number of unique users of the liaison group database

The number of unique users of the liaison group database varied from 52 in April 2004 to 119 in November 2004. The average number of unique users during the first 9 months was 69 and this rose to an average of 92 over the next 9 months, an increase of 33%. The mean number of unique users visiting the liaison group database during the 18 month time period was 80, less than a quarter of the mean number of users (355) who visited the portal during the same time period.

4.3.12 Number of unique authorities using the liaison group database

The number of unique authorities using the liaison group database rose from an average of 51 during the first 9 month period to an average of 72 in the second 9 month period, an increase of 41%. The lowest number of users was recorded in April 2004 (37) and the highest in November 2004 (93). The mean number of authority users of the liaison group database during the 18 month period was 62 which equates to 32% of the mean number of authorities (193) visiting the portal during the same time period.
4.3.13 Number of visits to the practice and procedures area

This area of the portal was added in February 2004 as a repository for LA sourced knowledge, consequently traffic data is only available for a 13 month period between February 2004 and February 2005. The number of visits increased from 18 in Feb 2004 to a peak of 583 in November 2004. Visits then levelled off to around 530 per month between December 2004 and Feb 2005. The mean number of visits for the first 6 months (Feb 2004 to July 2004) was 213 and during the last 7 months (August 2004 to Feb 2005) this rose to 497, an increase of 133%. The mean number of visits during the 13 month period was 366.

4.3.14 Number of unique users of the practice and procedures section

The number of unique users of the practice and procedures section started at just 12 in February 2004 but rose to a peak of 297 in February 2005. The mean number of users for the first 6 months (February 2004 – July 2004) was 124 and during the last 7 months (August 2004 to February 2005) this rose to 263, an increase of 112%. The mean number of users during the 13 month period was 199, which is more than half of the mean number of users (355) who visited the portal during the same time period.
4.3.15 Number of unique authorities visiting the practice and procedures section

The number of unique authorities accessing the practice and procedures section started at just 6 in February 2004 but rose to a peak of 201 in February 2005. The mean number of unique authorities for the first 6 months (Feb 2004 – July 2004) was 89 and during the last 7 months (August 2004 to Feb 2005) this rose to 179, an increase of 101%. The mean number of different authorities using the portal during the 13 month period was 137, which equates to 71% of the mean number of authorities (193) who accessed the portal during the same time period.

4.3.16 Number of visits to the priority programmes area

Visits to the priority programme area, which is the repository for information and guidance about the priority programme topics ranged from 304 in December 2003 to a peak of 832 in November 2004. The average number of visits per month for the first 9 months was 352 and this rose to 605 in the second 9 months, an increase of 72%. The average number of visits per month during this 18 month period was 479.
4.3.17 Number of unique users visiting the priority programmes section
The number of unique users of the priority programme area varied from 139 in December 2003 to 354 in November 2004. The average number of unique users during the first 9 months was 155 and this rose to an average of 273 over the next 9 months, an increase of 76%. The mean number of unique users visiting the priority programmes section during the 18 month time period was 214, which equates to 60% of the mean number of users (355) who visited the portal during the same time period.

4.3.18 Number of unique authorities visiting the priority programmes section
The number of unique authorities accessing the priority programme area increased from an average of 99 during the first 9 month period to an average of 169 in the second 9 month period, an increase of 71%. The lowest number of unique authorities was recorded in September 03 (84) and the highest in January 2005 (208). The mean number of authority users of the priority programme area during the 18 month period was 134 which equates to 69% of the mean number of authorities (193) visiting the portal during the same time period.
4.3.19 User Posts
For the 13 month period, January 2004 to February 2005, 58 resources posted on the portal were contributed by local authorities. Of these only two had posted the resources themselves using their authorship password. The rest were added via the portal administrator. Seventy-three resources were contributed by HSE and of these 5 had been posted by the staff themselves. The rest were added by the portal administrator.

4.4. FINDINGS: USER SURVEY

4.4.1 Description of sample
The user sample was stratified on the basis of usage (ie infrequent, frequent etc) reflecting the different number of users in each of these categories. The aim of the survey was to interview approximately 100 users with a representative sample for each of the different categories of use. Table 16 below shows the target sample and the actual number sampled in each user group.

Table 16 Sampling proportions of the specified user groups

<table>
<thead>
<tr>
<th>Number of logins</th>
<th>User category</th>
<th>Nos. of users</th>
<th>% of user pop</th>
<th>Sample target</th>
<th>Actual Number sampled</th>
<th>% of actual sample</th>
<th>% diff btw target &amp; actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-14 Infrequent</td>
<td>1062</td>
<td>81</td>
<td>81</td>
<td>75</td>
<td>73</td>
<td>- 8</td>
<td></td>
</tr>
<tr>
<td>15-49 Frequent</td>
<td>198</td>
<td>15</td>
<td>15</td>
<td>19</td>
<td>18</td>
<td>+3</td>
<td></td>
</tr>
<tr>
<td>50 or more Very frequent</td>
<td>49</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>9</td>
<td>+5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1309</td>
<td>100</td>
<td>100</td>
<td>103</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The majority of the sample were infrequent users (75; 73%), 19 (18%) were frequent users and 9 (9%) used the portal very frequently. The actual user population was made up of 81% infrequent users, 15% frequent users and 4% very frequent users.

Of the 103 enforcement officers 38 (37%) were EHOs, 28 (27%) PEHOs/Team managers, 23 (22%) SEHOs and 14 (14%) were Technical Officers (see Figure 71).
Marginally less than a third of the sample (31; 32%) spent less than 25% of their time on health and safety enforcement and around another third (29; 31%) spent between 26 and 50%. Twenty-six (25%) reported spending between 76% and 100% of their time on health and safety enforcement and 11 (12%) reported that they dedicated between 51 and 75% of time to it (see Figure 72).

Forty-one (40%) of the sample stated that they had worked in health and safety for more than 10 years. Thirty-six (35%) had worked in the specialism for between 6 and 10 years, 23 (22%) for between one and five years and just 3 (3%) had worked in health and safety for less than 12 months, (see Figure 73).
4.4.2 Access: equipment

One hundred and two (99%) of the 103 respondents stated that they had access to their own online PC and just 1 (1%) had to share with one other colleague.

A similar high number (100; 97%) had facilities to download and save resources from the portal, 2 (2%) did not know if they had and only 1 (1%) respondent could not save materials. Fifty-seven (55%) of respondents were able to download or upload any file types from the Internet but restrictions were in place for 38 (37%) of respondents. Eight users (8%) did not know if restrictions were in place or not.

Of the 38 who reported download restrictions, the majority (27; 26%) were unsure about the details of the restrictions and other respondents reported restrictions in relation to file types as shown in Figure 74. Seven (18%) reported that in their authorities it was necessary to seek permission to download any files from the Internet. Five (13%) stated that the download of programmes and applications was restricted, 5 (13%) that it was dependent on file size and 4 (11%) said that all executable files were restricted and 2 (5%) said they were not allowed to download any Excel files. Other restrictions (5; 13%) included certain content restrictions, unauthorised files, zip files and HTML documents.
4.4.3 Access: Usernames and passwords

Ninety-six (93%) of the 103 respondents had their own password to gain access to the portal, but these may have been shared with other colleagues. Seven (7%) reported having used a colleague’s password to gain access.

Satisfaction with the present system for user names and passwords was reported by 91 (88%) respondents with 4 making suggestions for improvements. Of the 12 (12%) who expressed dissatisfaction, 9 made suggestions for improvements to the system as shown in Figure 75. The majority (6; 46%) of the improvement suggestions requested that each authority was given one username and password that could be used by all officers in that authority. Many believed that having to request passwords from the portal administrator when new staff joined or when staff left or changed name was time consuming, particularly in those authorities with a high turnover of staff. An alternative suggestion (5; 38%) was for each LA to have the facility to manage and set their own usernames and passwords. One respondent thought it would be easier to have no passwords at all and another thought that simplifying the usernames and passwords system would help. One respondent, although it was not a suggestion for improvement, had concerns that if staff left employment and moved to the private sector they could still gain access to the portal if the portal administrator had not been informed of their departure.
Fifteen respondents (15%) reported having experienced password problems on occasions and 87 (85%) had no such problems. Of the 15 who had problems, 13 explained what they were. Eight (62%) had either lost or forgotten their passwords, two (15%) had passwords that did not work and 1 (8%) was given a password for a different authority. The portal has a lost and forgotten password facility that sends out forgotten passwords by email but this is only available if users know their username. One person commented that as usernames and passwords are initially identical, if one is forgotten it makes it difficult to retrieve the other.

Only 14 (14%) of the 103 respondents were aware that a second password was required to access some of the portal’s facilities such as uploading resources to the portal or authoring the calendar and liaison group database. The purpose and function of the authorship password was explained to respondents and they were then asked if they felt the requirement for a second password discouraged use of these facilities. Opinion was split in that 52 (50%) thought it would discourage use and 45 (44%) thought it would not. Six (6%) were unsure. Some went on to say that it was not the requirement for a second password itself that discouraged use but a lack of awareness that such facilities existed or that a password was required. When asked if they would prefer one password to access all the portal’s facilities 81 (79%) said they would and 20 (19%) said that they would not, as they felt two passwords were necessary for security reasons. Two (2%) were unsure.

4.4.4 Awareness
The respondents were asked how they first became aware of the portal. Thirty (28%) were told about it by either a colleague or their manager. Fifteen (15%) had attended a conference, meeting or training course where the portal was highlighted. Thirteen (13%) had been aware of the portal since its inception in October 2001 and 11 (11%) thought they had read about the portal in an issue of the LAU newsletter. Nine (9%) learned of the portal via an announcement at work and 5 (5%) reported having logged on after attending one of the roll-out events. Five (5%) were informed by their liaison group and 4 (4%) learnt about it from a portal mail-shot. Three (3%) were aware of the portal but could not remember how they were alerted to its existence and 7 (7%) respondents reported other ways including through a web link, the portal newsletter, journal articles or usage questionnaire.
Figure 76 How respondents became aware of the portal (n=102)

Nineteen (18%) of the 103 respondents reported that they had experienced difficulty in finding the portal address at some stage.

4.4.5 Awareness of Purpose

Respondents were asked if they were aware of the reasons why the portal had been established. Eighty-four (82%) confirmed that they were aware why the portal had been established and were able to identify 147 reasons shown in Figure 77. Thirty (21%) thought the portal was established to provide a means by which information and resources such as best/good practice and guidance could be shared between LAs. A large proportion (26; 18%) felt its main purpose centred around training, as its name suggests, and was there to provide training materials, details of training events and to coordinate training resources. Twenty-four (16%) gave the purpose as encouraging and enhancing communication and liaison between LAs and between HSE and LAs. Twenty-two (15%) felt that the portal was established to encourage and ensure consistency amongst LAs in relation to training and enforcement. Eleven (10%) saw the portal as an information resource. Eight (7%) said the portal provided priority programme/topic inspection information and 3 (2%) thought it existed to provide and store topic inspection data. Three (2%) felt it assisted and encouraged partnership working and 2 (1%) viewed it as a health and safety discussion forum, rather like EHC net. Other reasons (4; 3%) were that it ensured competency, enabled officers to see what other LAs were doing/had done and that it kept officers up to date and saved them time.
To further assess user understanding of the portal and its intended purpose respondents were asked what motivated them to log on to the portal. One hundred and thirty reasons were given by 103 respondents. The vast majority of responses (47; 37%) indicated that users logged on to the portal to find specific information. For example, if a problem was encountered which users could not solve or if they lacked knowledge in a certain area. Some had been told by another colleague that a particular resource was available on the portal. Twenty-one (16%) went on to keep up to date or to refresh their knowledge. Several (13; 10%) used the portal specifically for seeking topic inspection information. Eleven (8%) accessed the portal for clarification on operational issues or to ensure they were adopting a consistent approach and a further 11 (8%) accessed the portal to see what other LAs were doing/had done. Nine (7%) were looking for information on training or to put together training presentations and 8 (6%) to prepare for inspections. Other reasons (10; 7%) were to look for HSE guidance (3), to input topic inspection data (3), two were prompted to go on by a mail shot and one logged on regularly as matter of routine.
4.4.6 Usability: Structure and layout, navigation, locating content and aesthetics
The opinions of the respondents were sought in relation to certain aspects of the portal design namely, its structure and layout, ease of navigation and locating information and the look of the portal. The findings of this series of questions are displayed in Figure 79.

Seventy-seven (73%) of the 103 participants responded positively to the statement, ‘I find the structure of the portal user friendly.’ Of these, 15 (15%) strongly agreed and 59 (58%) agreed. Just 6 (6%) responded negatively by disagreeing with the statement. No one strongly disagreed. Twenty-two (21%) respondents expressed no opinion. The majority of users therefore found the structure of the portal user friendly.

In relation to ease of navigation there were 77 (76%) positive response and 14 (15%) of those strongly agreed with the statement, ‘I find navigating the portal logical’. Just three respondents disagreed (3%) and no one strongly disagreed. Twenty-two respondents (21%) had no opinion.

Respondents were asked to quantify their satisfaction about the ease of locating specific information on the portal. Sixty-three (62%) agreed they could easily locate information on the portal, which included 10 (10%) who strongly agreed.

Respondents were asked to state their level of agreement with the statement, ‘I like the appearance of the portal.’ The majority (77; 75%) responded positively by either agreeing (61; 60%) or strongly agreeing (16; 16%). Twenty-two (21%) had no opinion, two disagreed and just one strongly disagreed.

4.4.7 Usability: Search engine and Downloading
When users were asked if they found the search engine effective most agreed that they did (54; 53%) with 7 (7%) agreeing strongly. Only 5 (5%) disagreed, one strongly, and 43 (42%) expressed no opinion.
The respondents were also asked if they could download information resources from the portal without difficulty. Most stated that they could (76; 74%) and just 6 (6%) had experienced difficulties when downloading. Twenty-one (20%) had no opinion.

4.4.8 Usability: Summary satisfaction scores
A mean score for the structure, navigation, locating content, aesthetics, search engine and downloading was calculated based on the satisfaction ratings awarded by the respondents, with 'strongly disagree' scoring one and 'strongly agree' scoring five (see Table 17). All the scores were more than 3 indicating that these aspects of the portal’s usability were generally regarded as satisfactory by the users. The least positive score was for the search engine.

Table 17 Mean scores for usability features of the portal (n=103)

<table>
<thead>
<tr>
<th>Portal features</th>
<th>Mean Score (n=103)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>3.8</td>
</tr>
<tr>
<td>Navigation</td>
<td>3.9</td>
</tr>
<tr>
<td>Locating content</td>
<td>3.6</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>3.9</td>
</tr>
<tr>
<td>Search engine</td>
<td>3.5</td>
</tr>
<tr>
<td>Downloading</td>
<td>3.9</td>
</tr>
</tbody>
</table>

4.4.9 Usability: Resolving difficulties
When asked if they had experienced any difficulties when using the portal, 20 (19%) of the 103 respondents said they had experienced some difficulties. Eighty-two (80%) said they had not and 1 (1%) did not know if he or she had or had not. The 20 who had experienced problems were then asked how the problems were addressed. The majority 15 (75%) solved the problem themselves, 3 (15%) were still experiencing difficulties, 1 (5%) contacted the portal administrator for assistance and 1 (5%) asked a colleague. Problems were encountered when users searched for specific information. They either found that the search engine was ineffective or the terminology used to describe an area and what information it contained was unclear e.g. Subsites. Five of the respondents, who solved the problem themselves, found navigating the portal difficult at first but stated that they had no problems once they became more familiar with its layout.

Figure 80 How problems with portal navigation were resolved (n=20)
4.4.10 Usability: Training
Just 39 of the respondents (38%) reported having had some training on the portal. Most (31; 79%) had received training provided by the Research Project team at various events where the portal was publicised. Six (15%) had received in-house training and one had referred to the portal user guide.

4.4.11 Usability: Content
The reliability of content on the portal was found to be acceptable by the majority of users. Seventy-eight (76%) respondents agreed that knowledge and information that was shared via the portal was generally reliable; 10 (10%) agreed strongly. Twenty-five (24%) expressed no opinion.

Only 29 (28%) of the 103 respondents thought there was content missing from the portal, 65 (63%) considered there to be adequate content and 9 (9%) were unsure. Twenty-three suggestions were given for new content. Most (10; 44%)) concluded that the portal had a good variety of content. However they also felt that there needed to be more content particularly in relation to LA contributions – more shared experiences, topic inspection information, details of training events and more information on liaison groups such as agendas. Four (17%) wanted more input from the HSE in relation to consistency of enforcement and the training their inspectors receive. Three (13%) suggested that a directory of persons with specialist knowledge would be helpful and 2 (9%) thought information on lead authority partnership schemes would be good. Others (4; 17%) suggested content should include notices served in relation to priority programme topics, more links, visual information and a list of the top ten most viewed items.

![Figure 81 Suggestions for additional content (n=23)](image)

4.4.12 Usability: Features and functions
Respondents were asked which aspects of the HEA portal they had found the most useful. One hundred and six comments were noted. The majority (38; 36%) felt it was a good resource for priority programme/topic inspection information. Secondly it was seen as a tool for information and knowledge sharing between HSE and LAs and between LAs (34; 32%). Thirdly it was considered to be a resource for training materials (20; 19%). Ten (9%) felt its most useful aspect was that it provided guidance, e.g. accident case studies, and that it was
good when ‘cherry picking’ information. Others (4; 4%) commented that the portal’s strengths were in the layout of the portal itself and its ease of use.

Respondents were also asked about the aspects of the portal they found the least useful. Fifty-eight comments were noted. The majority (27; 47%) thought the discussion forum was the least useful element as it overlapped with EHC net and was not used enough. Some thought it had potential but needed to be used by more officers. The calendar was not found to be useful by 10 (17%) of respondents as it contained too little information. Similar comments were made in relation to the liaison group database (8; 14%). The training area was also mentioned as being one of the least useful aspects by 8 (14%) of respondents who considered it to be out of date and sparsely populated. Three (5%) comments related to the topic inspection entry facility which was considered to be unnecessary and the remaining 2 (3%) found the subsites area the least useful.
4.4.13 Usability of different areas of the portal

The respondents were asked if they were familiar with the main areas of the portal and, if they were, they were then asked to rate its usefulness on a scale from one to five. Table 18 below summaries the proportion of respondents who were familiar with the specific area and the mean score awarded based on the five point rating scale where one represents 'not at all useful' and five is 'very useful'.

Ninety (87%) of the respondents were familiar with the priority programme area of the portal. Of these, 78 (87%) rated the section highly by giving it a score of either five (47; 53%) or four (31; 34%). Just 3 (3%) rated it poorly by giving a score of either one or two and 9 (10%) gave a neutral score of three.

Seventy-two (70%) of the respondents were familiar with the practice and procedures area of the portal. The ratings were mainly positive with 52 (73%) giving a score of four (33; 46%) or five (19; 27%) and just 6 (9%) giving a score of one (1%) or 2 (8%). Thirteen (18%) gave a more neutral score of three.

The training area of the portal was recognised by 76 (74%) of the respondents and the majority (28; 37%) of these found it to be useful or very useful (19; 25%). Nineteen (25%) gave a neutral score of three and just 10 (13%) gave negative scores of one (4%) or two (9%).

Sixty-two (60%) of respondents were familiar with the discussion board and the majority felt it was not very useful by rating it either one (5; 8%) or two (24; 39%). Eighteen (29%) gave a neutral score of three and 15 had found it useful by scoring either four (12; 19%) or five (5; 3%).

Just 45 (44%) of respondents knew about the calendar and of these, most had found it unhelpful. The majority (18; 40%) gave a neutral score of three, 14 (31%) gave a two and 10 (22%) gave the lowest score of one. Only 7 (7%) had found it useful by scoring either four (5%; 19%) or five (2%).

Around half of the respondents (53; 51%) were familiar with the liaison group database area of the portal. The majority (23; 44%) were undecided about its usefulness. The other responses were mainly negative scores of two (15; 29%) and one (2; 4%). Ten (19%) did find it useful and gave it a score of four and 2 (4%) rated it very useful.

Table 18 Familiarity and usefulness of portal areas

<table>
<thead>
<tr>
<th>Portal Area</th>
<th>% of users who are familiar with the area (n=103)</th>
<th>Mean usefulness score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Programmes</td>
<td>87</td>
<td>4.4</td>
</tr>
<tr>
<td>Practice and Procedures</td>
<td>70</td>
<td>3.9</td>
</tr>
<tr>
<td>Training</td>
<td>74</td>
<td>3.7</td>
</tr>
<tr>
<td>Discussion Board</td>
<td>60</td>
<td>2.7</td>
</tr>
<tr>
<td>Calendar</td>
<td>43</td>
<td>2.3</td>
</tr>
<tr>
<td>Liaison Group Database</td>
<td>51</td>
<td>2.9</td>
</tr>
</tbody>
</table>

The most useful part of the portal was the Priority Programme area, with a mean of 4.4, followed by the Practice and Procedures area with a mean of 3.9. The training area was also regard as useful achieving a score of 3.7. A score higher than 3 indicates that, in general, the area is regarded as useful. Thus the discussion board, liaison group database and the calendar
were not regarded as useful by those who were familiar with them. In addition there were significant numbers of the respondents who were not familiar with these aspects of the portal.

![Figure 84 Mean scores for usefulness of different area of the portal](image)

**4.4.14 Usability: advantages and disadvantages**

Eighty-eight (85%) respondents thought the portal did have advantages over other available health and safety information resources and 9 (9%) felt it did not. Six (6%) were unsure. One hundred advantages were given in total and these were categorised into 9 major themes.

The biggest advantage identified by 43 (43%) of respondents was that it was specifically designed for local authority health and safety enforcement officers and was tailored to their needs; giving practical advice for everyday problems faced by enforcement officers. Users felt that they did not have to search through more generic environmental health resources to find health and safety information. Thirteen (13%) liked the interactive element of the portal and the facility for LAs to share information and experiences via the portal. Twelve (12%) found the portal easier to navigate than other portals and thought they could access and download relevant information quicker and more easily. Some 8 (8%) thought the accessibility of the portal was an advantage as all LA health and safety officers could use it. Six (6%) considered the content on the portal to be current, particularly in relation to topic inspection news and information and 5 (5%) stated that it was the only resource that focused specifically on topic inspections. Five (5%) regarded the HSE’s involvement in the portal as an advantage. Four (4%) found that because the portal was secure users could be more open and honest, particularly on the discussion board, and it ensured trust in the portal. Other advantages (6; 6%) noted were that it saved officers’ time (2), it acted as a benchmark and aided consistency (2) and that it was free of charge (2).
Forty-two (41%) of the 103 respondents believed the portal had some disadvantages over other information resources and 56 (54%) felt it had none. Five (5%) were unsure. Thirty-seven disadvantages were mentioned. The majority (10; 26%) felt there was inadequate content on the portal or insufficient variety when compared to other resources such as technical indexes. Two thought the content would develop in time. Six (16%) respondents stated that the portal would benefit if more LAs and officers used it. They believed this would lead to a wider variety of information and shared experiences/knowledge. It was suggested that the portal should be publicised more to make users aware of its existence and functionality. Other disadvantages noted were that it did not link well with other portals and therefore existed in isolation (5; 14%) and that the content was sometimes inaccurate as it was not validated or improved in any way (4;11%). Accessibility was highlighted as a disadvantage by some (4; 11%) due to problems experienced logging on to the portal and because it was inaccessible to trade organisations. Four respondents (11%) found the portal more complicated to navigate than other portals.
4.4.15 Usability: Additional functions
Twenty-four (23%) respondents thought that the portal had the scope to perform other functions, 69 (67%) felt it was acceptable as it was and 10 (10%) did not know if it could or not. Of these most (23%; 4) suggested having more links to the HSE intranet and to e-coshh. Three stated that they would like to receive more mail-shots about latest portal additions and training events and two wanted to have the facility to compare their local authority to others in relation to LAE1 returns and performance indicators to facilitate benchmarking. Two felt that all the information on the portal should be validated or endorsed by HSE or HELA and could incorporate a rating system. Other suggestions included the facility for officers to have an individual training matrix, information on joint working and how partnerships were developing and to simply encourage more users, which would enable the portal to expand.

4.4.16 Culture
Twenty-four (23%) of the 103 respondents said there were procedures in place in their authority to enable the retention of knowledge and ‘know-how’ of officers who leave. These were described as cascade training, or having a central place to store training course notes so others could view them (9), having set policies and procedures in place to follow as well as quality management systems (6) and informal exchanges of knowledge (4). Other methods to capture knowledge that were identified were joint inspections, particularly if an officer was leaving (3) and being part of the investors in people scheme (2).

Ninety-six (94%) respondents said they would be willing to share information via the portal, 5 (5%) felt they would not and 1 (1%) was unsure. Of the 5 respondents who would not, 2 said it was due to time constraints, 2 due to a lack of confidence and 1 did not give a reason.

Forty seven (46%) were clear about the type of information that could be shared on the portal but a similar proportion (46; 45%) said they felt uncertain about the type of information it was acceptable to share via the portal. Ten (9%) reported that they didn’t know whether they were clear or not.
Seventy-nine (75%) respondents said their workload was flexible enough to allow them to use the portal, 26 (25%) said it was not.

Respondents were asked to state their level of agreement with four statements concerning the knowledge sharing culture within their own authority and between other authorities.

When asked if the culture in their authority provided the opportunity for the communication of ideas, knowledge and experiences among officers, the vast majority (93; 90%) felt it did and only 4 (4 %) thought that the culture did not support knowledge sharing. Six (6%) were undecided. Respondents were then asked if they felt that individuals in their authority tended not to disseminate knowledge. Most respondents considered that their colleagues were willing to share knowledge as 66 (64%) disagreed with the statement and 12 (12%) of these strongly disagreed. However, almost a quarter (22; 21%) did believe that some individuals do not disseminate knowledge and 14 (14%) were undecided. Most respondents (87; 84%) did not believe that individuals were reluctant to share knowledge because they felt it gave them a competitive advantage over others and just 7 (7%) did. No one strongly agreed with the statement and 9 (9%) were undecided.

When asked about the dissemination of knowledge between individual authorities, 15 (15%) agreed that some authorities tended not to disseminate knowledge and were reluctant to share it with other authorities, with 1 (1%) strongly agreeing with the statement. The majority of respondents disagreed (60; 58%) and 8 (8%) strongly disagreed. Twenty-eight (27%) respondents were undecided.

Mean scores (based on a one to five rating) for each of these questions were computed on the basis that the more positive the response towards knowledge sharing the higher the score awarded, ie strongly disagreeing with the statement ‘individuals are reluctant to share knowledge because they feel it gives them a competitive advantage over others’ received a score of 5.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>The culture within my LA provides the opportunity for the communication of ideas, knowledge and experience among officers.</td>
<td>4.2</td>
</tr>
<tr>
<td>Within my authority individuals tend to disseminate knowledge they acquire.</td>
<td>3.5</td>
</tr>
<tr>
<td>Individuals are not reluctant to share their knowledge because they feel it gives them a competitive advantage over others.</td>
<td>3.9</td>
</tr>
<tr>
<td>Individual authorities tend to disseminate information they acquire and are not reluctant to share it with other authorities.</td>
<td>3.5</td>
</tr>
</tbody>
</table>

4.4.17 Achievement of portal objectives

Respondents were asked to what extent they felt the portal had achieved the following six objectives, which were drawn from the aims of the phase 3 project:

**Objective 1:** Improved communications and information flow between LAs, specifically on priority programme topics.

**Objective 2:** Improved communications and information flow between LAs and HSE specifically on priority programme topics.
Objective 3: Improved communications and information flow between LAs specifically on training.

Objective 4: Improve communications and information flow between LAs and HSE specifically on training.

Objective 5: to support training needs which arose from the priority programme initiative.

Objective 6: to encourage and enable knowledge sharing between LAs on general health and safety enforcement.

Four of the objectives related to the improvement of communications and information flow between LAs and between LAs and HSE specifically on priority programme topics and training. The remaining two were support for training needs arising from the PP initiative and support for knowledge sharing. Table 20 displays the extent to which respondents indicated their agreement with statements that the portal had achieved each of these objectives.

![Table 20: Achievement of objectives (n = 103)]

<table>
<thead>
<tr>
<th>Objective no.</th>
<th>% Strongly disagree</th>
<th>% Disagree</th>
<th>% Neutral</th>
<th>% Agree</th>
<th>% Strongly Agree</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>8</td>
<td>18</td>
<td>63</td>
<td>11</td>
<td>3.8</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>11</td>
<td>29</td>
<td>52</td>
<td>8</td>
<td>3.6</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>8</td>
<td>37</td>
<td>48</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>14</td>
<td>46</td>
<td>37</td>
<td>3</td>
<td>3.3</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>5</td>
<td>26</td>
<td>51</td>
<td>18</td>
<td>3.8</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>3</td>
<td>16.5</td>
<td>64</td>
<td>16.5</td>
<td>3.9</td>
</tr>
</tbody>
</table>

A mean score for each of these objectives was calculated based on one representing strong disagreement with the statement that the objective had been fulfilled and five representing strong agreement. All the mean scores were greater than three suggesting that respondents generally believed all the objectives had been met. Respondents felt that the portal was most successful in achieving its objective to encourage and enable knowledge sharing between LAs. Respondents also believed that the portal had improved communications and information flow between LAs, specifically on priority programme topics, but were less positive that the same had been achieved between LAs and the HSE. The objective to support training needs, which arose from the priority programme initiative, was also considered to have been achieved. The objectives to improve communications and information flow between LAs and LAs and HSE specifically on training were considered to have been met but scored lower than the other objectives.

4.5 NON USER SURVEY

Five hundred and sixty-three registered users who had not accessed the site on any occasion were identified, representing 30% of all registered site users. On the basis of the stratified sampling adopted for the user survey 42 of this group were randomly selected to take part in the non user survey.

When the 42 non user respondents were contacted to take part in the survey it was found that 17 were not currently working in health and safety enforcement within their authority. Five (29%) had left the authority altogether, 5 (29%) had changed their role and were no longer responsible for enforcing health and safety legislation, 2 (12%) were on long term sick leave.
and 3 (18%) had never worked in health and safety. One person had retired and one was on maternity leave. Thus none of these registered users had any reason to access the portal.

The remaining 25 were engaged in health and safety enforcement and they were questioned about their awareness of the portal’s existence; 22 (88%) were aware of the HELA Training portal and 3 (12%) were not. Sixteen (64%) respondents knew that they had a username and password for the portal but 9 (36%) were unaware.

The 25 respondents were asked to confirm that they had not logged on to the HELA Training portal. Nine (36%) claimed that they had logged on to the portal recently. Four of these had used a different password, either a colleague’s or an authorship password and five had logged on since the sample had been taken, largely as a result of the recent publicity about the portal. This left 16 true non users out of the initial sample of 42 (38%).

**4.5.1 Sample description**

Of the sixteen non users, 7 (43%) were EHOs, 3 (19%) were technicians, 3 (19%) were food safety officers, 2 (13%) were senior EHOs and 1 (6%) was a principal EHO as shown in Figure 87.

![Figure 87 Job titles of respondents (n=16)](image)

The majority of the non users ie 12 (75%) reported spending less than 25% of their time on health and safety enforcement. This could indicate that these respondents had less need of the portal as they did not spend a large proportion of their time on health and safety. Two (13%) spent 51-75% of their time, 1 (6%) spent 26-50% and 1 (6%) spent 76-100% of their time on health and safety enforcement.
The majority of respondents (9; 60%) had worked in health and safety for over ten years. Three (21%) had been working in health and safety for between one and three years, 2 (13%) for five to ten years and 1 (7%) for less than a year.

4.5.2 Reasons for not accessing the Portal

All 16 respondents had access to their own online PC at work. When asked why they had not logged on to the portal, 7 (44%) stated that the portal was not relevant to their needs. It has already been noted that 12 of the respondents reported spending less than 25% of their working time on health and safety enforcement (see section 4.5.1). Three (19%) reported that they were awaiting internal training on the portal before they started to use it and 3 (19%) stated that they had no time to use it. One (6%) claimed that he or she did not know that the portal existed and 1 (6%) considered that he or she had insufficient information about the portal to be motivated to use it.

**Figure 88** Time spent on health and safety enforcement (n=16)

**Figure 89** Reasons for not accessing the portal (n=16)
The non users were asked about the resources they currently used to access health and safety information. These were reported to be the HSE web portal (9; 34%) journals (4; 15%) and technical indexes (4; 15%). Colleagues were also seen as a source of information (3; 11%) as were codes of practice and guidance documents (2; 7%) and other Internet portals (2; 7%). Two (7%) reported that they did not access any resources and one consulted legal case studies.

![Figure 90 Alternative health and safety information sources (n=16)](image)

Respondents were asked if anyone else in their authority used the portal. Nine (56%) said that others did and 1 (6%) said that no one did. Six (38%) were unsure whether anyone did or not.

**4.5.3 Awareness of Purpose**

When asked if they were aware of the reasons why the portal had been established by the HSE, 10 (63%) said they were not and 6 (37%) reported that they were. The reasons suggested by 4 of the respondents related to the promotion of knowledge sharing and the other 2 considered the portal to have been established in order to disseminate information from HSE to LAs.

**4.5.4 Future use of the Portal**

Asked what would motivate them to log on to the portal most respondents (7; 46%) said they would log on to find specific information they knew was available there. Two (13%) felt they needed more portal information and 2 (13%) would use the portal to obtain advice and guidance on enforcement. One (7%) would log on if he or she could not find the information elsewhere, 1 (7%) would if their job involved more health and safety, 1 (7%) would log on to keep up to date with health and safety and 1 (7%) would if he or she had more time.
Finally, respondents were asked if they would access the portal in the future and all 16 said that they thought they would.

4.6 DISCUSSION OF FINAL EVALUATION FINDINGS

4.6.1 Portal usage
Portal usage significantly increased, in terms of the number of portal visits, unique users and unique authority users during the lifetime of the phase 3 project (see Table 21). The increase in the user numbers and LAs is of a similar order when compared over the two nine month periods of the project. In contrast the numbers of unique sessions increased at a higher rate suggesting that not only are there more users but also that those users visit the portal more frequently.

<table>
<thead>
<tr>
<th>Table 21 Summary of Portal Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Mean per month Sept 03 – May 04</td>
</tr>
<tr>
<td>Unique sessions</td>
</tr>
<tr>
<td>Users</td>
</tr>
<tr>
<td>LAs</td>
</tr>
</tbody>
</table>

Table 22 shows the relative popularity of selected areas of the portal. During phase 3 the priority programmes area was the most popular with 479 mean visits and 214 mean unique users per month. The practice and procedures area was also popular with 366 mean visits and 199 mean unique users per month. Both of these areas therefore accounted for a large proportion of visits to the portal and a significant proportion of the users. The least popular areas were the discussion board, with only 122 mean visits and the Liaison Group Database with a mean number of 101 visits. Only about a quarter of users are accessing these areas each month.
### Table 22 Summary of use of portal areas (mean per month Sept 03 – Feb 05)

<table>
<thead>
<tr>
<th>Portal Area</th>
<th>Mean visits</th>
<th>% of mean total visits</th>
<th>Mean users</th>
<th>% of mean users</th>
<th>Mean LAs</th>
<th>% of mean LAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Programmes</td>
<td>479</td>
<td>43</td>
<td>214</td>
<td>60</td>
<td>134</td>
<td>69</td>
</tr>
<tr>
<td>Practice and procedures</td>
<td>366</td>
<td>33</td>
<td>199</td>
<td>56</td>
<td>137</td>
<td>70</td>
</tr>
<tr>
<td>Discussion Board</td>
<td>122</td>
<td>11</td>
<td>89</td>
<td>25</td>
<td>54</td>
<td>27</td>
</tr>
<tr>
<td>Liaison Group Database</td>
<td>101</td>
<td>9</td>
<td>80</td>
<td>22</td>
<td>62</td>
<td>32</td>
</tr>
</tbody>
</table>

Analysis of the portal usage data suggests that users are most interested in areas where content can be accessed and downloaded ie documented procedures, checklists, case studies and policies etc as opposed to the more functional areas such as the calendar and discussion board. The process evaluation had established that the discussion board and liaison group database were under used. It was suggested that there was a lack of awareness of the discussion board and that an alternative discussion forum for the larger environmental health community (EHnet) had already established itself as the means by which virtual discussions took place. Some respondents noted the advantages of the HELA Training Co-ord’s superior functionality and its more specific remit and suggested that if usage were increased the portal may become the favoured discussion forum for LA based health and safety enforcement officers. The most recent traffic data showed a significant increase both in the number of visits to the discussion board and in the number of messages posted, which suggest the discussion board is increasing in popularity. The reason given for the poor usage of the liaison group database was that it lacked information and did not help officers 'do their job'. It was suggested that it could be more useful if further information about the activities of the liaison groups were added. It is important to note that linked to the liaison group database is a mail shot facility that enables the site administrators to contact those included in the database directly by email. Mail shots have been used successfully on several occasions since August 2004 to contact liaison groups in order to seek information for posting on the portal. Users do not have access to the mail shot facility and their use does not reflect this additional function.

The non user survey discovered that the portal may not be relevant to the needs of some of those presently registered on the portal and this explained why 40% of the non user sample had not logged onto the portal. A further 21% claimed that they had logged on, possibly using a colleague’s password. For the majority of the remaining 38%, who were registered users but had not logged on, health and safety enforcement was a minor part of their work. There were a small number of the non users (11% of the non user sample) who indicated they wanted further information about the portal and others (7%) who argued that they did not have time to use it. These findings suggest that lack of information about the portal may still be an issue for a small proportion of health and safety enforcement officers.

### 4.6.2 Access

Access to IT equipment did not appear to present any impediment to the portal’s use for either the user or non user groups. The majority (77%) of users have access to the portal both at work and at home. Ninety-nine per cent had their own PC on which they could download and save resources from the portal. There were download restrictions in place for almost a third of respondents but many were unclear as to the exact restrictions and reasoning behind them. This needs further investigation to assess whether or not it was a barrier to use. Certainly one of the key advantages the portal confers is to allow LAs to download information that they
can then adapt and use. Restrictions on downloading could detract from one of the key advantages the portal is seeking to deliver.

The present system for usernames and passwords proved to be satisfactory. Some users (7%) did use a colleague’s password as opposed to their own. This is itself is not a problem but may affect the portal monitoring and tracking data in terms of the number of unique users. The main reported difficulty was remembering usernames and passwords, this was identified in a study by the University of Hull, which found users already had too many Internet passwords to remember (Dolphin and Sherrat, 2003). In both the process and final evaluation users suggested that one user name and password per authority be issued rather than one for each individual officer. This would eliminate the need to update current user lists, particularly useful for authorities with a high turnover of staff, and increase the likelihood that users will remember the username and password. On the other hand, portal usage data would be less informative as the number of unique users would not be measured, only unique authorities.

Confusion over the email facility available to users who had forgotten their password still remained, as users were largely unaware that for the facility to function the user must have entered their email address on the portal. It was also pointed out that the system is only of use if you know your username and have forgotten your password, whereas officers have usually forgotten both, as they are largely identical. The usage of the facility is therefore questionable.

There was a lack of awareness of the additional permissions granted to each LA through the authorship password system, which enables LAs to directly upload information to the portal. Only 14% of users were aware of its existence. The process evaluation found that most users were either unsure how to post information, had no time to post it, or felt they had no information to post. Only two authorities had used the facility to upload content since the process evaluation although many others had provided information for posting by the site administrators. Both authorities used the facility only once and it may be necessary to investigate why they have not used it again. Fifty per cent of users also stated that the requirement to enter (and remember) another password would discourage them from using the facility but the other 50% said they would use it if they were aware of it. One option, favoured by 79% of respondents, may be to allow users access to the full range of facilities with only one password to lift the burden of multiple logins and to raise awareness. The evaluation established that security was not an issue for users as only one respondent had concerns relating to former employees gaining access to portal information.

4.6.3 Awareness
A lack of awareness of the existence of a portal leads to poor adoption (Centre for Electronic Governance 2003). The process evaluation of the HELA portal indicated the main reason for non use was because many enforcement officers were unaware of its existence, its role or its functionality. It was reported that many users had not seen the portal newsletter and it was recommended that email alerts and articles in EHN and other journals may help to raise its profile. Following the process evaluation regular update emails were sent out to users and liaison groups and the portal received publicity through the LAU newsletter. In addition the portal was publicised at a series of regional training events. The increased usage of the portal may be attributed to the increased publicity and therefore heighten awareness. The non user survey revealed that only a small proportion of health and safety enforcement officers remained unaware of the portal. Few respondents reported being made aware of the portal via web links. A lack of links between the portal and other web portals was given as a weakness by some users.
Only a small proportion of users experienced difficulty finding the web address although a more descriptive web address was requested due to the fact that the portal has now expanded beyond that of a training resource.

Davenport (1998) argues it is imperative for the objectives of a portal to be communicated effectively to its users. Eighty-two percent of respondents were aware of the purpose of the portal but various perceptions existed. When the perceptions were analysed sixty percent of responses related to KM functions, suggesting users viewed the portal as a KM tool rather than just another source of information. They spoke of the portal as a two-way system by which information and resources such as best/good practice, guidance and training could be shared and also as a means of communication both between LAs and between LAs and the HSE. They also saw the portal as encouraging joint and partnership working. In contrast, twenty-two percent of the responses indicated that the portal’s perceived purpose was as an information resource that enabled the HSE to disseminate information, particularly in relation to priority programme guidance and topic inspection data/trends. The remainder (18%) focused mainly on the portal’s capacity to aid consistency and also to act as a discussion forum. This suggested that whilst a majority of users may be clear about the ability of the portal to support KM others may not and further publicity to clarify this role may be needed.

When asked about their motivation to use the portal, most stated that it was to locate specific information, particularly in relation to topic inspection suggesting users perceived the portal as a resource from which to draw information. In contrast, no respondents said they logged on to the portal with a view to posting information, knowledge or experiences to share.

4.6.4 Usability
As the literature review ascertained, user satisfaction is the key to a successful portal. If users are satisfied with the portal then it follows that they will use it more often and will be more willing to adopt it as part of their work routine. Many different aspects of the portal affect user satisfaction but one of the main aspects is ease of use. If users find the portal difficult to use, or have alternative methods of finding and sharing information that are easier or more familiar, then they will not use the portal. The vast majority of users found the structure of the HELA Training Co-ord portal user friendly and the layout logical. Aesthetics are also an important part of making the portal user friendly. Seventy-seven percent of respondents said they liked the appearance of the portal. Approximately a fifth of respondents had experienced some difficulties when using the portal but 75% of them resolved these themselves and only a small number were still experiencing the difficulty.

Training for users on how to use the portal and its functions would clearly enable users to more easily locate information and take advantage of portal functions. Only 38% of users reported having had training on how to use the portal, mainly at the topic inspection roll out event. Users did not however find the portal difficult to use in terms of navigation, so perhaps the need for training in this area is low. Users would benefit from training on how to use the posting facility as in the process evaluation users identified lack of knowledge on how to post information as the main reason for not doing so.

Sullivan (2002) states that users would be satisfied if they could find what they need and trust what they find. Most of the portal users (62%) could locate content easily but fewer (53%) found the search engine to be effective. On the whole content was found to be relevant, particularly that relating to topic inspection and LA produced documents in the Practice and Procedures area. The majority reported being satisfied with the comprehensiveness of the
content but approximately a quarter of the respondents thought there was content missing. Those requesting more content generally commented that the selection of information was adequate but there needed to be more of it, particularly more information from LAs. There was a variety of content but in some areas not enough of it. Users requested more case studies, more notices in relation to topic inspection, more HSE input and more shared experiences. A small number also commented that information in the Training area was out of date and insufficient. In relation to the integrity of content, 76% of respondents found content to be accurate and reliable. The process evaluation had established that users are marginally more likely to use (and therefore trust) information posted by the HSE than that produced by other Local Authorities, but both are trusted sources.

Popularity of features was used in some portal evaluations to establish the most useful/valued aspects of the portal and therefore those that provide the greatest user satisfaction (Dolphin and Sherrat, 2003). The final evaluation sought details of the feature and functions respondents found most useful and also asked respondents to rate the usefulness of different areas of the portal. The findings to both these questions, as would be expected, were very similar. In terms of functions and features the majority found the priority programme information databases to be most useful. They also commented upon the usefulness of the portal as a tool to support information and knowledge sharing and as a resource for training materials. The ratings for the different areas established the priority programmes and practice and procedures areas as the most useful and the discussion board, calendar and liaison group’s database as the least useful. The monitoring and tracking data reported in section 3.3 reflects the opinions about usefulness expressed by the survey respondents. The similarly of the findings suggests the reliability of the survey data is sound.

A large proportion of the respondents (85%) believed the portal to have advantages over other available health and safety resources particularly because it was specifically designed for health and safety enforcement officers and that it facilitated knowledge sharing. The major disadvantages, identified by 41%, were that there was inadequate information on the portal and it did not link well with other web-based resources.

4.6.5 Culture
A knowledge friendly culture is an essential part of the KM process. Users must not feel inhibited or alienated in sharing knowledge. The final evaluation found that users were very willing to share information via the portal. The culture within individual authorities was reported to promote the opportunity for knowledge sharing and most stated that colleagues were willing to pass on information to each other although some respondents did believe there was reluctance by some individuals and LAs to share knowledge. The possibility that colleagues wanted to hoard knowledge to give them a competitive advantage was not widely accepted. The knowledge sharing culture between individual authorities was believed to be less open than within authorities but was still open enough to promote sharing.

A potential barrier to knowledge sharing had been highlighted in the process evaluation focus groups. Officers reported that they would be unwilling to share knowledge via the portal due to a lack of confidence in their own work; they feared criticism from colleagues if their knowledge was found to be inaccurate. This concern was not evident within the final evaluation although some of the respondents reported being unsure about the sort of information that it was acceptable to share via the portal. The change in attitude between the process and final evaluations may be related to increased familiarity with the portal as a KM tool and consequently users experiencing less trepidation about mounting their work on it. Nevertheless it is possible this fear may still exist and inhibit the sharing of knowledge. In
the short term it may be possible to allow officers to submit work anonymously or through their liaison group to give them more confidence.

Users who said they were unwilling to share information reported lack of time to develop information or to add it to the portal due to their workload as the reason. Presently there are no incentives in place to encourage officers to share knowledge though the portal and this may inhibit motivation to contribute to knowledge sharing. There may need to be changes within LAs so that the sharing of information is perceived as a valued component of officers’ work. The importance of knowledge sharing and its benefits may need to be promoted with Senior Officers to convince them of the advantages of knowledge sharing.

4.6.7 Achievement of Portal Objectives
The objectives can be grouped in four categories:

- Improving communications and information flow on the PP topics both between LAs and between LAs and HSE.
- Improving communications and information flow on training both between LAs and between LAs and HSE.
- Supporting training needs which arose from the Priority Programme initiative.
- Encouraging and enabling knowledge sharing between LAs on general health and safety enforcement.

Examination of the responses indicates that the portal is currently believed to have performed more effectively in some of its objectives than others. Improved communications and information flow on PP topics, particularly between LAs, was considered to be achieved by 74% and between LAs and the HSE by 60%. Fewer respondents believed the portal had achieved its objectives in relation to improved communications and information flow on training. However more respondents believed it to have achieved improved communications between LAs than between the HSE and LAs. The majority of users agreed that the objective to support training needs arising from the priority programmes initiative had been achieved. The objective that the greatest number of respondents believed had been achieved was to encourage and enable knowledge sharing between LAs on general health and safety matters.
5. CONCLUSIONS

The aims of the phase 3 project were to:

- Consolidate the operation of the portal in order to enable the improved communication facility between LAs, and between LAs and HSE, to ‘bed’ down and its advantages be realised in relation to both training coordination and the PP areas.

- Investigate the potential offered by the portal to assist in supporting training needs arising from the priority programme initiative.

- Explore the potential of the web portal to be further developed to support KM for LA based health and safety enforcement teams.

5.1 IMPROVED COMMUNICATIONS BETWEEN LAs AND LAs AND HSE ON TRAINING AND PRIORITY PROGRAMMES

The increased usage of the portal suggests that the portal has become an established route by which communications between LAs and LAs and HSE are conducted and the final evaluation indicated that respondents generally agreed with this assessment. However, the findings revealed that the respondents were less positive about the portal’s role in achieving improved communications between LAs and HSE than between LAs. The feedback indicated that the portal has established itself more firmly as a communication route for PP topics than as a vehicle for communications about training. Nevertheless, its support of training needs arising from the PP initiative was recognised by the majority as being achieved.

During the phase 3 project each of the training initiatives that had been supported or facilitated through the portal centred on PP topics, which received a much higher achievement rating than support for training in general. The portal’s role in supporting training was identified when respondents were asked about the purpose of the portal. The training support aspect was also highlighted as one of its useful functions. Indeed the portal was originally conceived for the purpose of coordinating and supporting LAs in training their health and safety enforcement officers. Moreover, there is clear evidence to demonstrate that the portal can be effective in supporting cascade training initiatives (see Chapter 3). Nevertheless, in the final evaluation some respondents commented on the need to increase the training resources content and to update some of the existing content. Clearly whilst LAs would appreciate a continuing role for the portal in training there is a need for further resources to be devoted to this aspect if user expectations are to be met.

The lower score for achievement in relation to communications between the HSE and LA may be connected to the branding of the portal and the way in which the source of resources are identified on it i.e in many cases it is not obvious that information that has been posted by the HSE does belong to them. The portal has been developed and managed by a research team that is distinct from the HSE and this arrangement has been well known to the LA based health and safety enforcement community. It is therefore possible that LA based health and safety enforcement officers perceive the HSE’s involvement as more distant than has been the case. The sourcing of HSE information has been ad hoc and through personal contacts and networks and it is possible that HSE resources that would be suitable for posting on the portal have not always been identified because the site administrators (the research team) are separate from the HSE. There is a need therefore to ensure that a more systematic approach is
adopted to identify HSE resources. The sourcing of resources from LAs is more systematic through the use of regular mail shots to all liaison groups and registered users.

5.2 THE ROLE OF THE PORTAL IN SUPPORTING TRAINING NEEDS

Several conclusions can be drawn from the in-depth evaluation of the role of the portal in supporting training needs associated with the introduction of the MAC.

The use of supported cascade training appeared to be very successful in terms of achieving the defined training objectives. In addition the vast majority of the facilitators had cascaded training or intended to do so and at the time of the evaluation (February 2005) an additional 300 officers had received the training. The feedback from them was generally very positive.

The cascade training initiative was supported by facilitator training and a comprehensive toolkit that had been developed to reflect LA enforcement activities. The toolkit was made available via the portal and consisted of PowerPoint presentations and video exercises. The practical video exercises and the participative nature of the session were seen as its key strengths. Facilitators reported no difficulties in preparing or delivering the sessions and expressed a high level of satisfaction with the toolkit; its availability on the portal was seen as an asset because it ensured its accessibility, saved time and promoted a consistent approach to the subject.

The facilitators appreciated the advantages of cascade training in terms of efficient use of resources, consistent approach and local availability. They did, however, highlight that the time input needed from facilitators is often not allowed for within their normal work routines. Unless addressed this could be a serious impediment to cascade training being adopted more widely since the burden is falling personally on a small number of individuals. In addition the need for support for facilitators (e.g., a Help line) so that queries that were raised in training session could be followed up with experts was identified.

Overall this initiative was successful. It identified a willingness on the part of LA based health and safety enforcement officers to adopt supported cascade training more widely if it is supported in a similar way and at the same level. It should be appreciated that some training objectives may not lend themselves to the training techniques adopted in this initiative.

5.3 THE POTENTIAL OF THE WEB PORTAL TO BE FURTHER DEVELOPED TO SUPPORT KM FOR LA BASED HEALTH AND SAFETY ENFORCEMENT TEAMS

The literature review identified certain critical components to the success of a knowledge portal namely access, awareness, usability and culture.

The findings suggest that access to the portal is satisfactory and no hardware constraints or barriers were identified. Some limitations on downloading were encountered and further investigations may need to be undertaken to assess whether this is a serious impediment to the portal’s usage. The existing username and password facility was found to be satisfactory but it was suggested that it could be simplified and improved by issuing one password per authority which would reduce the need for updating current user lists. This would also lessen the likelihood that usernames and passwords are lost or forgotten by individuals. Many users were unaware of the authorship facility, which allows users to post information to the portal, and the need for another password was believed to potentially dissuade users from using it. It
may therefore be necessary to allow users to access all portal facilities using a single password.

Awareness of the existence of the portal has significantly increased since the process evaluation was carried out and no longer appeared to be a constraint. This is an important development because lack of awareness has, since the portal’s inception, been perceived by the health and safety enforcement community to be one of the most significant barriers to its widespread adoption. A lack of awareness of certain features and their functionality does still exist, particularly the discussion board, calendar, liaison group database and the facility to post information. Awareness may be increased by publishing articles in Environmental Health News (EHN) and other journals, increasing the links from other relevant portals, sending out regular email updates and continuing with articles in the LAU newsletter. Emphasis should be placed on raising awareness of each of these facilities since they provide functions and information that may not be as readily available in other forms, for example, the discussion board is archived and potentially can gather knowledge that previously had only been in tacit form. These features are the ones that also rely most heavily upon LA and HSE ongoing and continued input.

The phase 3 evaluation findings suggested that the portal continues to be used primarily to draw down information, but rarely to post it. The phase 2 evaluation also reached the same conclusions (Ford and Green, 2004). Nevertheless, most users were aware that the portal enabled the sharing of knowledge and believed it to be a useful feature. Unfortunately it appears that few users are sufficiently motivated to post information or even to offer it for posting. This will be discussed more fully below.

The majority of the portal users were satisfied with the portal aesthetics and structure ie front end look and feel was acceptable. Users experienced few problems in finding specific information but the search engine was not as effective as it could be. Some users reported finding the taxonomies confusing as they did not clearly describe what kind of content was available within each area. Conversely others identified one of the advantages of the portal to be its ease of navigation, which enabled them to access and download information speedily. The taxonomies may need to be reviewed and more accurate descriptions provided in some areas. The technological infrastructure of the existing portal allows site administrators to change the taxonomies as and when needed without the need for further software programming.

Few users had received training and yet they still managed to navigate the portal without difficulty. The portal posting facility, however, was not understood and users would therefore benefit from training in this aspect. This would also raise awareness of its existence and go some way to improving the amount of content on the portal.

The content itself was largely regarded as trusted and accurate and the variety and range of content was praised. However, a recurring theme within the evaluation was the need to increase the critical mass of the content and respondents particularly identified the need for more shared experiences, LA produced guidance and HSE input. It was also suggested that the training content should be updated and extended.

The most popular and valued features of the portal were the areas from which guidance documents etc could be downloaded, namely the priority programme and practice and procedures areas. The discussion board, calendar and liaison groups’ database were regarded as least useful and there is a need to determine whether they should be retained. To be successful both the discussion board and calendar require ongoing, regular and sustained
input from LAs and HSE. A web-based forum through which the health and safety enforcement community can discuss issues was established before the introduction of the portal and is cited as one of the reasons why the discussion board is poorly used. It serves the wider environmental health community, is not linked with the HSE and its functionality is less sophisticated, for example, discussions are not archived in the same way. Therefore the portal’s discussion board does offer some advantages but whether these are sufficient to enable it to become the main forum for virtual health and safety enforcement discussion is debatable. The calendar itself is unique since there is no other web-based calendar facility for this community but its lack of success results from the reluctance of event organisers etc to offer information with which to populate it. Efforts to encourage organisers to alert the site administrators to forthcoming events are necessary if the calendar is to be retained.

Responses to questions seeking the attitudes of users towards knowledge sharing were positive and the vast majority of respondents reported a willingness to share information through the portal indicating few attitudinal barriers existed. Respondents believed their own LAs provided opportunities for the sharing of knowledge between officers although there was some evidence that particular individuals and LAs are suspected of being reluctant to share knowledge. The positive attitude to knowledge sharing expressed in the survey has yet to manifest itself in action since only a small number of LAs and liaison groups have volunteered information for the portal. The process evaluation suggested that one barrier to knowledge sharing may be attributed to officers' lack of confidence in their own expertise and concern that colleagues might be overly critical of information they had posted to the portal. To overcome this problem users may be persuaded to submit information anonymously or preferably via liaison groups. Others identified a lack of time as a barrier to offering information to the portal.

A knowledge sharing culture to which senior management are committed must exist if KM is to be successfully undertaken. The development of the portal has been driven and informed by officers working at operational level. There has been little direct engagement with the Heads of Environmental Health services to alert them to the development of the KM facet of the portal and its potential advantages. Consequently whilst officers are positive towards the idea of knowledge sharing it is unlikely that any incentives or motivators exist within individual workplaces that will encourage users to spend time or effort providing information for the portal. It may be necessary for initiatives to be undertaken to influence the Heads of Service in order to encourage them to view their units as part of a wider health and safety enforcement knowledge community through which the sharing and dissemination of knowledge can occur. This would reflect and further reinforce the partnership approach that is currently ongoing.

The evaluation also sought to examine the extent to which the portal is capable of supporting the KM cycle of knowledge capture, development, sharing and utilisation. The portal has demonstrated its technological potential for knowledge capture and it has been designed so that no specialist knowledge is needed in order to post information to it. The evaluation suggests that in certain areas the portal has been successful in capturing knowledge, particularly in the priority programmes and practice and procedures areas, which were rated very highly by its users. Clearly the critical mass of content needs to be increased and therefore the amount of information being volunteered both from LAs and the HSE needs to be improved. Indeed the communication and information flow between HSE and LAs was not rated as highly as that between LAs which suggests that users would want the HSE to increase their input into the portal. The authorship rights given to each authority are not being used and further attempts to encourage LAs to do so are recommended. There is no established system for seeking information from the HSE. It has tended to occur on the basis
of HSE personnel having knowledge of the portal and therefore offering information or by the site administrators making personal contacts with HSE officers. Data capture for the more interactive and real time components of the portal, namely the calendar and discussion board, has presented challenges and ways of improving this must be sought if they are to be retained as a valued component of the portal.

The structure of the portal has been designed to organise information in a way that is understandable to health and safety enforcement officers and reflects their changing priorities. Taxonomies have been developed which some users found helpful but others did not. Further work to ensure that the organisation of the information is user friendly may need to be undertaken perhaps via a user group.

The user data indicated that a large proportion of LAs are now using the site suggesting that the information captured there is being more widely disseminated. In addition the final evaluation established willingness to share information through the portal and more than half of the respondents commented on it being a good resource and or a tool for information and knowledge sharing. The challenge in terms of knowledge sharing lies, as already discussed, in ensuring that sufficient knowledge is captured so that users deem it worthwhile visiting the portal. Efforts to capitalise on the positive attitudes to knowledge sharing so that they are translated into practice should be a priority.

The value of KM and the potential opportunities and advantages accruing from LAs and HSE systematically sharing knowledge and ‘know how’ may need to be publicised and promoted with Heads of Environmental Health Service. Awareness of the ethos of the portal and its benefits may encourage LAs to integrate the KM facility of the portal more fully within their working processes. LA managers may need to consider ways in which officers can be motivated to share information that they have developed within their LAs.

The final aspect of the knowledge cycle is knowledge utilisation. The increased usage of the portal would suggest that users are able and willing to utilise the information they find there. Responses indicated that most users thought the information was reliable and were willing to use information from other LAs. More research may need to be undertaken to determine the extent to which information downloaded from the portal is utilised to improve and inform practice and to develop new knowledge.

Clearly the portal can support the knowledge cycle but organisational and cultural aspects of the process particularly the future role, input and commitment of the HSE and LAs to its continuation and development will need to be addressed.

5.4 RECOMMENDATIONS

The following recommendations are suggested:

- The HSE role and contribution to the management and development of the portal and its contents is transparent and clearly publicised.
- Systematic and routine processes for collecting information suitable for posting on the portal from the HSE are introduced.
- The use of mail shots to LAs and Liaison Groups to encourage volunteering of material for posting on the portal is continued on a routine basis.
• The use of incentives to encourage LAs to volunteer information for the portal is considered e.g. the introduction of an annual award for the LA/individual making the most positive contribution to the portal.

• The underlying ethos and value of the portal in promoting knowledge sharing between LAs is publicised to LA Heads of Environmental Health Services and their support sought in order to encourage LA based staff to make continuing contributions to it.

• Efforts to increase awareness of the value of the discussion board, calendar and liaison group are undertaken in order to increase the information contained there.

• A user group is established to consider the simplification of the password system, the ways in which the use of the posting facility can be encouraged and the suitability and user friendliness of the existing taxonomies.

• The extent of the limitations on downloading in LAs is explored to assess the likelihood of this being an impediment to the continuing use of the portal.

• The value placed on the portal’s ability to support training for LA based health and safety enforcement officers is recognised and further training material for the portal is developed.

• The development of further supported cascade training initiatives utilising the model developed and evaluated in this research.
REFERENCES


The purpose of this questionnaire is to ascertain your views about the HELA Training Co-ordination website and to gather information about your experience of site use.

**Frequency and Type of Use**

1. Please state your job title.  
   (please tick as appropriate)

   - Technician/Technical Officer  
   - Environmental Health Officer  
   - Senior Environmental Health Officer  
   - Principal Environmental Health Officer/Team Leader  
   - Student Environmental Health Officer  
   - Other (please specify)  

2. Do you use the Internet on a general basis?:  
   (please tick as appropriate)

   - At home  
   - At work  
   - At work and home  
   - Do not use the Internet

3. Have you accessed the HELA Training Coordination website?  
   (please tick as appropriate)

   - Yes  
   - No

   If you ticked ‘Yes’, please continue with question 4, if you ticked ‘No’ please go to Question 36.

4. How often do you access the site?  
   (please tick as appropriate)

   - Daily  
   - Weekly  
   - Fortnightly  
   - Monthly  
   - Less than once a month
5. Are there any reasons why you do not access the site more regularly?

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

6. Have you experienced any difficulties accessing the site?  
(please tick as appropriate)

Yes  [ ]  No  [ ]

If you ticked ‘Yes’, please provide details.
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

7. When seeking information, have you found the structure of the website user friendly?  
(please tick as appropriate)

Yes  [ ]  No  [ ]

Practice and Procedures Section

8. Have you accessed the new local authority Practice and Procedures section of the site?  
(please tick as appropriate)

Yes  [ ]  No  [ ]

If you ticked ‘No’ go to question 11

9. Please rate the usefulness of the Practice and Procedures section on a scale of 1 to 5, with 1 being ‘not very useful’ and 5 being ‘very useful’. 
(please circle as appropriate)

Not Very Useful  [ ]  1  2  3  4  5 Very Useful

10. If you have answered 1 or 2 please state why.

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________
11. Please state how likely you are to use information/guidance/know-how available on the site that has been produced by other local authorities, on a scale of 1 to 5 with 1 being ‘highly unlikely’ and 5 being ‘highly likely’.
(please circle as appropriate)

Highly Unlikely  1  2  3  4  5  Highly Likely

12. Please state how likely you are to use information/guidance/know-how available on the site that has been produced by HSE, on a scale of 1 to 5, with 1 being ‘highly unlikely’ and 5 being ‘highly likely’.
(please circle as appropriate)

Highly Unlikely  1  2  3  4  5  Highly Likely

13. Please rate to what extent you think local authorities are willing to share internally developed information/guidance/known-how, on a scale of 1 to 5, with 1 being ‘very unwilling’ and 5 being ‘very willing’.
(please circle as appropriate)

Very Unwilling  1  2  3  4  5  Very Willing

Discussion Board

14. Have you used the discussion board facility?
(please tick as appropriate)

Yes  No

If you ticked ‘No’ go to question 16

15. Please rate the usefulness of the discussion board on a scale of 1-5, with 1 being ‘not very useful’ and 5 being ‘very useful’.
(please circle as appropriate)

Not Very Useful  1  2  3  4  5  Very Useful

If you answered 1 or 2 please state why.

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

115
16. Why do you think the use of the discussion board by Local Authority based enforcement officers is limited?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

17. If the discussion boards were to hold a debate around a different subject each month, would you participate? (please tick as appropriate)

Yes [ ] No [ ]

If yes, which topics would interest you?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

18. Would you be more or less likely to use the discussion boards if HSE officers contributed? (please tick as appropriate)

More likely [ ] Less likely [ ] The same [ ]

19. What do you think would encourage people to use the discussion boards?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

116
20. If you wanted to discuss a health and safety enforcement issue with fellow officers (other than those in your own authority) how would you go about it? (please tick as appropriate)

- [ ] Contact a colleague
- [ ] Use EHC Net
- [ ] Contact your liaison group
- [ ] Other, please specify

**Liaison Group Database**

21. Have you accessed the liaison group database? (please tick as appropriate)

- [ ] Yes
- [ ] No

If you ticked ‘No’ go to question 25

22. Please rate the usefulness of the database on a scale of 1 to 5, with 1 being ‘not very useful’ and 5 being ‘very useful’. (please circle as appropriate)

**Not Very Useful** 1 2 3 4 5 **Very Useful**

If you answered 1 or 2 please state why.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

23. Have you found the information on the database up to date/accurate? (please tick as appropriate)

- [ ] Yes
- [ ] No

24. For what purpose do you think the LG database could be used by LA enforcement officers?
25. Do you currently work with any other liaison groups on health and safety enforcement issues?  
(please tick as appropriate)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If ‘Yes’, how?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

26. What benefits would there be from liaison groups working more collaboratively?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

27. What drawbacks would there be from liaison groups working more collaboratively?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

28. Do you think the liaison group database could assist collaborative working between your liaison group and others?  
(please tick as appropriate)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>
29. Where else would you look to find information on liaison group details/contacts?

__________________________________________

__________________________________________

__________________________________________

30. Any other comments about the liaison group database?

__________________________________________

__________________________________________

__________________________________________

**Posting Information**

31. Are you aware that each Local Authority is able to add information directly to the site?  
(please tick as appropriate)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If ‘No’, go to question 33

32. Have you attempted to add any information to the site?  
(please tick as appropriate)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you ticked ‘No’, why not?

<table>
<thead>
<tr>
<th>No appropriate information to add</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No time</td>
<td></td>
</tr>
<tr>
<td>Unsure of how to add information</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>
33. What would encourage LA based enforcement officers to post information on the site?

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________

34. Have you read the user guides accompanying the website?
(please tick as appropriate)

Yes [ ] No [ ]

35. Do you have any other comments about the site?

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________

36. Please indicate the reasons why have you not logged on to the website
(tick as appropriate, more than one box can be ticked)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>My authority does not consider it appropriate to use the Internet at work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have limited or no Internet access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The site is not relevant to my needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have had insufficient information about the site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I lack the required IT/Internet skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not have time to use the site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not have a username and password</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have no knowledge of the site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Please state your job title.  
(please circle as appropriate)

<table>
<thead>
<tr>
<th>Job Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technician/Technical Officer</td>
<td></td>
</tr>
<tr>
<td>Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Senior Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Principal Environmental Health Officer/Team Leader</td>
<td></td>
</tr>
<tr>
<td>Student Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

2. What percentage of your time at work is spent on health and safety enforcement (as opposed to food etc)?
(please circle as appropriate)

<table>
<thead>
<tr>
<th>Percentage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25% or less</td>
<td></td>
</tr>
<tr>
<td>26 - 50%</td>
<td></td>
</tr>
<tr>
<td>51 - 75%</td>
<td></td>
</tr>
<tr>
<td>76 - 100%</td>
<td></td>
</tr>
</tbody>
</table>

3. How long have you worked in health and safety?  
(please circle as appropriate)

<table>
<thead>
<tr>
<th>Duration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td></td>
</tr>
<tr>
<td>1-2 years</td>
<td></td>
</tr>
<tr>
<td>2-5 years</td>
<td></td>
</tr>
<tr>
<td>&gt; 5 years</td>
<td></td>
</tr>
</tbody>
</table>
4. Please rate the extent to which you felt the training session achieved the following aims and objectives, on a scale of 1 to 5, with 1 being ‘did not achieve at all’ and 5 being ‘fully achieved’.

(please circle as appropriate)

(a) Familiarise enforcement officers with the role and use of the MAC

Did not achieve at all 1 2 3 4 5 Fully achieved

(b) Facilitate discussions about the use of the MAC in different scenarios to promote consistency of application.

Did not achieve at all 1 2 3 4 5 Fully achieved

(c) Practice using the MAC

Did not achieve at all 1 2 3 4 5 Fully achieved

(d) Enable attendees to facilitate training sessions on the role and use of the MAC

Did not achieve at all 1 2 3 4 5 Fully achieved

If you circled 1 or 2, why was this?

5. Please rate the quality of the materials provided for the training session, on a scale of 1 to 5, with 1 being ‘very poor’ and 5 being ‘very good’.

Please tick as appropriate

Material 1 2 3 4 5
Video exercises
Presentation

If you ticked 1 or 2, how could the materials be improved?

________________________________________

________________________________________

________________________________________
6. In your view, what were the strengths of the training session?

7. In your view, what were the weaknesses of the training session?

8. Now that you have completed the training session, please rate how confident you feel about facilitating a MAC training session, on a scale of 1 to 5, with 1 being ‘very uncertain’ and 5 being ‘very confident’.

Please circle as appropriate

<table>
<thead>
<tr>
<th>Very Uncertain</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Very Confident</th>
</tr>
</thead>
</table>

9. Will you facilitate a MAC training session for LA based health and safety enforcement officers?

Yes  |  No  |  Not sure

If ‘No’ why not?

10. Please rate the overall effectiveness of the training session on a scale of 1 to 5, with 1 being ‘very ineffective’ and 5 being ‘very effective’.

Please circle as appropriate

<table>
<thead>
<tr>
<th>Very Ineffective</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Very Effective</th>
</tr>
</thead>
</table>

11. Could the training session be improved in any way?

Yes  |  No  |
If you ticked ‘Yes’, please specify how

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

12. Please add any other comments or feedback about the training session that you think would be useful.

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

Thank you for completing this evaluation form. The information you provide will be used to improve the training toolkit.
1. Please state your job title.  
(please tick as appropriate)

- Technician/Technical Officer
- Environmental Health Officer
- Senior Environmental Health Officer
- Principal Environmental Health Officer/Team Leader
- Student Environmental Health Officer
- Other (please specify)

2. What percentage of your time at work is spent on health and safety enforcement (as opposed to food etc)?  
(please tick as appropriate)

- 25% or less
- 26 - 50%
- 51 - 75%
- 76 - 100%

3. How long have you worked in health and safety?  
(tick as appropriate)

- < 1 year
- 1-2 years
- 2-5 years
- 5 years

4. Please rate to what extent you felt the training session achieved the following aims, on a scale of 1 to 5, with 1 being ‘did not achieve at all’ and 5 being ‘fully achieved’.  
(please circle as appropriate)

(a) Familiarised enforcement officers with the role and use of the MAC

Did not achieve at all  1  2  3  4  5  Fully achieved

(b) Promoted consistency of application of the MAC.

Did not achieve at all  1  2  3  4  5  Fully achieved
(c) Enabled practice of using the MAC

**Did not achieve at all** 1 2 3 4 5 **Fully achieved**

If you circled 1 or 2, why was this?

________________________________________________________________________

________________________________________________________________________

5. Please rate how satisfied you were with the quality of the training materials used during the session, on a scale of 1 to 5, with 1 being ‘very dissatisfied’ and 5 being ‘very satisfied’.
   (please tick as appropriate)

<table>
<thead>
<tr>
<th>Material</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. If you ticked 1 or 2, how could the materials be improved?

________________________________________________________________________

________________________________________________________________________

7. In your view, what were the strengths of the training session?

________________________________________________________________________

________________________________________________________________________

8. In your view, what were the weaknesses of the training session?

________________________________________________________________________

________________________________________________________________________

9. As a consequence of attending the training session will you use the MAC:
   (please tick as appropriate)

| As often as you did before | | |
|----------------------------|---|
| More often than you did before | | |
| Less often than you did before | | |
10. Now that you have completed the training session, please rate how confident you feel about using the MAC during enforcement work, on a scale of 1 to 5, with 1 being ‘very uncertain’ and 5 being ‘very confident’.
   (please circle as appropriate)

   Very Uncertain     1  2  3  4  5     Very Confident

11. Please rate the overall effectiveness of the training session?
   (please circle as appropriate)

   Very Ineffective   1  2  3  4  5     Very Effective

12. Could the training session be improved in any way?
   (please tick as appropriate)

   Yes   No

   If you ticked ‘Yes’, please specify how

   _______________________________________________________
   _______________________________________________________
   _______________________________________________________

13. Please add any other comments or feedback about the training session that you think would be useful.

   _______________________________________________________
   _______________________________________________________
   _______________________________________________________

Thank you for completing this evaluation form. The information you provide will be used to improve the training toolkit. Completed forms should be returned to the facilitator of the training session you attended.
APPENDIX 4

UNIVERSITY OF SALFORD
MAC Training Toolkit
Facilitators’ Evaluation of the MAC Cascaded Training

This questionnaire comprises three parts:

PART 1: Telephone interview to ascertain (a) whether trained Facilitators undertook any cascade training events, and (b) where appropriate, the reasons for not having done so.

PART 2: Self completed questionnaire seeking information about the cascaded training events.

PART 3: Self completed questionnaire (or telephone interview) seeking (a) information about role of the HELA Training Co-ord portal in supporting cascaded training, and (b) the overall effectiveness of supported cascade training.

PART 1 (telephone interview)

Name:

Liaison Group:

1. According to our records you attended one of the MAC facilitator training sessions and we were wondering if you have facilitated any MAC training sessions using the training toolkit that was described to you there.

<table>
<thead>
<tr>
<th>Yes</th>
<th>Go to Q3</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Go to Q2</td>
</tr>
</tbody>
</table>

2. Can you tell us why you have not facilitated any MAC training?

IF ‘NO’ TO Q1 STOP INTERVIEW AFTER Q2.
IF 'YES' TO Q1 SEND QUESTIONNAIRE VIA EMAIL FOR RESPONDENT TO COMPLETE AND RETURN
PART 2

If you are completing this form electronically please click in the boxes provided to key in data, extending the boxes as required. Where fixed alternatives are provided please embolden the appropriate response.

3. Please state your job title.

<table>
<thead>
<tr>
<th>Job Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technician/Technical Officer</td>
<td></td>
</tr>
<tr>
<td>Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Senior Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Principal Environmental Health Officer/Team Leader</td>
<td></td>
</tr>
<tr>
<td>Student Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

4. How many training sessions have you facilitated?

5. Date(s) of training session(s).

6. Which officers were offered the training session(s)?

<table>
<thead>
<tr>
<th>Officers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers from the local authority in which you are employed</td>
<td></td>
</tr>
<tr>
<td>Officers from local authorities within your liaison group</td>
<td></td>
</tr>
<tr>
<td>Others, please specify</td>
<td></td>
</tr>
</tbody>
</table>
7. How many enforcement officers attended the training session(s)?

<table>
<thead>
<tr>
<th>Date of session</th>
<th>Number of attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. How long did each training session take in total?

<table>
<thead>
<tr>
<th>Date of session</th>
<th>Time taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Were all the participants authorised enforcement officers?

Yes  Go to Q11  
No   Go to Q10

10. Please give details of the other participants.

11. On a scale of 1 to 5, with 1 being 'not achieved at all' and 5 being 'fully achieved', please rate the extent to which you felt the training session(s) achieved the following aims and objectives:

(a) Familiarised enforcement officers with the role and use of the MAC.

Did not achieve at all  1  2  3  4  5  Fully achieved

(b) Promoted consistency of application of the MAC.

Did not achieve at all  1  2  3  4  5  Fully achieved

(c) Enabled practice of using the MAC.

Did not achieve at all  1  2  3  4  5  Fully achieved
If you selected 1 or 2, why was this?

12. Did you experience any difficulties preparing for the training session(s)?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Go to Q13</td>
</tr>
<tr>
<td>No</td>
<td>Go to Q14</td>
</tr>
</tbody>
</table>

13. What difficulties did you experience?

14. On a scale of 1 to 5, with 1 being ‘Very Poor’ and 5 being ‘Very Good’, please rate the quality of the materials provided for the training session.

Please tick, or type 'Yes', in the appropriate box

<table>
<thead>
<tr>
<th>Material</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitator’s Notes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you selected 1 or 2, how could the materials be improved?
15. Did the toolkit contain all the materials you required to run the training session(s)?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Go to Q17</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Go to Q16</td>
</tr>
</tbody>
</table>

16. What other materials are required?

17. Did you experience any difficulties with the delivery of the training session(s)?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Go to Q18</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Go to Q19</td>
</tr>
</tbody>
</table>

18. What difficulties did you experience?

19. Did you experience any difficulties in conducting the practical exercises?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Go to Q20</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Go to Q21</td>
</tr>
</tbody>
</table>

20. What difficulties did you experience?

21. In your view, what are the strengths of the MAC training toolkit?
22. In your view, what are the weaknesses of the MAC training toolkit?


23. In your view, could the training toolkit be improved in any way?

<table>
<thead>
<tr>
<th></th>
<th>Go to Q24</th>
<th>Go to Q25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24. Please specify how it could be improved.


PART 3

25. Were any benefits gained from having the training materials available on the HELA web site?

<table>
<thead>
<tr>
<th></th>
<th>Go to Q26</th>
<th>Go to Q27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

26. What were the benefits?


27. How did you use the MAC training materials provided on the web?

<table>
<thead>
<tr>
<th></th>
<th>Go to Q28</th>
</tr>
</thead>
<tbody>
<tr>
<td>I used the materials in exactly the same format as I downloaded them.</td>
<td></td>
</tr>
<tr>
<td>I changed/modified or added to the materials</td>
<td></td>
</tr>
</tbody>
</table>
28. In what ways did you change/modify the materials?


29. Have you used the training materials in any way other than for training LA based Health and Safety Enforcement Officers?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Go to Q30</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Go to Q31</td>
</tr>
</tbody>
</table>

30. In what other ways have you used the training materials?


31. Please state your level of agreement to the following statement:

Please tick, or type 'Yes', in the appropriate box

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This type of supported cascade training is an effective way of training.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

32. What do you consider to be the advantages of this type of supported cascade training?


33. What do you consider to be the disadvantages of this type of supported cascade training?


134
Please state your level of agreement to the following statements:

Please tick, or type 'Yes', in the appropriate box.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>34.</td>
<td>This type of supported cascade training can make an effective contribution to improving the competence of LA based Health and Safety Inspectors.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35.</td>
<td>This type of supported cascade training can make an effective contribution to improving the consistency of enforcement action by LA based Health and Safety Inspectors.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>This type of supported cascade training can make an effective contribution to improving the knowledge of LA based Health and Safety Inspectors.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>I would be willing to take part as a facilitator in similar types of health and safety training in the future?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

38. Please add any other comments or feedback about the training toolkit that you think would be useful.

Thank you for completing this evaluation form. The information you provide will be used to improve the training toolkit.
APPENDIX 5

UNIVERSITY OF SALFORD

Telephone Interview (Users)

To be filled in prior to interview

<table>
<thead>
<tr>
<th>Username</th>
<th>Number of logins</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Authority</td>
<td></td>
</tr>
</tbody>
</table>

Please do not read out any of the possible answers to the questions, except where necessary, i.e with answers on a scale.

1. Job title

<table>
<thead>
<tr>
<th>Technician/Technical Officer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Senior Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Principal Environmental Health Officer/Team Leader</td>
<td></td>
</tr>
<tr>
<td>Student Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

2. Percentage time spent on health and safety enforcement

<table>
<thead>
<tr>
<th>25% or less</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>26 - 50%</td>
<td></td>
</tr>
<tr>
<td>51 - 75%</td>
<td></td>
</tr>
<tr>
<td>76 - 100%</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>

3. How many years have you worked in health and safety enforcement?

<table>
<thead>
<tr>
<th>Less than 1 year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>5-10</td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td></td>
</tr>
</tbody>
</table>
4. How did you become aware of the web site?

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Word of Mouth</td>
<td></td>
</tr>
<tr>
<td>Work announcement</td>
<td></td>
</tr>
<tr>
<td>Link whilst browsing</td>
<td></td>
</tr>
<tr>
<td>Site Newsletter</td>
<td></td>
</tr>
<tr>
<td>LAU newsletter</td>
<td></td>
</tr>
<tr>
<td>Conference/meeting/training course</td>
<td></td>
</tr>
<tr>
<td>Mailshot</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>

5. At work, what access do you have to an online PC to use the web site?

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Own PC</td>
<td></td>
</tr>
<tr>
<td>Share with one colleague</td>
<td></td>
</tr>
<tr>
<td>Share with two colleagues</td>
<td></td>
</tr>
<tr>
<td>Share with more than 2 colleagues</td>
<td></td>
</tr>
<tr>
<td>No access</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>

6. Do you have facilities to download and save resources/materials from the web site?

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td></td>
</tr>
</tbody>
</table>

If ‘No’ go to Question 8

7a. Does your IT Department restrict the download or upload of any file types from the internet?

<table>
<thead>
<tr>
<th>Option</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td></td>
</tr>
</tbody>
</table>

If ‘No’ go to Question 8

7b. If ‘Yes’, what type of file download/upload is restricted (e.g. PowerPoint, Excel, PDF HTML)

Interviewer - explain that at present each officer should have his or her own individual username and password.
8. Do you have your own password for the web site or do you use a colleague’s?

| Own password | Colleague’s |

9a. Do you think the present system for usernames and passwords is satisfactory?

| Yes | No | Don’t know |

If Yes go to Question 10a

9b. If not what would you suggest?

10a. Have you experienced any password problems?

| Yes | No |

If No go to Question 11

10b. If ‘Yes’, please explain what the problem was.

11. Did you know that you need a second password to use some of the web site’s functions?

| Yes | No |

Interviewer - If ‘No’, explain to the respondent that a second password is required to add content to the site, alter liaison group details and add events to the calendar.

12. Do you think that the requirement for a second password to access these facilities discourages users from using them?

| Yes | No | Don’t know |
13. Would you prefer one password to access all facilities?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

14a. Are you aware of the reasons why the HSE established the web site?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

If ‘No’ go to Question 15

14b. If ‘Yes’, what do you believe the reasons are?

15. Please state the extent to which you consider the web site has achieved the following objectives:

<table>
<thead>
<tr>
<th>Question</th>
<th>Objective</th>
<th>Strongly Disagree 1</th>
<th>Disagree 2</th>
<th>Neutral 3</th>
<th>Agree 4</th>
<th>Strongly Agree 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>15a.</td>
<td>Improved communications and information flow between LAs, specifically on priority programme topics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15b.</td>
<td>Improved communications and info flow between LAs and HSE specifically on priority programme topics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15c.</td>
<td>Improved communications and info flow between LAs specifically on training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15d.</td>
<td>Improved communications and info flow between LAs and HSE specifically on training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15e.</td>
<td>Supporting training needs arising from the priority programme initiative.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15f.</td>
<td>Encouraging and enabling knowledge sharing between LAs on general health and safety enforcement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16a. Have you ever had difficulty finding the web site address?

| Yes | No | Don’t know |

If No go to Question 17a.

16b. If ‘Yes’ how did you find it?


17a. Have you ever had difficulty navigating the site or using its functions?

| Yes | No | Don’t know |

If No go to Question 18

17b. If ‘Yes’ then how did you overcome the problem(s)?

- Solved it myself
- Contacted the site administrator
- Used the user guide
- Asked a colleague
- Didn’t overcome it - still experience difficulty
- Other

17c. If ‘other’, then how did you overcome the problem?
18. For what reason would you access health and safety information resources?

Interviewer – Do not prompt

To find information on:

<table>
<thead>
<tr>
<th>Reason</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Best/good practice</td>
<td></td>
</tr>
<tr>
<td>New legislation</td>
<td></td>
</tr>
<tr>
<td>New guidance</td>
<td></td>
</tr>
<tr>
<td>Professional development</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
</tr>
<tr>
<td>Advice on enforcement</td>
<td></td>
</tr>
<tr>
<td>Details of legal action</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>

19a. Which aspects of the HELA site do you find most useful?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

19b. Which aspects of the HELA site do find least useful?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

20a. Do you feel that the HELA site has any particular advantages over other health and safety information resources?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

If ‘No’ go to Question 21a.

20b. Please specify the advantages you identify.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
21a. Do you feel that the HELA site has any particular **disadvantages** over other HS information resources?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

**If No go to 22a.**

21b. Please specify the disadvantages you identify

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

22. Please state your level of agreement with the following statements using this scale.

<table>
<thead>
<tr>
<th>Question</th>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>22a</td>
<td>I like the appearance of the web site</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22b</td>
<td>I find the structure of the web site user friendly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22c</td>
<td>I find navigating the web site logical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22d</td>
<td>I can easily locate specific information on the web site</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22e</td>
<td>I can download information resources without difficulty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22f</td>
<td>I find the current search engine effective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22g</td>
<td>Knowledge/information which is shared via the web site is generally reliable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23. I am now going to ask if you are familiar with certain areas and functions of the website. If you are, I will then ask you to rate how useful you find them on a scale of 1 to 5, with 1 being not useful at all and 5 being very useful.

<table>
<thead>
<tr>
<th>Item</th>
<th>Areas of the site</th>
<th>Familiar</th>
<th>Item</th>
<th>Rating 1-5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>23b</td>
</tr>
<tr>
<td>23a</td>
<td>Priority Programmes</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>24a</td>
<td>Practice and Procedures</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>25a</td>
<td>Asbestos</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>26a</td>
<td>Training</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>27a</td>
<td>Subsites</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>28a</td>
<td>Discussion Board</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>29a</td>
<td>Calendar</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>30a</td>
<td>Topic Inspection</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>31a</td>
<td>Liaison Group Database</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>32a</td>
<td>Search Facility</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

33a. Do you consider that there is any content missing from the web site?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

If ‘No’ go to 34a.

33b. If ‘Yes’ what type of content do you think is missing?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

34a. Are there any other functions you think the web site should perform?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

If ‘No’ go to Question 35

34b. If ‘Yes’ what other functions do you think the web site should perform?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
35. What motivates you to log on to the web site?


36a. Would you be willing to share knowledge via the web site?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

If Yes go to Question 37

36b. If not why not?


37. Do you ever feel uncertain about what information it is okay to share on the web site?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

38. Do you feel that your workload is flexible enough to allow you to use the web site?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

39a. Have you ever had any training to use the web site?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

39b. If ‘Yes’ please provide details of training


40. Please state your level of agreement with the following statements using this scale.

<table>
<thead>
<tr>
<th>Item</th>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>40a.</td>
<td>The culture within my authority provides the opportunity for the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>communication of ideas, knowledge and experiences among officers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40b.</td>
<td>Within my authority individuals tend not to disseminate knowledge they</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>acquire.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40c.</td>
<td>Individuals are reluctant to share their knowledge because they feel it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>gives them a competitive advantage over others?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40d.</td>
<td>Individual authorities tend not to disseminate knowledge they acquire and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>are reluctant to share it with other authorities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

41a. Does your authority have procedures to retain the knowledge and know how of officers who leave the authority?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

41b If yes, what are the procedures?


42. Have you accessed the topic inspection packs on the website?

Yes | No | Don’t know

If ‘No’ go to Question 44

43. Please state your level of agreement to ‘Having the topic inspection packs on the web site has proved useful in helping me to adopt the topic inspection approach.’

1 - Strongly disagree | 2 - Disagree | 3 - No opinion | 4 - Agree | 5 - Strongly agree

44. Do you think there are any advantages of having such information available on a web site rather than in hard copy?

Yes | No | Don’t know

45. If ‘Yes’ to above, what are the advantages?
APPENDIX 6

UNIVERSITY OF SALFORD

Telephone Interview (Non-Users)

To be filled in prior to interview

Username

Authority

1. Does the above named person presently work in this authority?

Yes                        No

If No go to Question 4

2. Do they work in health and safety?

Yes                        No

If Yes got to Question 5

3. Have they ever worked in health and safety?

Yes                        No

Go to 4(b)

4. Have they ever worked at this authority?

Yes                        No

4(b) Note any information about the person, for example, change of job etc

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

If user unavailable conclude interview, otherwise continue.
Following questions to the user
Please do not read out any of the possible answers to the questions, except where necessary, i.e with answers on a scale.

5. Are you aware of the HELA training co-ord web site?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If yes go to Question 6
If no go to Question 7

6. How did you become aware of the web site?

- Word of Mouth
- Work announcement
- Link whilst browsing
- Site Newsletter
- LAU newsletter
- Conference/meeting/training course
- Mailshot
- Other, please specify

7. Did you know you had a user name and password for the site?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

8. According to our records you have not accessed the site. Is this correct?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If Yes go to Question 10
If No ask Question 9 and then terminate the interview.

9. How have you accessed the site/ which password have you used to access the site?

148
10. Job title

<table>
<thead>
<tr>
<th>Job title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technician/Technical Officer</td>
<td></td>
</tr>
<tr>
<td>Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Senior Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Principal Environmental Health Officer/Team Leader</td>
<td></td>
</tr>
<tr>
<td>Student Environmental Health Officer</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

11. Percentage time spent on health and safety.

<table>
<thead>
<tr>
<th>Percentage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>25% or less</td>
<td></td>
</tr>
<tr>
<td>26 - 50%</td>
<td></td>
</tr>
<tr>
<td>51 - 75%</td>
<td></td>
</tr>
<tr>
<td>76 - 100%</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>

12. How many years have you worked in health and safety?

<table>
<thead>
<tr>
<th>Years</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>5-10</td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td></td>
</tr>
</tbody>
</table>

13. At work, what access do you have to an online PC to use the web site?

<table>
<thead>
<tr>
<th>Access</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Own PC</td>
<td></td>
</tr>
<tr>
<td>Share with one colleague</td>
<td></td>
</tr>
<tr>
<td>Share with two colleagues</td>
<td></td>
</tr>
<tr>
<td>Share with more than 2 colleagues</td>
<td></td>
</tr>
<tr>
<td>No access</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>
14. Can you give me the reason/s why you have not accessed the HELA training co-ord web site?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didn’t know about the web site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I no longer work in health and safety enforcement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My authority does not consider it appropriate use of the internet.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have limited or no access to the internet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The site content is not relevant to my needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I lack the required IT/internet skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have had insufficient information about the site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I do not have time to use the site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have no need of the site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I cannot get access to the site because I have had problems with my</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>password and username</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have heard it is not very useful</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15a. Are you aware of the reasons why the HSE established the web site?

If No go to Question 16

15b. If ‘Yes’, what do you believe the reasons are?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

16. For what reason would you access health and safety information resources?

Interviewer: **Do not prompt**

To find information on:

Best/good practice
New legislation
New guidance
Professional development
Training
Advice on enforcement
Details of legal action
Other, please specify
17. How do you get access to health and safety information presently?

<table>
<thead>
<tr>
<th>Professional journals and magazines</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleagues</td>
<td></td>
</tr>
<tr>
<td>EHC net</td>
<td></td>
</tr>
<tr>
<td>HSE website</td>
<td></td>
</tr>
<tr>
<td>IOSH web site</td>
<td></td>
</tr>
<tr>
<td>HSE info line</td>
<td></td>
</tr>
<tr>
<td>Information held within my authority</td>
<td></td>
</tr>
<tr>
<td>Don’t access information</td>
<td></td>
</tr>
<tr>
<td>Technical Indexes</td>
<td></td>
</tr>
<tr>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>

18. What would motivate you to log on to the web site?


19. Does anyone else in your authority, who is enforcing health and safety, use the site on a regular basis?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

20. Do you intend to log on to the site in future?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
</tr>
</thead>
</table>

Thank you for taking part in the survey, your feedback will contribute to the development of the HSE extranet.