



D5.1 - Preliminary Evaluation Report

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1 Introduction

The L4A// project has developed a prototype system, the L4A// system, for visualising, planning and reflecting on personal learning and lifelong learning. It offers an online space that provides information on learning opportunities and career development pathways, and a forum for learners to share information and collaborate with peers and tutors.

The MyPlan project aims to increase the value of the L4A// pilot by researching, developing, deploying and evaluating (i) user models for lifelong learners, (ii) personalised functionalities for the creation, search and recommendation of learning pathways, and (iii) a game-based application to support learners in exploring the range of educational and career possibilities.

This document reports on the first phase of the evaluation of the enhanced L4A// system, that started upon the delivery of Version 1 of the system, as described in Deliverable D4.1. A second evaluation phase is planned for the summer of 2008, after delivery of Version 2 of the enhanced system.

This document (which is Deliverable 5.1 of Workpackage 5) it presents our findings from two evaluation sessions that took place at Birkbeck on the 19th of February 2008 and at Community College Hackney on the 13th of March 2008.

2 Aims and Objectives

The development of the first version of the enhanced L4A// system reached in early 2008 a state where a first evaluation phase could be undertaken. Deliverable D4.1 described in detail the development activities involved in the design of the personalisation engine, which represents the first planned enhancement to the original L4A// prototype. In brief, this involved:

- Redesign of the GUI using DHTML/javascript for the front-end and JSP/servlet for the back-end.
- Redesign of several aspects of the ontology underlying the system, in order to accommodate the new personalisation functionalities: different categories of user (learner, expert, institution), a two-dimensional taxonomy of episodes, etc.
- Design and implementation of a similarity measure engine for the comparison of learners' timelines. This mechanism is based on converting timelines into strings of comparable tokens and using string metrics for ranking them. It is discussed in detail in a paper to appear in the proceedings of the 9th International Conference on Intelligent Tutoring Systems, June 2008.
- Design and implementation of a "what to do next" engine, using our timeline formalism for representing requirements and possibilities of what to learn next, and our similarity engine for finding and ranking matches.
- Design and deployment of several customisation procedures (colour/shapes used in the timeline visualisation, bookmarks for interesting timelines, etc.)

The significant effort spent in redesigning the GUI stems from the fact that providing a personalised mechanism for searching for "people like me" is considered important in engaging lifelong learners with planning of their personal learning and their career development. To this end, a crucial aspect of learners' support is to offer tools that would allow learners to *exploit* the information returned by the system. One of the key mechanisms for better support is to allow learners to *simultaneously* access several timelines in order to compare them.

The second major development was the deployment of a mechanism for measuring similarities between timelines, i.e. the basis for searching for "people like me" and "what to do next". The original L4A// prototype supported several search functionalities over users

and their timelines. Two limitations of this approach were identified during the first piloting phase of the original L4A// project: First, all the search functionalities were keyword-based, targeting the various fields of the User Profile, Learning Profile and Timelines, and therefore limited in their scope. In particular, searching over timelines returns matches based solely on the occurrence of the keywords present in one or several episodes but cannot exploit the overall structure of the timeline. Second, the results of any search were not personalised according to the particular user performing the search. An alternative approach, which takes into account both these issues, has therefore been developed during the first year of the MyPlan project: a similarity measure between a user's timeline and the other users' timelines in the L4A// repository. Four assumptions were made for developing this similarity mechanism:

1. *The precise duration and dates of an episode have no particular significance.*
2. *Gaps between episodes have no particular significance unless explicitly expressed as an episode.*
3. *Some categories of episode may have no role to play in defining "people like me".*
4. *The exact classification of an episode may not be significant in defining "people like me".*

A dedicated new interface for searching for "people like me" has therefore been designed and implemented. It provides users with a three-step process for specifying their *own* definition of "people like me", in any given context of usage: (i) specifying those attributes of the user's profile that should be matched with other users' profiles (age, qualification, location, etc.); (ii) specifying which part(s) of the timelines should be taken into account for the similarity comparison (by selecting the appropriate categories of episode); (iii) specifying the nature of the similarity measure to be used (i.e. depth of episode classification and similarity metric to be used). Once a definition of "people like me" has been specified by the user, the search returns a list of all candidate timelines, ranked by their relevance to the user's timeline. Users then have the possibility to access any of the returned timelines and to visualise them side by side with their own timeline.

This first phase of the evaluation aims at uncovering the impact of these design decisions for searching for "people like me", as experienced by the two target groups of learners at Birkbeck and Community College Hackney. The second evaluation phase, planned for Summer 2008, will revisit this functionality and explore also the "what to do next" functionality.

3 Methodology and Experimental Design

3.1 Evaluation Script

The evaluation was organised around three activities:

- A usability study of the new system, focusing on participants building their own timelines and exploring the most important components of the system (registration, modification of user profile, manipulation and modification of timelines).
- An evaluation of the new searching for "people like me" functionality, focusing on participants exploring different combinations of search parameters and reporting on the similarity ranking and usefulness of the results returned by the system.
- A post-evaluation questionnaire.

These activities were detailed in a script that was given to each participant (see Appendix B). Each activity was organised as a sequence of simple tasks, each of these described in enough detail for participants to undertake on their own.

Most of these tasks were followed with a self-report form for participants to record their experiences with the system so far. These self-report forms contained between 4 and 6 questions to be answered in the range *very easy* to *very hard* by participants. Provision was also made for participants to report any problems faced and other issues as they saw fit. The breakdown of tasks and the functionality targeted by each one is shown in Table 1.

3.2 L4All Set-up

The first part of the evaluation script, i.e. create your own timeline, did not require any particular set-up in the system, as participants would be asked to create their own profile from scratch. However, the second part of the evaluation, i.e. search for "people like me", required a significant amount of preparatory work, due to the need for an appropriate database of timelines to search over. To achieve our objectives, this entailed the definition of a database that:

- contained enough timelines for a search for "people like me" to be effective;
- contained timelines with different degrees of similarity with the participants' real (or assumed) identity for investigating the impact of different similarity measures;
- contained timelines that were short enough (in terms of episodes) for an easy visual comparison with the participants' own timeline but long enough for similarity matches to be effective.

Table 1. Evaluation Tasks and Targets

| # | Task | Target |
|--|--|--|
| Activity 1 – create your own timeline | | |
| T1.1 | Launch L4All | - |
| T1.2 | Register as a new user and start L4All | Access to login/registration page, use of registration form, understanding of required information |
| T1.3 | Acquaintance with L4All interface | Usability of web page, identification of interface widgets, manipulation of timeline |
| T1.4 | Complete the information in your profile | Usability of web page, use of editor, understanding of required information |
| T1.5 | Specify the 2 most important events in your educational experience | Understanding difference between profile and timeline, identification of interface widgets, use of editor, understanding of required information, manipulation of timeline |

| # | Task | Target |
|---|---|--|
| T1.6 | Specify the 2 most important events in your personal experience | Understanding difference between profile and timeline, identification of interface widgets, use of editor, understanding of required information, manipulation of timeline |
| T1.7 | Specify your current occupation | Understanding difference between profile and timeline, identification of interface widgets, use of editor, understanding of required information, manipulation of timeline |
| Activity 2 – search for "people like me" | | |
| T2.1 | What is your definition of "people like me"? | Criteria used in searching for similar people |
| T2.2 | Log off and re-enter L4A// | - |
| T2.3 | Explore your new identity | - |
| T2.4 | Search for "people like me" | - |
| T2.5 | Report on the search for "people like me" | Criteria used in searching for similar people, appropriateness and usefulness of results, understanding of "similar" timelines, appropriateness and usefulness of ranking |
| Activity 3 – Feedback Questionnaire | | |
| Q1 | About the L4A// system | |
| Q2 | About the Registration/Profile | |
| Q3 | About the Timeline/Episodes | |
| Q4 | About the search for "people like me" | |
| Q5 | About the e-Learning tool | |

Which profile and timeline participants would use was also an issue. The best option would be for users to have maximum familiarity with their profile and timeline, and therefore having them use the profile and timeline they had created during Activity 1. However, this approach is based on the assumption that participants will perform sufficiently well in Activity 1 to base Activity 2 on its outputs. Moreover, since we did not know in advance what would be the participants' profiles and timelines, it would have been difficult to build an appropriate database of "similar" timelines to support Activity 2.

We therefore decided to opt for an artificial solution: providing participants with an *avatar*, i.e. a ready-to-use artificial identity, complete with its profile and timeline, and generating a database of other timelines based on various degrees of similarity with these avatars.

Given the heterogeneous background of the lifelong learners studying at Birkbeck, it was a difficult task to decide what kind of profile to establish, even by looking for inspiration on the "featured students" feed from the College's website. After several tests and trials, the following decisions were made:

- Two avatars to be defined and distributed randomly among the participants
- Each avatar to have 7 episodes (3 educational, 3 professional and 1 personal), spread over a 4 to 6 year period.
- The two avatars' profiles to be identical, except for the gender, with male for Avatar 1 and female for Avatar 2.

A summary of the two avatars' timelines is shown in Table 2, giving each episode in each of the timelines, their start and end dates (when applicable), their duration, and also their classification. These classifications of episodes, as described in Deliverable D4.1, are a way of improving the power of discrimination of important episodes (namely professional and education episodes) by making more precise their exact nature. In the table, *Class 1* and *Class 2* refer respectively to the primary and secondary classification of the episode. The

four-digit code indicates a specific item in a tree-like taxonomy; the content of these taxonomies can be found in Appendix D.

Table 2. Summary of the two avatars' timeline used for the evaluation.

| n. | Title | Type | Start | End | Dur. | Class 1 | Class 2 |
|-----------------|--|------------|------------|------------|------|----------|---------|
| Avatar 1 | | | | | | | |
| 1 | Secondary School | college | 2003/09/25 | 2005/07/13 | 22 | 10.1.0.0 | 3.1.0.0 |
| 2 | GCSE in Humanities | degree | 2005/07/13 | 2005/07/13 | 0 | 10.1.0.0 | 3.1.0.0 |
| 3 | Call Center operator | work | 2006/01/01 | 2006/11/01 | 10 | D.0.0.0 | 7.2.1.2 |
| 4 | User Support Technician | work | 2006/11/01 | 2007/06/01 | 7 | J.0.0.0 | 3.1.3.2 |
| 5 | Database Assistant | work | 2007/06/01 | 2008/04/01 | 10 | C.0.0.0 | 4.1.3.6 |
| 6 | Moved to London | moved | 2007/06/01 | 2007/06/01 | 0 | 0.0.0.0 | 0.0.0.0 |
| 7 | Diploma in Web-Enabled Database (Birkbeck) | university | 2007/10/01 | 2009/09/30 | 24 | 6.4.0.0 | 6.3.0.0 |
| Avatar 2 | | | | | | | |
| 1 | Secondary School | college | 2000/09/01 | 2002/07/01 | 22 | 10.1.0.0 | 3.1.0.0 |
| 2 | GCSE in Humanities | degree | 2002/07/01 | 2002/07/01 | 0 | 10.1.0.0 | 3.1.0.0 |
| 3 | Telephone Salesperson | work | 2002/10/01 | 2004/10/01 | 24 | K.0.0.0 | 7.1.1.3 |
| 4 | Diploma in IT Application (Birkbeck) | university | 2003/10/01 | 2006/09/30 | 36 | 6.4.0.0 | 6.3.0.0 |
| 5 | Maternity leave | carer | 2004/10/01 | 2005/10/01 | 12 | 0.0.0.0 | 0.0.0.0 |
| 6 | User Support Technician | work | 2005/10/01 | 2006/11/10 | 13 | J.0.0.0 | 3.1.3.2 |
| 7 | Training Manager | work | 2006/11/10 | 2008/09/30 | 23 | G.0.0.0 | 1.1.3.5 |

The database of matching timelines was then generated from these avatars' timelines as a starting point by defining and applying "deviation rules", i.e. an explicit description of how one timeline can be transformed into another one by adding, removing or modifying a single episode. The idea behind these deviation rules was twofold: first having a quasi-automatic process for generating timelines on the basis of an initial template and transformation rule; and second, having this transformation reduced to a simple and identifiable operation that can be presented to users as an explanation of the similarity (or rather dissimilarity) between two timelines.

Five deviation rules were applied to the two avatars' timelines, as described in Table 3. They were used, in a cascaded style, to generate "people like me" from the avatars: the first rule was applied to the 2 avatars, generating 2 new timelines; the second rule was then applied to these 4 timelines, generating another 4 timelines, and so on. Applying the five rules resulted in 64 timelines to search over (i.e. 62 generated timelines plus the 2 avatars). Given the difference between the two avatars' timelines, the resulting database had a mix of close and remotely similar timelines for each of the avatars.

Table 3. Deviation rules used to generate the "people like me".

| Rule | Description |
|------|---|
| 1 | Shift all episodes two years in the past |
| 2 | Merge the first 2 work episodes |
| 3 | Change the classification of the last-but-one work episode |
| 4 | Replace last-but-one work episode by a personal episode (gap year: travel abroad) |
| 5 | Remove first personal episode |

This process of generating timelines was limited in its automatization. Defining deviation rules as a one-parameter modification (i.e. applied to one episode only) allowed us to easily control and propagate the definition and modification of the data (by copy-and-paste) but the nature of the changes involved in each rule (i.e. removing one episode, changing one attribute of an episode, etc.) still meant that this operation had to be done by hand.

4 Birkbeck Evaluation

Table 4. Category of episodes created by the Birkbeck participants.

| # of Episode category | type | Users | | | | | | | | | Grand Total |
|------------------------------|------------|----------|----------|----------|----------|----------|----------|-----------|----------|-----------|-------------|
| | | userbbk1 | userbbk2 | userbbk3 | userbbk4 | userbbk5 | userbbk6 | userbbk7 | userbbk8 | userbbk9 | |
| 1- educational | college | 1 | 2 | | | 1 | 1 | | | | 5 |
| | course | | | | 3 | | | 2 | | 2 | 7 |
| | degree | | | | 1 | | | 1 | | 1 | 3 |
| | school | 1 | | | | 1 | | | | 1 | 3 |
| | university | 4 | | 1 | | 1 | | | | | 6 |
| 1- educational Total | | 6 | 2 | 1 | 4 | 3 | 1 | 3 | 4 | 4 | 24 |
| 2- occupational | business | | | | | | | | | 2 | 2 |
| | military | | | 1 | | | | | | | 1 |
| | retired | | | | | | | 1 | | | 1 |
| | unemployed | | 1 | 1 | | | | | | | 2 |
| | voluntary | | | | | | | 1 | | | 1 |
| | work | | 1 | 2 | 1 | 3 | 1 | 1 | 1 | 5 | 15 |
| 2- occupational Total | | 2 | 4 | 1 | 3 | 1 | 3 | 1 | 7 | 22 | |
| 3- personal | death | | | | | | | | 2 | | 2 |
| | disability | | | | | | | 1 | | | 1 |
| | moved | | | 2 | 1 | 1 | | 2 | | | 6 |
| | travel | | | | | 1 | | 2 | | 1 | 4 |
| 3- personal Total | | 2 | 1 | 2 | 2 | 4 | 1 | 3 | 3 | 13 | |
| 4- other | | | | | | | | | 1 | | 1 |
| Grand Total | | 6 | 4 | 7 | 6 | 8 | 2 | 10 | 2 | 15 | 60 |

4.1 The Participants

Of the 10 people that had agreed to participate in the evaluation session, 9 people turned up on the day. They represented a variety of lifelong learners in terms of their experience and background, as extracted (after the session) from their profile and timeline data within L4AII:

- Gender: 3 Female and 6 Male;
- Age: 1 in 20's, 3 in 30's, 4 in 40's, 1 in 50's;
- Background: mean of 3 educational episodes (SD 1.7), 2.75 occupational episodes (SD 2.0) and 2.1 personal episodes (SD 1.2) – see Table 4.

4.2 The Evaluation Session

The session ran according to the script presented in Section 3 and Appendix B. Participants were given access to a computer each, in one of the College's lab booked for this sole purpose.

The session was facilitated by George Magoulas and Nicolas Van Labeke. At the end of the session, a 10 minute discussion focused on the participants' experience of the system, both at the level of functionality (present and future) and concepts underlying the MyPlan project.

When asked, all participants indicated they would volunteer for any follow-up sessions, including one-to-one specific usability studies.

The evaluation script proved to be too ambitious for the intended duration of the session (60-90 minutes), as both the familiarisation with the system and Activity 1 (building your own timeline) took longer than expected. Despite that, participants spent a good part of the two-hour slot going through the tasks and trying out the system.

Unfortunately, there were some mistakes in the self-report questionnaires that may have had an impact on the participants' responses:

- The two "people like me" forms (tasks T2.1 and T2.5, see Appendix B) had duplicated options (in the learning episodes).
- The post-usage "people like me" form (task T2.5) includes options that are not available

in the system (e.g. "others" with free-text options).

- The post-usage "people like me" form (task T2.5) uses an agree/disagree scale, as opposed to the remaining questions (which used an easy/difficult scale).
- The feedback questionnaire had some questions with replies in a different order (from hard to easy instead of easy to hard).

4.3 Main Findings

Activity 1 of the session, i.e. create your own timeline, was really useful and successful in eliciting the positive and negative aspects of the L4All system. One of the positive outcomes of this activity can be seen in the amount of effort made by the participants in building their timelines (see Table 4, above).

The self-reports (see Appendix B for a breakdown of responses per participant and question) indicate an overall satisfaction with the main functionalities of the system, as these were introduced to participants within the step-by-step script. Figure 1 below presents a summary of the participants' responses to the different task self-reports; the figure indicates the sum of all responses by all participants to the different questions associated with the task (there were between 3 and 5 questions for each task).

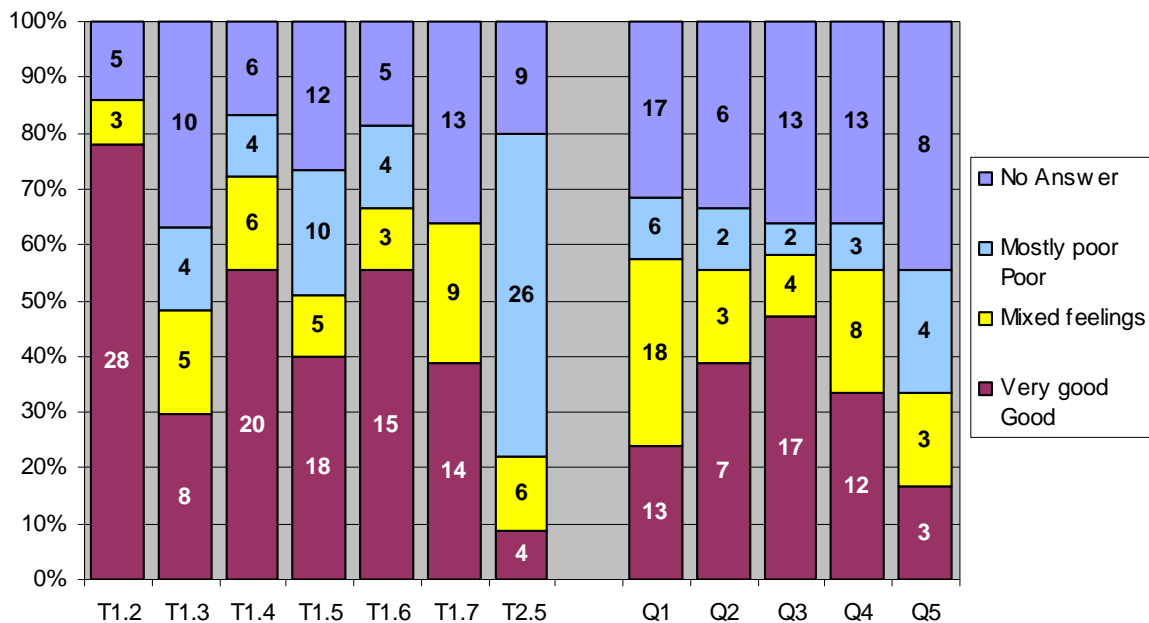


Figure 1. Results of questionnaires.

The registration and login (task T1.2) had a 78% Good/Very Good response. Editing the profile (task T1.4), creating educational episodes (task T1.5), creating personal episode (task T1.6) and specifying current occupation (task T1.7) all had 40% or more of Good/Very good responses. The participants' mixed responses toward acquaintance with interface (task T1.3, 37% No Answer) and search for "people like me" (task T2.5, 58% of Poor/Mostly Poor) indicates difficulties in dealing with these two tasks, issues that were reflected in participants' comments (see below).

The post-session questionnaires also indicated mixed reactions to the system, with a low response to the system as a whole (Q1, only 24% of Good/Very Good) and the relevance as an eLearning tool (Q5, 16% of Good/Very Good). Again, there is a high level of No Answer (between 30% and 44%) in all these questions, perhaps due to the session running late.

It is worth noting however that the post-evaluation question on the search for "people like me" functionality (Q4, only 8% of Poor/Mostly Poor) seems to contradict the participants'

experience while actually doing this task (T2.5 with a 58% of Poor/Mostly Poor responses). This contradiction can be explained by the difference between reporting on this issue on the spot (task T2.5) and by answering a post-evaluation questionnaire (Q4) that tends to focus more on the potential of the system. This was also illustrated by the group discussion at the end of the session, which highlighted the potential of the search "for people like me" despite its usage difficulties.

The analysis of the self-report questionnaires, as well as the observations made during the session by the two facilitators and the final debriefing, highlighted a number of issues to be addressed in the short and longer term future. A detailed breakdown of the reported issues is listed in Appendix A but they can be summarised around four main areas: the timeline representation, the classification of episodes, the search for "people like me" and the question of privacy of information. We now discuss each of these areas.

4.3.1 Timeline Representation and Manipulation

The timeline widget was difficult to handle at first (especially since users start with an empty timeline containing no episodes). It was not clear that you could manipulate the timeline widget ("*there is a lack of indication that the timeline widget can be dragged back and forth, scrolling in time*" – bbk5), neither was the meaning the widget itself clear ("*did not initially understand the purpose of the two bands in the timeline widget*" – bbk1).

But this seems to improve with repeated usage, as indicated by the participants themselves and reflected in the task' self-reports by an improvement in their responses. As participant bbk1 noted, "*Manipulating the 'detailed' timeline by double-clicking on the top 'summary' timeline is quite a good feature*".

Nevertheless, some features such as filtering and highlighting (i.e. visually indicating specific episodes in the timeline based on keywords and categories) and synchronising (i.e. having two simultaneously displayed timelines time-dependent or not) are not always understood:

In the debriefing discussion, several people indicated that they would also benefit from access to alternative modes of visualisation of the timeline, in particular in a more familiar table form. This also raises interesting questions about the possibility of visualising several timelines at the same time (a feature deemed desirable by several participants).

4.3.2 Classification of Episodes

This is a major issue inhibiting the smooth creation and editing of episodes, as every participant experienced some serious problems in classifying episodes: difficulty in finding the relevant element within the taxonomy (a search functionality is present and was found useful but it still relies on the name of the element which, coming from the specific taxonomy we used, may be confusing); mistaking the classification for the title or description of the episode and linguistic/cultural barriers for non-native English speakers. Adding to the difficulty is the fact that the relevance (or even need) for such a classification is not immediately apparent, as it will only become apparent when searching for "people like me".

However, the problem of episode classification seems to be mostly a user interface issue, i.e. a very cumbersome widget. As evidence of this, it is worth mentioning that all participants spent a significant amount of time trying to specify the proper – to the best of their knowledge – classification of their episodes. Every episode in their timelines has been defined with an explicit primary and secondary episode that, after analysis, seems indeed to reflect the intended nature of the participant's episode.

There is no easy solution to the push-and-pull between user-friendly free-text entry and computer-friendly normalised taxonomies, and this is a major topic of improvement to be considered in the longer term. Short term solutions could include:

- Reorganising the episode creation/edit form to prioritise the episode's title and description (i.e. user-driven description) and adding classification as an add-on to the

system (matching will work with default classification values, but more precise classification of episodes will improve discrimination).

- Reducing the depth or width of the classification hierarchies and renaming terms in a more "user-friendly" way.
- Populating the categories with examples given for illustration purposes (i.e. they would not be selectable as a match for the episode, but their parents would be). L4A// users could even be asked to contribute to this examples generation.

4.3.3 Search for "People like me"

The search for "people like me" did not address our expectations of establishing user-centred definitions of "people like me".

Most of the participants took Activity 2 at face value, i.e. selecting some parameters, exploring one or two returned timelines and starting again, with no critical manipulation – and could see no reason to try different combinations, as their first try was giving them some relevant results. From the debriefing, it was clear that they could see what it *could* deliver if applied in a specific real context, but not by its usage in such an artificial situation ("*search needs to be based on aspiration/wish*" – bbk4).

As pointed out by participant bbk3, "*you need to convey the benefit of finding people with similar timelines; this is CRUCIAL: what does it tell me if I find someone who is like me, based on criteria provided? Can I conclude anything from this? Need to create a set of examples to demonstrate how this timeline comparison is useful*".

Two factors seem to have had an impact on the outcome of this task: the "artificialness" of the generated database used for the search purpose (not enough variability) and difficulties in grasping the meaning and purpose of some of the search parameters, notably the "classification depth" and "search method" ("*search methods – rule 1-4 – are not clear*"; "*level of classification not clear at all*" – bbk1, bbk3 and bbk4).

4.3.4 Privacy and Scope of timeline

Finally, it is worth noting that concerns were expressed about privacy issues relating to the timelines and profiles and about potential third-party abuse if the system is used without sufficient control. A lot of personal information entered is seen as unnecessary ("*should be done at more of an arm's length*" – bbk4) or at least there is no hint about its usage ("*in reality, it is not clear what advantage/benefit comes from the need to spend time in filling the timeline. Also there is no hint how detailed the timeline should be filled in*" – bbk3).

5 Community College Hackney Evaluation

The evaluation session at Community College Hackney took place a month after the Birkbeck session. This time gap between the two sessions enabled us to address some of the issues already reported, both from the system's point of view and from running the evaluation itself.

From the system's point of view, several reported bugs (such as data corruption and minor interface usability problems) were fixed in order to provide CCH participants with a seamless interaction with L4A//. The biggest challenge was a reassessment of our aims for the evaluation itself. The negative response to the search for "people like me" experienced at Birkbeck – mainly due to a lack of context for such searches and to the artificialness of the avatars and matching timelines – was expected to occur again, even more so because of the profile of the CCH students (16-to-18 years old, still in formal education, with no or few previous occupational experiences).

We therefore decided to re-orientate the evaluation toward investigations of their aspirations for the future. The first part of the session remained the same as for Birkbeck, i.e. creating their own timeline, as described in Section 3. The second part dropped the explicit investigation of the search for "people like me" and focussed on participants adding episodes representing their wishes for future educational or occupational episodes. The "people like me" feature was maintained by giving them the opportunity to look at what the other participants were specifying as their wishes, i.e. using the search for "people like me" over the participants' timelines rather than over an ad-hoc database of artificial timelines. Our aim was to collect participants' explicit representations of wishes in order to build relevant recommendations of "what to do next" to be used in the future second phase of evaluation.

However, the evaluation itself did not develop according to plan.

First, of the 6 people who were expected to participate in the evaluation session, only 3 turned up (and one of these was 30 minutes late).

Second, the environment turned out to be inadequate for sustaining the participants' interest and motivation, as the session took place in the College's library, which is an open space with free access to books and computing resources that was in full occupation at the time of the session. Participants were frequently interrupted by their friends coming in and out (and armed bouncers patrolling around certainly did not improve their attention).

Third, when presented with the complexity of the timeline as a mechanism to record their pathway to date, and despite an extended presentation of the aims and motivation of the project by the facilitator (NVL), the lack of motivation and proper environment clearly meant that they could not achieve the described tasks, and could not be motivated to try to achieve them. One of the participants even replied to the self-report questionnaires for every task in the script without doing anything more than logging into the system!

In order to avoid a total collapse of the session, it was re-oriented by NVL – unprepared and without a script – into an informal discussion about support for planning learning pathways and the role that systems like L4A// could play. One of the interesting comments made by one of the participants (from an ethnic minority background) was regarding the necessity of maintaining an *informal* approach if such system was to be appealing for them. The participant described any career advice service as "part of the enemy", i.e. the whole institutional apparatus that "maintains them in low-paid jobs" and in "deprived" educational institutions.

6 Conclusions

The following are recommendations for addressing some of the problems highlighted during the two evaluation sessions.

On the evaluation process:

1. Improving the partnership with the Birkbeck and CCH partners hosting the evaluation sessions, as the motivation for participants hugely relies on how they have been recruited and prepared for participating in the session.

On the L4A// system:

2. Improving first-time access to the system: adding quick help for the manipulation of the timeline widget, adding an automatic initial episode (such as "first joined L4A// network"), improving the descriptions and labels in several forms (see Appendix A);
3. Adding alternative representation(s) of the timeline, with a tabular solution being a first possibility. From a technical point of view, deploying one (or several) alternative visualisations of timelines may not be difficult, as the XML format used for the data structure and the existence of well-established transformation mechanisms such as XSLT will support this task. The main problem will be to support the manipulation of these alternative visualisations and in particular our aims of presenting simultaneously several timelines as a way of supporting comparison and appropriation.
4. Improving the search for "people like me" functionality by making it more contextualised. This is a major issue that we plan to address for the next Evaluation phase by the introduction of the "what to do next" feature, which uses the search/ranking approach in a specific context.

7 Way Forward

The Advisory Team (AT) meeting held at the London Knowledge Lab on the 30/04/2008 was instrumental in refocusing our ongoing work on the “recommendation” mechanism. In particular, two considerations arose from that meeting. Firstly, the terminology used for this facility needs to be carefully reconsidered: “recommendation” is a strong term related with career advice, which is definitively not what the L4All system aims to provide. A more neutral term – such as “what next” – may be more appropriate, especially since the mechanism we are proposing to implement will only support the user in exploring others’ timelines in a particular way (i.e. “*this is what people have done after following a pathway similar to yours; why not consider a similar future?*”). Secondly, the source of information to use for this “what next” functionality needs to be feasible from a pragmatic viewpoint. As mentioned in Deliverable D4.1 (Section 5.2), our initial aim was to provide a template-based version of a timeline, not representing full timeline information, but consisting of a chain of episodes that could be viewed as a sequence of prerequisites and a final goal. Such an approach may be adequate in overcoming the lack of formal connections between episodes within timelines, but does it does however have practical limitations in the sense that it needs significant expert effort in building up a repository of such templates for the full learner community. The recommendation from the AT meeting on 30/04/2008 was to leverage instead the repository of users’ own timelines in order to present possibilities of “what next” to individual users, building on the timeline alignment mechanism described in Deliverable D4.1.

As a consequence, it was proposed that the second Evaluation phase should focus on this “what next” functionality. An evaluation session will be organised in turn with groups of learners from each of the partners (Birkbeck, Community College Hackney, and the Linking London Lifelong Learning Network), aiming to recruit 3 students from each partner institution to take part in a face-to-face session with researchers from the MyPlan team in order to discuss their future learning and career plans, and assess the potential usefulness of the L4All system to them in their planning. Before each session, the following will be undertaken:

- Collecting the 3 students’ learning and career information to date and creating a timeline for them in the L4All system.
- Collecting learning and career information from former students who have studied on the same course(s) at the institution as the 3 recruited students, in order to build a repository of suitable timelines to support the “what next” functionality for these 3 students (to build up this information, each partner can contact alumni to collect information about what they have done before and after their course at that institution).
- Using expert input from tutors at the three partner institutions in order to adapt the collected information from the alumni and to build up a repository of suitable timelines that has a sufficient “match” with the 3 students’ timelines for supporting the “what next” functionality.

Each face-to-face session will consist of three parts: an interview with the student aiming at elicitation of their wishes and expectations for their future learning and career progression; a hands-on part using the L4All system to access and update their timeline, to search over other users’ timelines, and to use the “what next” feature; and a final interview aiming to elicit how this hands-on interaction with the L4All system has affected their approach to planning their future learning and career progression, and their views of the potential usefulness of the system.

In order to achieve this second Evaluation phase, the two following months (May and June) will concentrate on deploying the alignment of timelines and their visualisation within the L4All prototype. Most of the back-end (similarity metrics, searching and selecting timelines) and front-end (single and dual visualisation of timelines) to support the “what next” functionality is already in place. The bulk of the development will reside on the necessary

adaptation of the alignment mechanism to the timeline's specificities, e.g. selecting the most appropriate alignment, filtering out irrelevant episodes (e.g. personal episodes), defining the range of parameterisation of the mechanism (e.g. level of classification), and visualising the possible future pathways.

Appendix A – Reported Issues

Below is a list of all identified issues arising from the first evaluation phase with Birkbeck and CCH participants. When appropriate, the identifier of the participant is indicated; if none, the issue has been observed by the facilitators.

For each issue, we also indicate when and how it will be fixed:

- **FIXED** indicates short-term issues to be solved in time for the next phase of the evaluation, in the summer of 2008.
- **TO DO** indicates long-term issues that need to be investigated but may not be addressed in the lifespan of the project
- **HELP** indicates issues that can be solved by either improving the online help within the L4A// system or, in the context of the evaluations, by better tutoring support provided by the facilitators.

Overall System

- | | |
|--|--------------|
| 1. There are problems with the language used in the interface: too much "techies" jargon, too ambiguous in places. For example: <ol style="list-style-type: none">a. the term "episode" was often not understood ("event" may be better)b. "start" and "end" dates are not appropriate for all types of episode, especially past and present ("from" and "to" may be better)c. "Location" in the user profile is not clear. "My current location / my postcode" would be betterd. The descriptions in the help box in several forms are wrong or simply missing (cf. "Past learning experience"). | FIXED |
| 2. It may be a good idea to have a tutorial for new users, with a dummy "model" timeline, to briefly present the concepts and interface, before having them creating their own timeline (bbk3). An introductory text for the site/page may be enough for first-time users (bbk1,bbk4) | HELP |
| 3. Some participants experienced problems with their timeline being data-corrupted and will not display at all. | FIXED |
| 4. The intended sequence of actions in L4A// (i.e. first create/modify your personal details, then edit your learning/work experience, then edit your timeline) should be made more clear at the interface. | FIXED |
| 5. The organisation of the menus should be made clearer, with a clear distinction between functionalities (modify details, search, etc.) and visualisation (scale and colour of timeline, etc.). | FIXED |
| 6. It is not clear to users what advantages/benefits come from the need to spend time in filling their timeline. Also there is no hint of how detailed the timeline should be filled in (bbk3) | HELP |
| 7. The "help" option to be completed (bbk3). Could also benefit from some sort of "tooltip" for the commands and widgets (bbk9). | TO DO |

Layout and GUI

- | | |
|--|--------------|
| 8. The layout of the L4All system is problematic on a small screen such as in Birkbeck's B12 lab used for the evaluation session. The main page just fits in the screen but the left (menu) and right (bookmarks) columns seriously limit the width of the timeline widget. Moreover, when displaying two timelines simultaneously, the need to scroll down to see both timelines and the user's profile is a bit difficult. | TO DO |
| 9. In the edit popup windows (details, background, new episode, etc.), the "close" button (i.e. closing the popup WITHOUT saving) is too close to the "save" button, resulting in many participants losing data unexpectedly. | FIXED |
| 10. The popup windows are satisfactory in terms of size and usage but there is a problem with the similarity search: when a returned timeline is selected, the search popup is sent to the background (to show the timeline now displayed in the main widget) but a few students believed the popup to be closed and had to start the search again. | TO DO |
| 11. The "bookmarks" section can be closed but cannot be opened again (bbk8). | FIXED |

External Representation of the Timeline

- | | |
|--|--------------|
| 12. The initial display parameters of the timeline (month scale, 200pt wide, centred on today's date) leave newly added episodes outside of the visible part (some participants started with episode 30 years ago!). | TO DO |
| 13. When first logging into L4All, the timeline widget is empty, as no episode has been added yet. The widget has therefore no obvious meaning to the new user. | FIXED |
| 14. The timeline filters did not make sense at first and seemed to be more highlighting than filtering (bbk1) | TO DO |
| 15. There is a lack of indication that the timeline widget can be dragged back and forth, scrolling in time. (bbk5) | FIXED |
| 16. Did not initially understand the purpose of the two bands in the timeline widget (bbk1) | HELP |
| 17. Manipulating the 'detailed' timeline by double-clicking on the top 'summary' timeline is quite a good feature (bbk1) | |
| 18. It may be interesting to see more than two timelines at the same time (bbk1) | TO DO |
| 19. Once a second timeline is displayed, the purpose of the "synchronise" option is unclear (bbk3). | HELP |

Registration Procedure

- | | |
|--|--------------|
| 20. Tabbing between fields is not working (bbk1,bbk4,bbk6) | FIXED |
| 21. All registration fields are mandatory; the note about "bold" fields is superfluous (bbk3). | FIXED |
| 22. The icons used to indicate mandatory fields, errors and correct should be explained (bbk8). | FIXED |
| 23. There is no guide about how to choose your user identifier and password (e.g. "there should be at least X characters") (bbk8). | FIXED |

24. After registration, there are no hints about what to do next (bbk4). **HELP**

Profile Modification

25. Parts of the information in the "Personalise / My Timeline" are not properly saved or returned in the form (bbk3, bbk4, bbk5). **FIXED**
26. "My Background – Needs": can only select one learning method **TO DO**
27. "My Background – Needs": data validation on budget not working, crashing the system. **FIXED**
28. There should be more drop-down options for other qualifications (bbk1) **TO DO**
29. The purpose of "Future Learning Needs" part of the profile is unclear (bbk3).` **TO DO**
30. The "about me" part seems to be unfinished (bbk3), does not contain enough options (bbk4). **TO DO**
31. In the "Personalise / My Timeline", it is problematic to suggest user will die in 2030! (bbk3) **FIXED**
32. In the classification popup (e.g. for a present occupation), **FIXED**
- a. When the search item fails to find an appropriate element, the "no node found" is not very user-friendly (bbk4).
 - b. There is no "select/OK" button, need to double-click is not intuitive (bbk4)

Adding Episode to the Timeline

33. What is the purpose of the URL field? (bbk3). **HELP**
34. When the "create episode" fails because of missing information, the error message is not consistent with the rest of the application. **FIXED**
- a. Returning to the initial form loses all entered information (bbk3).
35. The distinction between "I have done that episode" and "I wish to do that episode" is not clear. **FIXED**
- a. The "nature" option does not seem to be context sensitive (bbk1)
36. The calendar, despite being acknowledged as a "standard" widget is difficult to use, especially when you have to set a date a long time in the future or in the past. **TO DO**
- a. May be easier just to be able to enter the date (bbk2,bbk4, bbk5)
 - b. When adding a "start" date, the "end" date should be automatically set to this one, not today's (bbk1, bbk5)
37. For courses or degrees, there is no option for indicating whether the course is under way or was not finished (bbk1) **TO DO**
- a. Option to select "up to current date", in particular for current job (bbk3)
38. When selecting an episode category from the list, it is easy NOT to see the scrollable list and miss the personal and other categories (bbk5). **TO DO**
39. When editing a new episode, the system crashes if all mandatory fields are not properly entered. **FIXED**

Classification of Episode

- | | |
|--|--------------|
| 40. Several participants pointed out that the classifications, while presenting the main categories, do not contain examples of what the category relates to. The search functionality in the classification browser is fine but will be better if searching was also based on these examples. | TO DO |
| 41. Episode classifications are, in general, difficult to understand. It is not necessarily clear which element corresponds to the user's episode. Ambiguities between items are hard to figure out. | TO DO |
| 42. School episodes, as all educational ones, have both a qualification and subject classification; the latter is definitively not applicable (bbk4) | TO DO |
| 43. Classifications not easy for foreign students (bbk4) | TO DO |
| 44. "Unknown" element is not enough; there is a need for "none" (bbk4). | TO DO |
| 45. For educational episode other than "obtained a degree/diploma", the qualification classification is irrelevant or ambiguous: does it relate to the objective of the episode or to its requirement? | TO DO |

Similarity search

- | | |
|---|--------------|
| 46. You need to convey the benefit of finding people with similar timelines; this is CRUCIAL (bbk3) <ul style="list-style-type: none">a. What does it tell me if I find someone who is like me, based on criteria provided?b. Can I conclude anything from this?c. Need to create a set of examples to demonstrate how this timeline comparison is useful | TO DO |
| 47. The search form is not clear (bbk1, bbk3). | FIXED |
| 48. The initial information for returned timelines is not very specific; only opening the timelines in the widget will be useful (bbk4). | TO DO |
| 49. Could not see the ranking of timelines (bbk3). | TO DO |
| 50. Search needs to be based on aspiration/wish (bbk4). | TO DO |
| 51. Search should take learning interests and hobbies into account (bbk2) | TO DO |
| 52. Search methods (rules 1-4) are not clear (bbk1,bbk3,bbk4) | TO DO |
| 53. Level of classification not clear at all (bbk1,bbk3,bbk4) | TO DO |
| 54. See the point of searching for people but what about linking it to the search of appropriate courses? (bbk1) | TO DO |

Appendix B – Evaluation Handout (Birkbeck)

L4AII Evaluation Activity 1 – Create your own timeline

Tasks (25 minutes)

Task 1. Launch L4AII

Start your web browser and connect to the L4AII system, using the shortcut provided on your desktop (or by going to the following URL: <http://l4a11.dcs.bbk.ac.uk:8080/l4a11-v4/>)

Task 2. Register as a new user and start L4AII

Go to the registration page of the L4AII system and create a new user.

Your username for this session is: **userbbk10**

Your password for this session is: **bbk**

| | Very easy | Easy | Mixed feelings | Difficult | Very difficult |
|--|-----------|------|----------------|-----------|----------------|
| Access to the login page is | | | | | |
| Access to the registration page is | | | | | |
| Using the registration form is | | | | | |
| Understanding the required information in the registration form is | | | | | |

Any other comments you wish to make:

Task 3. Acquaintance with L4AII interface

After registration, log in to the system and access the main page of the L4AII system.

| | Very easy | Easy | Mixed feelings | Difficult | Very difficult |
|--|-----------|------|----------------|-----------|----------------|
| Understanding the layout of the main page is | | | | | |
| Identifying the various elements in the main page is | | | | | |
| Understanding and manipulating the timeline is | | | | | |

Any other comments you wish to make:

Task 4. Complete the information in your profile

The registration asked you basic information necessary for creating a user profile in the L4AII system.

Please now complete your profile by detailing your personal information, background and learning preferences. Note that the information stored in the system will be kept confidential. However, if you are not happy with giving personal information such as your year of birth or postcode, use dummy information.

| | Very easy | Easy | Mixed feelings | Difficult | Very difficult |
|---|-----------|------|----------------|-----------|----------------|
| Accessing the different parts of my profile is | | | | | |
| Using the command menu is | | | | | |
| Using the profile editor is | | | | | |
| Understanding the information required in the profile editor is | | | | | |

Any other comments you wish to make:

Task 5. Specify the 2 most important events in your educational experience

Your timeline contains information about the sequence of important events in your life.

Start building up your own timeline by defining your two most important educational episodes (e.g. the most recent or the highest qualifications obtained).

Note how these episodes are added to your timeline in the main page of the system. Check how these episodes can be modified if necessary.

| | Very easy | Easy | Mixed feelings | Difficult | Very difficult |
|--|-----------|------|----------------|-----------|----------------|
| Understanding the difference between my profile and my timeline is | | | | | |
| Finding out how to create a new episode for my timeline is | | | | | |
| Understanding the different categories of episode is | | | | | |
| Using the episode editor is | | | | | |
| Understanding and manipulating the timeline is | | | | | |

Any other comments you wish to make:

Task 6. Specify the 2 most important events in your personal experience

Continue building up your timeline by defining your two most important personal episodes (e.g. the most recent or the most significant given your current situation).
 Note how these episodes are added to your timeline in the main page of the system.

| | Very easy | Easy | Mixed feelings | Difficult | Very difficult |
|--|-----------|------|----------------|-----------|----------------|
| Understanding the different categories of episode is | | | | | |
| Using the episode editor is | | | | | |
| Understanding and manipulating the timeline is | | | | | |

Any other comments you wish to make:

Task 7. Specify your current occupation

Finish building your timeline by defining your current occupation.
 Note how this episode is added to your timeline in the main page of the system.
 Note that this information is also present in your profile and may need to be modified as well.

| | Very easy | Easy | Mixed feelings | Difficult | Very difficult |
|--|-----------|------|----------------|-----------|----------------|
| Understanding the difference between my profile and my timeline is | | | | | |
| Understanding the different categories of episode is | | | | | |
| Using the episode editor is | | | | | |
| Understanding and manipulating the timeline is | | | | | |

Any other comments you wish to make:

L4AI Evaluation

Activity 2 – Search for "People like me"

Tasks (25 minutes)

Task 1. What is your definition of "people like me"?

The central aspect of the L4AI system is to offer users the possibility to search for "people like me". In order to find aspiration and role models for personal development. The current L4AI system uses only a limited number of parameters to search for "people like me". It would help us to improve the system if you could give us YOUR definition of "people like me", using the form below.
 Feel free to add any additional search information you think should be supported.

Profile

- | | |
|--|--|
| <input type="checkbox"/> My age (within ___ years) | <input type="checkbox"/> My Gender |
| <input type="checkbox"/> My qualification | <input type="checkbox"/> My occupation |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

Learning Episodes

- | | | | |
|----------------------------------|----------------------------------|-------------------------------------|----------------------------------|
| <input type="checkbox"/> School | <input type="checkbox"/> College | <input type="checkbox"/> University | <input type="checkbox"/> School |
| <input type="checkbox"/> College | <input type="checkbox"/> College | <input type="checkbox"/> College | <input type="checkbox"/> College |

Occupational Episodes

- | | | | |
|----------------------------------|-------------------------------------|------------------------------------|-----------------------------------|
| <input type="checkbox"/> Work | <input type="checkbox"/> Business | <input type="checkbox"/> Voluntary | <input type="checkbox"/> Military |
| <input type="checkbox"/> Retired | <input type="checkbox"/> Unemployed | | |

Personal Episodes

- | | | | |
|----------------------------------|----------------------------------|------------------------------------|-------------------------------------|
| <input type="checkbox"/> Moved | <input type="checkbox"/> Travel | <input type="checkbox"/> Child | <input type="checkbox"/> Adoption |
| <input type="checkbox"/> Death | <input type="checkbox"/> Married | <input type="checkbox"/> Separated | <input type="checkbox"/> Disability |
| <input type="checkbox"/> Illness | | | |

Other Episodes

- | | |
|--------------------------------|--------------------------------|
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |
| <input type="checkbox"/> _____ | <input type="checkbox"/> _____ |

Other criteria

- Limited to the last ___ episodes of my timeline
- Ignore my personal episodes
- _____
- _____
- _____
- _____

Any other comments you wish to make:

Task 2. Log off and re-enter L4AII

Log off L4AII and go back to the main page of the system.
You will be now using L4AII by assuming the identity of an existing user.
Go to the login page and enter L4AII with the following Identity:

- Your username : **birkbeck2**
- Your password : **bbk**

Task 3. Explore your new identity

Take some time to find out about your assumed identity.
In particular, have a look on your profile and your timeline.
Check the different episodes and the overall picture that the timeline is telling you.

Task 4. Search for "people like me"

Investigate the "people like me" option of the L4AII system:
Use the different parameters of the search form to build your own definition of "people like me".
Check how the L4AII system is trying to find different "people like me" depending on your choice of input parameters
Check how the results returned by the system are indeed similar (or dissimilar) to your avatar by displaying their timelines in parallel to yours.
Repeat the selection of parameters and the search for "people like me" for as long as you need in order to have a good idea of how the search operates.

Task 5. Report on the search for "people like me"

After having used the search facility, please tell us what is – in your opinion – the most useful combination of search parameters.
Please tick the parameters making up this configuration:

- Profile**
- My age (within ____ years) My Gender
 My qualification My occupation
- Learning Episodes**
- School College University School
 College College College College
- Occupational Episodes**
- Work Business Voluntary Military
 Retired Unemployed
- Personal Episodes**
- Moved Travel Child Adoption
 Death Married Separated Disability
 Illness
- Other Episodes**
- _____ _____ _____ _____
- Episode Classification at**
- level 1 level 2 level 3 level 4
- Search with**
- rule 1 rule 2 rule 3 rule 4

Please reply to these questions about the search for "people like me", on the scale 0 (I strongly disagree) to 4 (I totally agree).

| | 0 | 1 | 2 | 3 | 4 |
|--|---|---|---|---|---|
| I find the results representative of the search | | | | | |
| I find the results useful | | | | | |
| I understand why the returned timelines are "similar" to my avatar | | | | | |
| The ranking of the timelines is useful | | | | | |
| The ranking of the timelines is appropriate | | | | | |

Among the results, these three timelines are the most "similar" to my avatar (explain why in your own words):

| | |
|-------------|-------------|
| Timeline 1: | Timeline 2: |
| Timeline 3: | |

Any other comments you wish to make:

L4AII Evaluation Activity 3 – Feedback Questionnaire

About the L4AII System

| | |
|--|--------------------------|
| Navigating through the L4ALL System is | |
| very easy | <input type="checkbox"/> |
| easy | <input type="checkbox"/> |
| mixed feelings | <input type="checkbox"/> |
| difficult | <input type="checkbox"/> |
| very difficult | <input type="checkbox"/> |
| Accuracy of descriptions on screen is | |
| very good | <input type="checkbox"/> |
| mostly good | <input type="checkbox"/> |
| mixed quality | <input type="checkbox"/> |
| mostly poor | <input type="checkbox"/> |
| very poor | <input type="checkbox"/> |
| Knowing what to do next is | |
| very difficult | <input type="checkbox"/> |
| difficult | <input type="checkbox"/> |
| mixed feelings | <input type="checkbox"/> |
| easy | <input type="checkbox"/> |
| very easy | <input type="checkbox"/> |
| Navigating the profile and timelines information is | |
| very easy | <input type="checkbox"/> |
| easy | <input type="checkbox"/> |
| mixed feelings | <input type="checkbox"/> |
| difficult | <input type="checkbox"/> |
| very difficult | <input type="checkbox"/> |
| The response time of the system is | |
| very good | <input type="checkbox"/> |
| mostly good | <input type="checkbox"/> |
| mixed feelings | <input type="checkbox"/> |
| mostly poor | <input type="checkbox"/> |
| very poor | <input type="checkbox"/> |
| The reliability of the system is | |
| very good | <input type="checkbox"/> |
| mostly good | <input type="checkbox"/> |
| mixed feelings | <input type="checkbox"/> |
| mostly poor | <input type="checkbox"/> |
| very poor | <input type="checkbox"/> |

About the Registration / Profile

The registration process is

| | |
|----------------|--|
| very difficult | |
| difficult | |
| mixed feelings | |
| easy | |
| very easy | |

The profile and learning preferences edit process is

| | |
|----------------|--|
| very difficult | |
| difficult | |
| mixed feelings | |
| easy | |
| very easy | |

About the Timeline / Episodes

Understanding the timeline is

| | |
|----------------|--|
| very easy | |
| easy | |
| mixed feelings | |
| difficult | |
| very difficult | |

Manipulating the timeline is

| | |
|----------------|--|
| very easy | |
| easy | |
| mixed feelings | |
| difficult | |
| very difficult | |

Adding / modifying episodes to the timeline is

| | |
|----------------|--|
| very easy | |
| easy | |
| mixed feelings | |
| difficult | |
| very difficult | |

Viewing several timelines at the same time is

| | |
|----------------|--|
| very useful | |
| useful | |
| mixed feelings | |
| little useful | |
| no useful | |

Search for "people like me"

Making a search is

| | |
|----------------|--|
| very difficult | |
| difficult | |
| mixed feelings | |
| easy | |
| very easy | |

Understanding the results is

| | |
|----------------|--|
| very easy | |
| easy | |
| mixed feelings | |
| difficult | |
| very difficult | |

The structure of the information about timelines is

| | |
|----------------|--|
| very good | |
| mostly good | |
| mixed feelings | |
| mostly poor | |
| very poor | |

The ranking of similar timelines is

| | |
|----------------|--|
| very useful | |
| useful | |
| mixed feelings | |
| little useful | |
| no useful | |

Conclusion

Do you find the system as an eLearning tool to be used on your own

| | |
|----------------|--|
| very useful | |
| useful | |
| mixed feelings | |
| little useful | |
| no useful | |

Do you find the system as an eLearning tool to be used within an educational institution

| | |
|----------------|--|
| very useful | |
| useful | |
| mixed feelings | |
| little useful | |
| no useful | |

Appendix C – Questionnaire Breakdown (Birkbeck)

Questions were ranked according to the following scheme:

| | |
|-----------------------------------|----------|
| Very easy / Very good | 0 |
| Easy / Mostly good | 1 |
| Mixed feelings | 2 |
| Difficult / Mostly poor | 3 |
| Very Difficult / Very poor | 4 |

(*) indicate questions with answers put in different order (from 4 to 0) - answers have been reversed for homogeneity

(**) indicate questions with answers from **I strongly disagree** (0) to **I totally agree** (4)

| | userbbk1 | userbbk2 | userbbk3 | userbbk4 | userbbk5 | userbbk6 | userbbk7 | userbbk8 | userbbk9 | 0 | 1 | 2 | 3 | 4 | n/a |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|---|---|---|---|-----|
| T1.2 | | | | | | | | | | | | | | | |
| Access to the login page is | 0 | 1 | | 0 | 1 | 0 | 2 | 1 | 0 | 4 | 3 | 1 | 0 | 0 | 1 |
| Access to the registration page is | 0 | | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 6 | 2 | 0 | 0 | 0 | 1 |
| Using the registration form is | 0 | | 1 | 1 | 1 | 1 | 0 | 2 | 0 | 3 | 4 | 1 | 0 | 0 | 1 |
| Understanding the required information in the registration form is | 0 | | 1 | 0 | 1 | 0 | | 2 | 0 | 4 | 2 | 1 | 0 | 0 | 2 |
| T1.3 | | | | | | | | | | | | | | | |
| Understanding the layout of the main page is | 2 | 1 | 2 | 0 | | 0 | 1 | | 3 | 2 | 2 | 2 | 1 | 0 | 2 |
| Identifying the various elements in the main page is | 0 | 2 | | 0 | | 0 | | | 3 | 3 | 0 | 1 | 1 | 0 | 4 |
| Understanding and manipulating the timeline is | | 3 | | 2 | | 0 | 2 | | 3 | 1 | 0 | 2 | 2 | 0 | 4 |
| T1.4 | | | | | | | | | | | | | | | |
| Accessing the different parts of my profile is | 1 | 2 | | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 5 | 1 | 0 | 0 | 1 |
| Using the command menu is | 0 | 3 | | 0 | 1 | 0 | 0 | 2 | 1 | 4 | 2 | 1 | 1 | 0 | 1 |
| Using the profile editor is | 1 | 3 | | 1 | 1 | 0 | | 1 | 1 | 1 | 5 | 0 | 1 | 0 | 2 |
| Understanding the information required in the profile editor is | 2 | 3 | | 1 | 2 | 2 | | 2 | 3 | 0 | 1 | 4 | 2 | 0 | 2 |
| T1.5 | | | | | | | | | | | | | | | |
| Understanding the difference between my profile and my timeline is | 2 | 3 | | 0 | | 0 | 1 | 2 | 3 | 2 | 1 | 2 | 2 | 0 | 2 |
| Finding out how to create a new episode for my timeline is | 0 | 3 | | 1 | | 0 | 1 | 4 | 1 | 2 | 3 | 0 | 1 | 1 | 2 |
| Understanding the different categories of episode is | 0 | 3 | | 1 | | 0 | | 4 | 1 | 2 | 2 | 0 | 1 | 1 | 3 |
| Using the episode editor is | 0 | 3 | | 1 | | 0 | 0 | 1 | 1 | 3 | 3 | 0 | 1 | 0 | 2 |
| Understanding and manipulating the timeline is | 3 | 3 | | 4 | | 2 | 2 | | 2 | 0 | 0 | 3 | 2 | 1 | 3 |
| T1.6 | | | | | | | | | | | | | | | |

| | userbbk1 | userbbk2 | userbbk3 | userbbk4 | userbbk5 | userbbk6 | userbbk7 | userbbk8 | userbbk9 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Understanding the different categories of episode is | 0 | 2 | 1 | | | 0 | 1 | 1 | 0 |
| Using the episode editor is | 0 | 3 | 3 | | | 0 | 1 | 1 | 0 |
| Understanding and manipulating the timeline is | 0 | 2 | 3 | | 2 | 0 | 1 | 3 | 1 |
| T1.7 | | | | | | | | | |
| Understanding the difference between my profile and my timeline is | 2 | 2 | 2 | | | 0 | 1 | | 0 |
| Understanding the different categories of episode is | 0 | 2 | 2 | | | 0 | 1 | 1 | |
| Using the episode editor is | 1 | 2 | 2 | | | 0 | 1 | 1 | |
| Understanding and manipulating the timeline is | 0 | 2 | 2 | | | 0 | 1 | | |
| T2.5 | | | | | | | | | |
| I find the results representative of the search (**) | 4 | 3 | | 4 | 2 | 0 | | | 3 |
| I find the results useful (**) | 3 | 3 | 0 | 3 | 2 | 2 | 3 | | 3 |
| I understand why the returned timelines are "similar" to my avatar (**) | 3 | 2 | 3 | 3 | 3 | 0 | 3 | | 3 |
| The ranking of the timelines is useful (**) | 3 | 3 | | 3 | 3 | 0 | 4 | | 3 |
| The ranking of the timelines is appropriate (**) | 3 | 3 | | 2 | 3 | 2 | 4 | | 3 |
| Q1 - About the L4All System | | | | | | | | | |
| Navigating through the L4ALL System is | 2 | 2 | 2 | 1 | | 2 | | | 3 |
| Accuracy of descriptions on screen is | 2 | 1 | 2 | 2 | | 2 | | | 2 |
| Knowing what to do next is (*) | 2 | 2 | 4 | 2 | | 1 | | | 4 |
| Navigating the profile and timelines information is | 1 | 2 | 2 | 4 | 2 | 3 | | | 3 |
| The response time of the system is | 0 | 1 | 1 | 0 | 0 | 0 | | | 1 |
| The reliability of the system is | 2 | 1 | | 2 | | 0 | | | 2 |
| Q2 - About the Registration / Profile | | | | | | | | | |
| The registration process is (*) | 1 | 2 | 1 | 0 | 1 | 0 | | | 0 |
| The profile and learning preferences edit process is (*) | 2 | 2 | | 0 | | 3 | | | 3 |
| Q3 - About the Timeline / Episodes | | | | | | | | | |
| Understanding the timeline is | 1 | 1 | 1 | 3 | | 0 | | | 3 |
| Manipulating the timeline is | 0 | 1 | | 2 | | 2 | | | 1 |
| Adding / modifying episodes to the timeline is | 0 | 1 | | 2 | 1 | 0 | | | 0 |
| Viewing several timelines at the same time is | 1 | 1 | | 0 | 1 | 2 | | | 1 |

| 0 | 1 | 2 | 3 | 4 | n/a |
|---|---|---|---|---|-----|
| 3 | 3 | 1 | 0 | 0 | 2 |
| 3 | 2 | 0 | 2 | 0 | 2 |
| 2 | 2 | 2 | 2 | 0 | 1 |
| | | | | | |
| 2 | 1 | 3 | 0 | 0 | 3 |
| 2 | 2 | 2 | 0 | 0 | 3 |
| 1 | 3 | 2 | 0 | 0 | 3 |
| 2 | 1 | 2 | 0 | 0 | 4 |
| | | | | | |
| 1 | 0 | 1 | 2 | 2 | 3 |
| 1 | 0 | 2 | 5 | 0 | 1 |
| 1 | 0 | 1 | 6 | 0 | 1 |
| 1 | 0 | 0 | 5 | 1 | 2 |
| 0 | 0 | 2 | 4 | 1 | 2 |
| | | | | | |
| 0 | 1 | 4 | 1 | 0 | 3 |
| 0 | 1 | 5 | 0 | 0 | 3 |
| 0 | 1 | 3 | 0 | 2 | 3 |
| 0 | 1 | 3 | 2 | 1 | 2 |
| 4 | 3 | 0 | 0 | 0 | 2 |
| 1 | 1 | 3 | 0 | 0 | 4 |
| | | | | | |
| 3 | 3 | 1 | 0 | 0 | 2 |
| 1 | 0 | 2 | 2 | 0 | 4 |
| | | | | | |
| 1 | 3 | 0 | 2 | 0 | 3 |
| 1 | 2 | 2 | 0 | 0 | 4 |
| 3 | 2 | 1 | 0 | 0 | 3 |
| 1 | 4 | 1 | 0 | 0 | 3 |

| | userbbk1 | userbbk2 | userbbk3 | userbbk4 | userbbk5 | userbbk6 | userbbk7 | userbbk8 | userbbk9 |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Q4 - Search for "people like me" | | | | | | | | | |
| Making a search is (*) | 1 | 1 | 3 | 2 | | 3 | | | 1 |
| Understanding the results is | 2 | 1 | 4 | 2 | | 2 | | | 1 |
| The structure of the information about timelines is | 1 | 2 | 2 | 2 | | 1 | | | 2 |
| The ranking of similar timelines is | 0 | 0 | | 1 | | 1 | | | 1 |
| Q5 - Conclusion | | | | | | | | | |
| Do you find the system as an eLearning tool to be used on your own | 2 | 2 | | 2 | | 3 | | | 3 |
| Do you find the system as an eLearning tool to be used within an educational institution | 0 | 1 | | 1 | | 3 | | | 3 |

| 0 | 1 | 2 | 3 | 4 | n/a |
|---|---|---|---|---|-----|
| | | | | | |
| 0 | 3 | 1 | 2 | 0 | 3 |
| 0 | 2 | 3 | 0 | 1 | 3 |
| 0 | 2 | 4 | 0 | 0 | 3 |
| 2 | 3 | 0 | 0 | 0 | 4 |
| | | | | | |
| 0 | 0 | 3 | 2 | 0 | 4 |
| 1 | 2 | 0 | 2 | 0 | 4 |

Appendix D – Episode Classifications

The following tables reproduce the content (identifier and description) of the different classifications used for further discrimination of episodes (see Deliverable D4.1). They cover the qualification, discipline, job description and activity sector of any relevant episode.

Qualification

Qualification is used as a primary classification for all educational episodes: school, college, university, course and degree. They have been extracted from the *National Qualification Framework (NQF)*.

| ID | | | | National Qualification Framework (NQF) |
|---------|---------|--|--|--|
| 0.0.0.0 | | | | Unknown |
| 1.0.0.0 | | | | Entry Level Certificate |
| 2.0.0.0 | | | | NQF Level 1 |
| | 2.1.0.0 | | | GCSE grades D-G |
| | 2.2.0.0 | | | BTEC Introductory Diploma and Certificate |
| | 2.3.0.0 | | | NVQ Level 1 |
| 3.0.0.0 | | | | NQF Level 2 |
| | 3.1.0.0 | | | GCSE grades A*-C |
| | 3.2.0.0 | | | Intermediate GNVQ |
| | 3.3.0.0 | | | NVQ Level 2 |
| | 3.4.0.0 | | | BTEC First Diploma and Certificate |
| | 3.5.0.0 | | | Key Skills Level 2 |
| 4.0.0.0 | | | | NQF Level 3 |
| | 4.1.0.0 | | | A-level |
| | 4.2.0.0 | | | AVCE |
| | 4.3.0.0 | | | BTEC National Diploma, Certificate and Award |
| | 4.4.0.0 | | | BTEC Diploma in Foundation Studies |
| | 4.5.0.0 | | | Advanced GNVQ |
| | 4.6.0.0 | | | Access to Higher Education Level 3 |
| | 4.7.0.0 | | | NVQ Level 3 |
| 5.0.0.0 | | | | NQF Level 4 |
| | 5.1.0.0 | | | Certificate of Higher Education |
| 6.0.0.0 | | | | NQF Level 5 |
| | 6.1.0.0 | | | Foundation Degree |
| | 6.2.0.0 | | | Bachelor Degree |
| | 6.3.0.0 | | | Diploma of Higher Education |
| | 6.4.0.0 | | | BTEC Higher National Diploma |
| 7.0.0.0 | | | | NQF Level 6 |

| ID | | | | National Qualification Framework (NQF) |
|---------|---------|--|--|--|
| | 7.1.0.0 | | | Bachelor Degree (with Honors) |
| | 7.2.0.0 | | | Graduate Certificate |
| | 7.3.0.0 | | | Graduate Diploma |
| 8.0.0.0 | | | | NQF Level 7 |
| | 8.1.0.0 | | | Master Degree |
| | 8.2.0.0 | | | Postgraduate Certificate |
| | 8.3.0.0 | | | Postgraduate Diploma |
| 9.0.0.0 | | | | NQF Level 8 |
| | 9.1.0.0 | | | Doctorate |

Discipline

Discipline is used as a secondary classification for all educational episodes: school, college, university, course and degree. They have been extracted from the Labour Force Survey's *Subject of Degree (SBJ)*. Note that episodes are assumed to refer to one discipline only. Support for multi-disciplinary or cross-domain episodes is not yet considered.

| ID | | | | Subject of Degree (SBJ) |
|---------|---------|--|--|---------------------------------------|
| 0.0.0.0 | | | | Unknow |
| 1.0.0.0 | | | | Medicine and Dentistry |
| | 1.1.0.0 | | | Pre-clinical Medicine |
| | 1.2.0.0 | | | Pre-clinical Dentistry |
| | 1.3.0.0 | | | Clinical Medicine |
| | 1.4.0.0 | | | Clinical Dentistry |
| | 1.9.0.0 | | | Other in Medicine and Dentistry |
| 2.0.0.0 | | | | Subjects allied to Medicine |
| | 2.1.0.0 | | | Anatomy, Physiology and Pathology |
| | 2.2.0.0 | | | Pharmacology, Toxicology and Pharmacy |
| | 2.3.0.0 | | | Complementary Medicine |
| | 2.4.0.0 | | | Nutrition |
| | 2.5.0.0 | | | Ophthalmics |
| | 2.6.0.0 | | | Aural and Oral Sciences |
| | 2.7.0.0 | | | Nursing |
| | 2.8.0.0 | | | Medical Technology |
| | 2.9.0.0 | | | Other in Subjects allied to Medicine |
| 3.0.0.0 | | | | Biological Sciences |
| | 3.1.0.0 | | | Biology |
| | 3.2.0.0 | | | Botany |
| | 3.3.0.0 | | | Zoology |
| | 3.4.0.0 | | | Genetics |
| | 3.5.0.0 | | | Microbiology |

| ID | | | | Subject of Degree (SBJ) |
|---------|---------|--|--|---|
| | 3.6.0.0 | | | Sports Science |
| | 3.7.0.0 | | | Molecular Biology, Biophysics and Biochemistry |
| | 3.8.0.0 | | | Psychology |
| | 3.9.0.0 | | | Other in Biological Sciences |
| 4.0.0.0 | | | | Veterinary Science, Agriculture and related subjects |
| | 4.1.0.0 | | | Pre-clinical Veterinary Medicine |
| | 4.2.0.0 | | | Clinical Veterinary Medicine and Dentistry |
| | 4.3.0.0 | | | Animal Science |
| | 4.4.0.0 | | | Agriculture |
| | 4.5.0.0 | | | Forestry |
| | 4.6.0.0 | | | Food and Beverage Studies |
| | 4.7.0.0 | | | Agricultural Sciences |
| | 4.9.0.0 | | | Other Veterinary Sciences, Agricultural and related subjects |
| 5.0.0.0 | | | | Physical Sciences |
| | 5.1.0.0 | | | Chemistry |
| | 5.2.0.0 | | | Materials Science |
| | 5.3.0.0 | | | Physics |
| | 5.4.0.0 | | | Forensic and Archaeological Science |
| | 5.5.0.0 | | | Astronomy |
| | 5.6.0.0 | | | Geology |
| | 5.7.0.0 | | | Ocean Sciences |
| | 5.8.0.0 | | | Physical and Territorial Geography and Environmental Sciences |
| | 5.9.0.0 | | | Other in Physical Sciences |
| 6.0.0.0 | | | | Mathematical and Computer Sciences |
| | 6.1.0.0 | | | Mathematics |
| | 6.2.0.0 | | | Operational Research |
| | 6.3.0.0 | | | Statistics |
| | 6.4.0.0 | | | Computer Science |
| | 6.5.0.0 | | | Information Systems |
| | 6.6.0.0 | | | Software Engineering |
| | 6.7.0.0 | | | Artificial Intelligence |
| | 6.9.0.0 | | | Other in Mathematics and Computing Sciences |
| 7.0.0.0 | | | | Engineering |
| | 7.1.0.0 | | | General Engineering |
| | 7.2.0.0 | | | Civil Engineering |
| | 7.3.0.0 | | | Mechanical Engineering |
| | 7.4.0.0 | | | Aerospace Engineering |
| | 7.5.0.0 | | | Naval Architecture |
| | 7.6.0.0 | | | Electronic and Electrical Engineering |
| | 7.7.0.0 | | | Production and Manufacturing Engineering |

| ID | | | | Subject of Degree (SBJ) |
|----------|----------|--|--|---|
| | 7.8.0.0 | | | Chemical, Process and Energy Engineering |
| | 7.9.0.0 | | | Other in Engineering |
| 8.0.0.0 | | | | Technologies |
| | 8.1.0.0 | | | Minerals Technology |
| | 8.2.0.0 | | | Metallurgy |
| | 8.3.0.0 | | | Ceramics and Glasses |
| | 8.4.0.0 | | | Polymers and Textiles |
| | 8.5.0.0 | | | Materials Technology not otherwise specified |
| | 8.6.0.0 | | | Maritime Technology |
| | 8.7.0.0 | | | Industrial Biotechnology |
| | 8.9.0.0 | | | Others in Technology |
| 9.0.0.0 | | | | Architecture, Building and Planning |
| | 9.1.0.0 | | | Architecture |
| | 9.2.0.0 | | | Building |
| | 9.3.0.0 | | | Landscape Design |
| | 9.4.0.0 | | | Planning (Urban, Rural and Regional) |
| | 9.9.0.0 | | | Others in Architecture, Building and Planning |
| 10.0.0.0 | | | | Social Studies |
| | 10.1.0.0 | | | Economics |
| | 10.2.0.0 | | | Politics |
| | 10.3.0.0 | | | Sociology |
| | 10.4.0.0 | | | Social Policy |
| | 10.5.0.0 | | | Social Work |
| | 10.6.0.0 | | | Anthropology |
| | 10.7.0.0 | | | Human and Social Geography |
| | 10.9.0.0 | | | Other in Social Studies |
| 11.0.0.0 | | | | Law |
| | 11.1.0.0 | | | Law by area |
| | 11.2.0.0 | | | Law by Topic |
| | 11.9.0.0 | | | Other in Law |
| 12.0.0.0 | | | | Business and Administrative Studies |
| | 12.1.0.0 | | | Business Studies |
| | 12.2.0.0 | | | Management Studies |
| | 12.3.0.0 | | | Finance |
| | 12.4.0.0 | | | Accounting |
| | 12.5.0.0 | | | Marketing |
| | 12.6.0.0 | | | Human Resource Management |
| | 12.7.0.0 | | | Office Skills |
| | 12.8.0.0 | | | Tourism, Transport and Travel |
| | 12.9.0.0 | | | Other in Business and Administrative Studies |
| 13.0.0.0 | | | | Mass Communications and Documentation |
| | 13.1.0.0 | | | Information Services |
| | 13.2.0.0 | | | Publicity Studies |
| | 13.3.0.0 | | | Media Studies |
| | 13.4.0.0 | | | Publishing |

| ID | | | | Subject of Degree (SBJ) |
|----------|----------|--|--|---|
| | 13.5.0.0 | | | Journalism |
| | 13.9.0.0 | | | Other in Mass Communications and Documentation |
| 14.0.0.0 | | | | Linguistics, Classics and related subjects |
| | 14.1.0.0 | | | Linguistics |
| | 14.2.0.0 | | | Comparative Literary Studies |
| | 14.3.0.0 | | | English Studies |
| | 14.4.0.0 | | | Ancient Language Studies |
| | 14.5.0.0 | | | Celtic Studies |
| | 14.6.0.0 | | | Latin Studies |
| | 14.7.0.0 | | | Classical Greek Studies |
| | 14.8.0.0 | | | Classical Studies |
| | 14.9.0.0 | | | Other Linguistics, Classics and related subjects |
| 15.0.0.0 | | | | European Language, Literature and related subjects |
| | 15.1.0.0 | | | French Studies |
| | 15.2.0.0 | | | German Studies |
| | 15.3.0.0 | | | Italian Studies |
| | 15.4.0.0 | | | Spanish Studies |
| | 15.5.0.0 | | | Portuguese Studies |
| | 15.6.0.0 | | | Scandinavian Studies |
| | 15.7.0.0 | | | Russian and East European Studies |
| | 15.9.0.0 | | | Other European Language, Literature and related subject |
| 16.0.0.0 | | | | East, Asiatic, African, American and Australian Languages, Literature |
| | 16.1.0.0 | | | Chinese Studies |
| | 16.2.0.0 | | | Japanese Studies |
| | 16.3.0.0 | | | South Asian Studies |
| | 16.4.0.0 | | | Other Asian Studies |
| | 16.5.0.0 | | | African Studies |
| | 16.6.0.0 | | | Modern Middle Eastern Studies |
| | 16.7.0.0 | | | American Studies |
| | 16.8.0.0 | | | Australian Studies |
| | 16.9.0.0 | | | Other East, Asiatic, African, American and Australian Languages |
| 17.0.0.0 | | | | Historical and Philosophical Studies |
| | 17.1.0.0 | | | History by period |
| | 17.2.0.0 | | | History by area |
| | 17.3.0.0 | | | History by topic |
| | 17.4.0.0 | | | Archaeology |
| | 17.5.0.0 | | | Philosophy |
| | 17.6.0.0 | | | Theology and Religious Studies |
| | 17.9.0.0 | | | Other in Historical and Philosophical Studies |

| ID | | | | Subject of Degree (SBJ) |
|----------|----------|--|--|--|
| 18.0.0.0 | | | | Creative Arts and Design |
| | 18.1.0.0 | | | Fine Art |
| | 18.2.0.0 | | | Design Studies |
| | 18.3.0.0 | | | Music |
| | 18.4.0.0 | | | Drama |
| | 18.5.0.0 | | | Dance |
| | 18.6.0.0 | | | Cinematics and Photography |
| | 18.7.0.0 | | | Crafts |
| | 18.8.0.0 | | | Imaginative Writing |
| | 18.9.0.0 | | | Other in Creative Arts and Design |
| 19.0.0.0 | | | | Education |
| | 19.1.0.0 | | | Training teach |
| | 19.2.0.0 | | | Research and Study Skills in Education |
| | 19.3.0.0 | | | Academic Studies in Education |
| | 19.9.0.0 | | | Others in Education |

Job

Job is used as a primary classification for some of the occupational episodes: work and voluntary. They have been extracted from the *Standard Occupational Classification (SOC)*.

| ID | | | | Standard Occupation Classification (SOC) |
|---------|---------|---------|---------|---|
| 0.0.0.0 | | | | Unknown |
| 1.0.0.0 | | | | Managers and Senior Officials |
| | 1.1.0.0 | | | Corporate Managers |
| | | 1.1.1.0 | | Corporate Managers and Senior Officials |
| | | | 1.1.1.1 | Senior Officials in National Government |
| | | | 1.1.1.2 | Directors and Chief Executives of Major Organisations |
| | | | 1.1.1.3 | Senior Officials in Local Government |
| | | | 1.1.1.4 | Senior Officials of Special Interest Organisations |
| | | 1.1.2.0 | | Production Managers |
| | | | 1.1.2.1 | Production, Works and Maintenance Managers |
| | | | 1.1.2.2 | Managers in Construction |
| | | | 1.1.2.3 | Managers in Mining and Energy |
| | | 1.1.3.0 | | Functional Managers |
| | | | 1.1.3.1 | Financial Managers and Chartered Secretaries |
| | | | 1.1.3.2 | Marketing and Sales Managers |
| | | | 1.1.3.3 | Purchasing Managers |
| | | | 1.1.3.4 | Advertising and Public Relations Managers |
| | | | 1.1.3.5 | Personnel, Training and Industrial Relations Managers |
| | | | 1.1.3.6 | Information and Communication Technology |

| ID | | | | Standard Occupation Classification (SOC) |
|----|---------|---------|--|---|
| | | | | Managers |
| | | 1.1.3.7 | | Research and Development Managers |
| | | 1.1.4.0 | | Quality and Customer Care Managers |
| | | 1.1.4.1 | | Quality Assurance Managers |
| | | 1.1.4.2 | | Customer Care Managers |
| | | 1.1.5.0 | | Financial Institution and Office Managers |
| | | 1.1.5.1 | | Financial Institution Managers |
| | | 1.1.5.2 | | Office Managers |
| | | 1.1.6.0 | | Managers in Distribution, Storage and Retailing |
| | | 1.1.6.1 | | Transport and Distribution Managers |
| | | 1.1.6.2 | | Storage and Warehouse Managers |
| | | 1.1.6.3 | | Retail and Wholesale Managers |
| | | 1.1.7.0 | | Protective Service Officers |
| | | 1.1.7.1 | | Officers in Armed Forces |
| | | 1.1.7.2 | | Police Officers (Inspectors and Above) |
| | | 1.1.7.3 | | Senior Officers in Fire, Ambulance, Prison and Related Services |
| | | 1.1.7.4 | | Security Managers |
| | | 1.1.8.0 | | Health and Social Services Managers |
| | | 1.1.8.1 | | Hospital and Health Service Managers |
| | | 1.1.8.2 | | Pharmacy Managers |
| | | 1.1.8.3 | | Healthcare Practice Managers |
| | | 1.1.8.4 | | Social Services Managers |
| | | 1.1.8.5 | | Residential and Day Care Managers |
| | 1.2.0.0 | | | Managers and Proprietors in Agriculture and Services |
| | | 1.2.1.0 | | Managers in Farming, Horticulture, Forestry and Fishing |
| | | 1.2.1.1 | | Farm Managers |
| | | 1.2.1.2 | | Natural Environment and Conservation Managers |
| | | 1.2.1.9 | | Managers in Animal Husbandry, Forestry and Fishing N.E.C. |
| | | 1.2.2.0 | | Managers and Proprietors in Hospitality and Leisure Services |
| | | 1.2.2.1 | | Hotel and Accommodation Managers |
| | | 1.2.2.2 | | Conference and Exhibition Managers |
| | | 1.2.2.3 | | Restaurant and Catering Managers |
| | | 1.2.2.4 | | Publicans and Managers of Licensed Premises |
| | | 1.2.2.5 | | Leisure and Sports Managers |
| | | 1.2.2.6 | | Travel Agency Managers |
| | | 1.2.3.0 | | Managers and Proprietors in Other Service Industries |
| | | 1.2.3.1 | | Property, Housing and Land Managers |
| | | 1.2.3.2 | | Garage Managers and Proprietors |

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|----|---------|---------|---------|--|
| | | | 1.2.3.3 | Hairdressing and Beauty Salon Managers and Proprietors |
| | | | 1.2.3.4 | Shopkeepers and Wholesale/Retail Dealers |
| | | | 1.2.3.5 | Recycling and Refuse Disposal Managers |
| | | | 1.2.3.9 | Managers and Proprietors in Other Services N.E.C. |
| | 2.0.0.0 | | | Professional Occupations |
| | | 2.1.0.0 | | Science and Technology Professionals |
| | | | 2.1.1.0 | Science Professionals |
| | | | 2.1.1.1 | Chemists |
| | | | 2.1.1.2 | Biological Scientists and Biochemists |
| | | | 2.1.1.3 | Physicists, Geologists and Meteorologists |
| | | | 2.1.2.0 | Engineering Professionals |
| | | | 2.1.2.1 | Civil Engineers |
| | | | 2.1.2.2 | Mechanical Engineers |
| | | | 2.1.2.3 | Electrical Engineers |
| | | | 2.1.2.4 | Electronics Engineers |
| | | | 2.1.2.5 | Chemical Engineers |
| | | | 2.1.2.6 | Design and Development Engineers |
| | | | 2.1.2.7 | Production and Process Engineers |
| | | | 2.1.2.8 | Planning and Quality Control Engineers |
| | | | 2.1.2.9 | Engineering Professionals N.E.C. |
| | | | 2.1.3.0 | Information and Communication Technology Professionals |
| | | | 2.1.3.1 | IT Strategy and Planning Professionals |
| | | | 2.1.3.2 | Software Professionals |
| | | 2.2.0.0 | | Health Professionals |
| | | | 2.2.1.0 | Health Professionals |
| | | | 2.2.1.1 | Medical Practitioners |
| | | | 2.2.1.2 | Psychologists |
| | | | 2.2.1.3 | Pharmacists/Pharmacologists |
| | | | 2.2.1.4 | Ophthalmic Opticians |
| | | | 2.2.1.5 | Dental Practitioners |
| | | | 2.2.1.6 | Veterinarians |
| | | 2.3.0.0 | | Teaching and Research Professionals |
| | | | 2.3.1.0 | Teaching Professionals |
| | | | 2.3.1.1 | Higher Education Teaching Professionals |
| | | | 2.3.1.2 | Further Education Teaching Professionals |
| | | | 2.3.1.3 | Education Officers, School Inspectors |
| | | | 2.3.1.4 | Secondary Education Teaching Professionals |
| | | | 2.3.1.5 | Primary and Nursery Education Teaching Professionals |
| | | | 2.3.1.6 | Special Needs Education Teaching Professionals |
| | | | 2.3.1.7 | Registrars and Senior Administrators of |

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|---------|---------|---------|--|---|
| | | | | Educational Establishments |
| | | 2.3.1.9 | | Teaching Professionals N.E.C. |
| | | 2.3.2.0 | | Research Professionals |
| | | 2.3.2.1 | | Scientific Researchers |
| | | 2.3.2.2 | | Social Science Researchers |
| | | 2.3.2.9 | | Researchers N.E.C. |
| | 2.4.0.0 | | | Business and Public Service Professionals |
| | | 2.4.1.0 | | Legal Professionals |
| | | 2.4.1.1 | | Solicitors and Lawyers, Judges and Coroners |
| | | 2.4.1.9 | | Legal Professionals N.E.C. |
| | | 2.4.2.0 | | Business and Statistical Professionals |
| | | 2.4.2.1 | | Chartered and Certified Accountants |
| | | 2.4.2.2 | | Management Accountants |
| | | 2.4.2.3 | | Management Consultants, Actuaries, Economists and Statisticians |
| | | 2.4.3.0 | | Architects, Town Planners, Surveyors |
| | | 2.4.3.1 | | Architects |
| | | 2.4.3.2 | | Town Planners |
| | | 2.4.3.3 | | Quantity Surveyors |
| | | 2.4.3.4 | | Chartered Surveyors (Not Quantity Surveyors) |
| | | 2.4.4.0 | | Public Service Professionals |
| | | 2.4.4.1 | | Public Service Administrative Professionals |
| | | 2.4.4.2 | | Social Workers |
| | | 2.4.4.3 | | Probation Officers |
| | | 2.4.4.4 | | Clergy |
| | | 2.4.5.0 | | Librarians and Related Professionals |
| | | 2.4.5.1 | | Librarians |
| | | 2.4.5.2 | | Archivists and Curators |
| 3.0.0.0 | | | | Associate Professional and Technical Occupations |
| | 3.1.0.0 | | | Science and Technology Associate Professionals |
| | | 3.1.1.0 | | Science and Engineering Technicians |
| | | 3.1.1.1 | | Laboratory Technicians |
| | | 3.1.1.2 | | Electrical/Electronics Technicians |
| | | 3.1.1.3 | | Engineering Technicians |
| | | 3.1.1.4 | | Building and Civil Engineering Technicians |
| | | 3.1.1.5 | | Quality Assurance Technicians |
| | | 3.1.1.9 | | Science and Engineering Technicians N.E.C. |
| | | 3.1.2.0 | | Draughtspersons and Building Inspectors |
| | | 3.1.2.1 | | Architectural Technologists and Town Planning Technicians |
| | | 3.1.2.2 | | Draughtspersons |
| | | 3.1.2.3 | | Building Inspectors |
| | | 3.1.3.0 | | IT Service Delivery Occupations |

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|----|--|---------|---------|--|
| | | | 3.1.3.1 | IT Operations Technicians |
| | | | 3.1.3.2 | IT User Support Technicians |
| | | 3.2.0.0 | | Health and Social Welfare Associate Professionals |
| | | | 3.2.1.0 | Health Associate Professionals |
| | | | 3.2.1.1 | Nurses |
| | | | 3.2.1.2 | Midwives |
| | | | 3.2.1.3 | Paramedics |
| | | | 3.2.1.4 | Medical Radiographers |
| | | | 3.2.1.5 | Chiropodists |
| | | | 3.2.1.6 | Dispensing Opticians |
| | | | 3.2.1.7 | Pharmaceutical Dispensers |
| | | | 3.2.1.8 | Medical and Dental Technicians |
| | | | 3.2.2.0 | Therapists |
| | | | 3.2.2.1 | Physiotherapists |
| | | | 3.2.2.2 | Occupational Therapists |
| | | | 3.2.2.3 | Speech and Language Therapists |
| | | | 3.2.2.9 | Therapists N.E.C. |
| | | | 3.2.3.0 | Social Welfare Associate Professionals |
| | | | 3.2.3.1 | Youth and Community Workers |
| | | | 3.2.3.2 | Housing and Welfare Officers |
| | | 3.3.0.0 | | Protective Service Occupations |
| | | | 3.3.1.0 | Protective Service Occupations |
| | | | 3.3.1.1 | Ncos and Other Ranks |
| | | | 3.3.1.2 | Police Officers (Sergeant and Below) |
| | | | 3.3.1.3 | Fire Service Officers (Leading Fire Officer and Below) |
| | | | 3.3.1.4 | Prison Service Officers (Below Principal Officer) |
| | | | 3.3.1.9 | Protective Service Associate Professionals N.E.C. |
| | | 3.4.0.0 | | Culture, Media and Sports Occupations |
| | | | 3.4.1.0 | Artistic and Literary Occupations |
| | | | 3.4.1.1 | Artists |
| | | | 3.4.1.2 | Authors, Writers |
| | | | 3.4.1.3 | Actors, Entertainers |
| | | | 3.4.1.4 | Dancers and Choreographers |
| | | | 3.4.1.5 | Musicians |
| | | | 3.4.1.6 | Arts Officers, Producers and Directors |
| | | | 3.4.2.0 | Design Associate Professionals |
| | | | 3.4.2.1 | Graphic Designers |
| | | | 3.4.2.2 | Product, Clothing and Related Designers |
| | | | 3.4.3.0 | Media Associate Professionals |
| | | | 3.4.3.1 | Journalists, Newspaper and Periodical Editors |
| | | | 3.4.3.2 | Broadcasting Associate Professionals |
| | | | 3.4.3.3 | Public Relations Officers |

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|----|---------|---------|---------|--|
| | | | 3.4.3.4 | Photographers and Audio-Visual Equipment Operators |
| | | 3.4.4.0 | | Sports and Fitness Occupations |
| | | | 3.4.4.1 | Sports Players |
| | | | 3.4.4.2 | Sports Coaches, Instructors and Officials |
| | | | 3.4.4.3 | Fitness Instructors |
| | | | 3.4.4.9 | Sports and Fitness Occupations N.E.C. |
| | 3.5.0.0 | | | Business and Public Service Associate Professionals |
| | | 3.5.1.0 | | Transport Associate Professionals |
| | | | 3.5.1.1 | Air Traffic Controllers |
| | | | 3.5.1.2 | Aircraft Pilots and Flight Engineers |
| | | | 3.5.1.3 | Ship and Hovercraft Officers |
| | | | 3.5.1.4 | Train Drivers |
| | | 3.5.2.0 | | Legal Associate Professionals |
| | | | 3.5.2.0 | Legal Associate Professionals |
| | | 3.5.3.0 | | Business and Finance Associate Professionals |
| | | | 3.5.3.1 | Estimators, Valuers and Assessors |
| | | | 3.5.3.2 | Brokers |
| | | | 3.5.3.3 | Insurance Underwriters |
| | | | 3.5.3.4 | Finance and Investment Analysts/Advisers |
| | | | 3.5.3.5 | Taxation Experts |
| | | | 3.5.3.6 | Importers, Exporters |
| | | | 3.5.3.7 | Financial and Accounting Technicians |
| | | | 3.5.3.9 | Business and Related Associate Professionals N.E.C. |
| | | 3.5.4.0 | | Sales and Related Associate Professionals |
| | | | 3.5.4.1 | Buyers and Purchasing Officers |
| | | | 3.5.4.2 | Sales Representatives |
| | | | 3.5.4.3 | Marketing Associate Professionals |
| | | | 3.5.4.4 | Estate Agents, Auctioneers |
| | | 3.5.5.0 | | Conservation Associate Professionals |
| | | | 3.5.5.1 | Conservation and Environmental Protection Officers |
| | | | 3.5.5.2 | Countryside and Park Rangers |
| | | 3.5.6.0 | | Public Service and Other Associate Professionals |
| | | | 3.5.6.1 | Public Service Associate Professionals |
| | | | 3.5.6.2 | Personnel and Industrial Relations Officers |
| | | | 3.5.6.3 | Vocational and Industrial Trainers and Instructors |
| | | | 3.5.6.4 | Careers Advisers and Vocational Guidance Specialists |
| | | | 3.5.6.5 | Inspectors of Factories, Utilities and Trading Standards |

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|---------|---------|---------|---------|--|
| | | | 3.5.6.6 | Statutory Examiners |
| | | | 3.5.6.7 | Occupational Hygienists and Safety Officers (Health and Safety) |
| | | | 3.5.6.8 | Environmental Health Officers |
| 4.0.0.0 | | | | Administrative and Secretarial Occupations |
| | 4.1.0.0 | | | Administrative Occupations |
| | | 4.1.1.0 | | Administrative Occupations: Government and Related Organisations |
| | | | 4.1.1.1 | Civil Service Executive Officers |
| | | | 4.1.1.2 | Civil Service Administrative Officers and Assistants |
| | | | 4.1.1.3 | Local Government Clerical Officers and Assistants |
| | | | 4.1.1.4 | Officers of Non-Governmental Organisations |
| | | 4.1.2.0 | | Administrative Occupations: Finance |
| | | | 4.1.2.1 | Credit Controllers |
| | | | 4.1.2.2 | Accounts and Wages Clerks, Book-Keepers, Other Financial Clerks |
| | | | 4.1.2.3 | Counter Clerks |
| | | 4.1.3.0 | | Administrative Occupations: Records |
| | | | 4.1.3.1 | Filing and Other Records Assistants/Clerks |
| | | | 4.1.3.2 | Pensions and Insurance Clerks |
| | | | 4.1.3.3 | Stock Control Clerks |
| | | | 4.1.3.4 | Transport and Distribution Clerks |
| | | | 4.1.3.5 | Library Assistants/Clerks |
| | | | 4.1.3.6 | Database Assistants/Clerks |
| | | | 4.1.3.7 | Market Research Interviewers |
| | | 4.1.4.0 | | Administrative Occupations: Communications |
| | | | 4.1.4.1 | Telephonists |
| | | | 4.1.4.2 | Communication Operators |
| | | 4.1.5.0 | | Administrative Occupations: General |
| | | | 4.1.5.0 | General Office Assistants/Clerks |
| | 4.2.0.0 | | | Secretarial and Related Occupations |
| | | 4.2.1.0 | | Secretarial and Related Occupations |
| | | | 4.2.1.1 | Medical Secretaries |
| | | | 4.2.1.2 | Legal Secretaries |
| | | | 4.2.1.3 | School Secretaries |
| | | | 4.2.1.4 | Company Secretaries |
| | | | 4.2.1.5 | Personal Assistants and Other Secretaries |
| | | | 4.2.1.6 | Receptionists |
| | | | 4.2.1.7 | Typists |
| 5.0.0.0 | | | | Skilled Trades Occupations |
| | 5.1.0.0 | | | Skilled Agricultural Trades |
| | | 5.1.1.0 | | Agricultural Trades |
| | | | 5.1.1.1 | Farmers |

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|----|---------|---------|---------|---|
| | | | 5.1.1.2 | Horticultural Trades |
| | | | 5.1.1.3 | Gardeners and Groundsmen/Groundswomen |
| | | | 5.1.1.9 | Agricultural and Fishing Trades N.E.C. |
| | 5.2.0.0 | | | Skilled Metal and Electrical Trades |
| | | 5.2.1.0 | | Metal Forming, Welding and Related Trades |
| | | | 5.2.1.1 | Smiths and Forge Workers |
| | | | 5.2.1.2 | Moulders, Core Makers, Die Casters |
| | | | 5.2.1.3 | Sheet Metal Workers |
| | | | 5.2.1.4 | Metal Plate Workers, Shipwrights, Riveters |
| | | | 5.2.1.5 | Welding Trades |
| | | | 5.2.1.6 | Pipe Fitters |
| | | 5.2.2.0 | | Metal Machining, Fitting and Instrument Making Trades |
| | | | 5.2.2.1 | Metal Machining Setters and Setter-Operators |
| | | | 5.2.2.2 | Tool Makers, Tool Fitters and Markers-Out |
| | | | 5.2.2.3 | Metal Working Production and Maintenance Fitters |
| | | | 5.2.2.4 | Precision Instrument Makers and Repairers |
| | | 5.2.3.0 | | Vehicle Trades |
| | | | 5.2.3.1 | Motor Mechanics, Auto Engineers |
| | | | 5.2.3.2 | Vehicle Body Builders and Repairers |
| | | | 5.2.3.3 | Auto Electricians |
| | | | 5.2.3.4 | Vehicle Spray Painters |
| | | 5.2.4.0 | | Electrical Trades |
| | | | 5.2.4.1 | Electricians, Electrical Fitters |
| | | | 5.2.4.2 | Telecommunications Engineers |
| | | | 5.2.4.3 | Lines Repairers and Cable Jointers |
| | | | 5.2.4.4 | Tv, Video and Audio Engineers |
| | | | 5.2.4.5 | Computer Engineers, Installation and Maintenance |
| | | | 5.2.4.9 | Electrical/Electronics Engineers N.E.C. |
| | 5.3.0.0 | | | Skilled Construction and Building Trades |
| | | 5.3.1.0 | | Construction Trades |
| | | | 5.3.1.1 | Steel Erectors |
| | | | 5.3.1.2 | Bricklayers, Masons |
| | | | 5.3.1.3 | Roofers, Roof Tilers and Slaters |
| | | | 5.3.1.4 | Plumbers, Heating and Ventilating Engineers |
| | | | 5.3.1.5 | Carpenters and Joiners |
| | | | 5.3.1.6 | Glaziers, Window Fabricators and Fitters |
| | | | 5.3.1.9 | Construction Trades N.E.C. |
| | | 5.3.2.0 | | Building Trades |
| | | | 5.3.2.1 | Plasterers |
| | | | 5.3.2.2 | Floorers and Wall Tilers |
| | | | 5.3.2.3 | Painters and Decorators |
| | 5.4.0.0 | | | Textiles, Printing and Other Skilled Trades |

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|---------|---------|---------|---------|---|
| | | 5.4.1.0 | | Textiles and Garments Trades |
| | | | 5.4.1.1 | Weavers and Knitters |
| | | | 5.4.1.2 | Upholsterers |
| | | | 5.4.1.3 | Leather and Related Trades |
| | | | 5.4.1.4 | Tailors and Dressmakers |
| | | | 5.4.1.9 | Textiles, Garments and Related Trades N.E.C. |
| | | 5.4.2.0 | | Printing Trades |
| | | | 5.4.2.1 | Originators, Compositors and Print Preparers |
| | | | 5.4.2.2 | Printers |
| | | | 5.4.2.3 | Bookbinders and Print Finishers |
| | | | 5.4.2.4 | Screen Printers |
| | | 5.4.3.0 | | Food Preparation Trades |
| | | | 5.4.3.1 | Butchers, Meat Cutters |
| | | | 5.4.3.2 | Bakers, Flour Confectioners |
| | | | 5.4.3.3 | Fishmongers, Poultry Dressers |
| | | | 5.4.3.4 | Chefs, Cooks |
| | | 5.4.9.0 | | Skilled Trades N. E. C. |
| | | | 5.4.9.1 | Glass and Ceramics Makers, Decorators and Finishers |
| | | | 5.4.9.2 | Furniture Makers, Other Craft Woodworkers |
| | | | 5.4.9.3 | Pattern Makers (Moulds) |
| | | | 5.4.9.4 | Musical Instrument Makers and Tuners |
| | | | 5.4.9.5 | Goldsmiths, Silversmiths, Precious Stone Workers |
| | | | 5.4.9.6 | Floral Arrangers, Florists |
| | | | 5.4.9.9 | Hand Craft Occupations N.E.C. |
| 6.0.0.0 | | | | Personal Service Occupations |
| | 6.1.0.0 | | | Caring Personal Service Occupations |
| | | 6.1.1.0 | | Healthcare and Related Personal Services |
| | | | 6.1.1.1 | Nursing Auxiliaries and Assistants |
| | | | 6.1.1.2 | Ambulance Staff (Excluding Paramedics) |
| | | | 6.1.1.3 | Dental Nurses |
| | | | 6.1.1.4 | Houseparents and Residential Wardens |
| | | | 6.1.1.5 | Care Assistants and Home Carers |
| | | 6.1.2.0 | | Childcare and Related Personal Services |
| | | | 6.1.2.1 | Nursery Nurses |
| | | | 6.1.2.2 | Childminders and Related Occupations |
| | | | 6.1.2.3 | Playgroup Leaders/Assistants |
| | | | 6.1.2.4 | Educational Assistants |
| | | 6.1.3.0 | | Animal Care Services |
| | | | 6.1.3.1 | Veterinary Nurses and Assistants |
| | | | 6.1.3.9 | Animal Care Occupations N.E.C. |
| | 6.2.0.0 | | | Leisure and Other Personal Service Occupations |
| | | 6.2.1.0 | | Leisure and Travel Service Occupations |

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| | | 6.2.1.1 | Sports and Leisure Assistants |
| | | 6.2.1.2 | Travel Agents |
| | | 6.2.1.3 | Travel and Tour Guides |
| | | 6.2.1.4 | Air Travel Assistants |
| | | 6.2.1.5 | Rail Travel Assistants |
| | | 6.2.1.9 | Leisure and Travel Service Occupations N.E.C. |
| | 6.2.2.0 | | Hairdressers and Related Occupations |
| | | 6.2.2.1 | Hairdressers, Barbers |
| | | 6.2.2.2 | Beauticians and Related Occupations |
| | 6.2.3.0 | | Housekeeping Occupations |
| | | 6.2.3.1 | Housekeepers and Related Occupations |
| | | 6.2.3.2 | Caretakers |
| | 6.2.9.0 | | Personal Services Occupations N. E. C. |
| | | 6.2.9.1 | Undertakers and Mortuary Assistants |
| | | 6.2.9.2 | Pest Control Officers |
| 7.0.0.0 | | | Sales and Customer Service Occupations |
| | 7.1.0.0 | | Sales Occupations |
| | | 7.1.1.0 | Sales Assistants and Retail Cashiers |
| | | 7.1.1.1 | Sales and Retail Assistants |
| | | 7.1.1.2 | Retail Cashiers and Check-Out Operators |
| | | 7.1.1.3 | Telephone Salespersons |
| | 7.1.2.0 | | Sales Related Occupations |
| | | 7.1.2.1 | Collector Salespersons and Credit Agents |
| | | 7.1.2.2 | Debt, Rent and Other Cash Collectors |
| | | 7.1.2.3 | Roundsmen/Women and Van Salespersons |
| | | 7.1.2.4 | Market and Street Traders and Assistants |
| | | 7.1.2.5 | Merchandisers and Window Dressers |
| | | 7.1.2.9 | Sales Related Occupations N.E.C. |
| | 7.2.0.0 | | Customer Service Occupations |
| | | 7.2.1.0 | Customer Service Occupations |
| | | 7.2.1.1 | Call Centre Agents/Operators |
| | | 7.2.1.2 | Customer Care Occupations |
| 8.0.0.0 | | | Process, Plant and Machine Operatives |
| | 8.1.0.0 | | Process, Plant and Machine Operatives |
| | | 8.1.1.0 | Process Operatives |
| | | 8.1.1.1 | Food, Drink and Tobacco Process Operatives |
| | | 8.1.1.2 | Glass and Ceramics Process Operatives |
| | | 8.1.1.3 | Textile Process Operatives |
| | | 8.1.1.4 | Chemical and Related Process Operatives |
| | | 8.1.1.5 | Rubber Process Operatives |
| | | 8.1.1.6 | Plastics Process Operatives |
| | | 8.1.1.7 | Metal Making and Treating Process Operatives |
| | | 8.1.1.8 | Electroplaters |
| | | 8.1.1.9 | Process Operatives N.E.C. |
| | 8.1.2.0 | | Plant and Machine Operatives |

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|---------|---------|---------|---|
| | | 8.1.2.1 | Paper and Wood Machine Operatives |
| | | 8.1.2.2 | Coal Mine Operatives |
| | | 8.1.2.3 | Quarry Workers and Related Operatives |
| | | 8.1.2.4 | Energy Plant Operatives |
| | | 8.1.2.5 | Metal Working Machine Operatives |
| | | 8.1.2.6 | Water and Sewerage Plant Operatives |
| | | 8.1.2.9 | Plant and Machine Operatives N.E.C. |
| | 8.1.3.0 | | Assemblers and Routine Operatives |
| | | 8.1.3.1 | Assemblers (Electrical Products) |
| | | 8.1.3.2 | Assemblers (Vehicles and Metal Goods) |
| | | 8.1.3.3 | Routine Inspectors and Testers |
| | | 8.1.3.4 | Weighers, Graders, Sorters |
| | | 8.1.3.5 | Tyre, Exhaust and Windscreen Fitters |
| | | 8.1.3.6 | Clothing Cutters |
| | | 8.1.3.7 | Sewing Machinists |
| | | 8.1.3.8 | Routine Laboratory Testers |
| | | 8.1.3.9 | Assemblers and Routine Operatives N.E.C. |
| | 8.1.4.0 | | Construction Operatives |
| | | 8.1.4.1 | Scaffolders, Stagers, Riggers |
| | | 8.1.4.2 | Road Construction Operatives |
| | | 8.1.4.3 | Rail Construction and Maintenance Operatives |
| | | 8.1.4.9 | Construction Operatives N.E.C. |
| | 8.2.0.0 | | Transport and Mobile Machine Drivers and Operatives |
| | | 8.2.1.0 | Transport Drivers and Operatives |
| | | 8.2.1.1 | Heavy Goods Vehicle Drivers |
| | | 8.2.1.2 | Van Drivers |
| | | 8.2.1.3 | Bus and Coach Drivers |
| | | 8.2.1.4 | Taxi, Cab Drivers and Chauffeurs |
| | | 8.2.1.5 | Driving Instructors |
| | | 8.2.1.6 | Rail Transport Operatives |
| | | 8.2.1.7 | Seafarers (Merchant Navy); Barge, Lighter and Boat Operatives |
| | | 8.2.1.8 | Air Transport Operatives |
| | | 8.2.1.9 | Transport Operatives N.E.C. |
| | 8.2.2.0 | | Mobile Machine Drivers and Operatives |
| | | 8.2.2.1 | Crane Drivers |
| | | 8.2.2.2 | Fork-Lift Truck Drivers |
| | | 8.2.2.3 | Agricultural Machinery Drivers |
| | | 8.2.2.9 | Mobile Machine Drivers and Operatives N.E.C. |
| 9.0.0.0 | | | Elementary Occupations |
| | 9.1.0.0 | | Elementary Trades, Plant and Storage Related Occupations |
| | | 9.1.1.0 | Elementary Agricultural Occupations |
| | | 9.1.1.1 | Farm Workers |

| ID | | | | Standard Occupation Classification (SOC) |
|----|---------|---------|---------|---|
| | | | 9.1.1.2 | Forestry Workers |
| | | | 9.1.1.9 | Fishing and Agriculture Related Occupations N.E.C. |
| | | 9.1.2.0 | | Elementary Construction Occupations |
| | | | 9.1.2.1 | Labourers in Building and Woodworking Trades |
| | | | 9.1.2.9 | Labourers in Other Construction Trades N.E.C. |
| | | 9.1.3.0 | | Elementary Process Plant Occupations |
| | | | 9.1.3.1 | Labourers in Foundries |
| | | | 9.1.3.2 | Industrial Cleaning Process Occupations |
| | | | 9.1.3.3 | Printing Machine Minders and Assistants |
| | | | 9.1.3.4 | Packers, Bottlers, Canners, Fillers |
| | | | 9.1.3.9 | Labourers in Process and Plant Operations N.E.C. |
| | | 9.1.4.0 | | Elementary Goods Storage Occupations |
| | | | 9.1.4.1 | Stevedores, Dockers and Slingers |
| | | | 9.1.4.9 | Other Goods Handling and Storage Occupations N.E.C. |
| | 9.2.0.0 | | | Elementary Administration and Service Occupations |
| | | 9.2.1.0 | | Elementary Administration Occupations |
| | | | 9.2.1.1 | Postal Workers, Mail Sorters, Messengers, Couriers |
| | | | 9.2.1.9 | Elementary Office Occupations N.E.C. |
| | | 9.2.2.0 | | Elementary Personal Services Occupations |
| | | | 9.2.2.1 | Hospital Porters |
| | | | 9.2.2.2 | Hotel Porters |
| | | | 9.2.2.3 | Kitchen and Catering Assistants |
| | | | 9.2.2.4 | Waiters, Waitresses |
| | | | 9.2.2.5 | Bar Staff |
| | | | 9.2.2.6 | Leisure and Theme Park Attendants |
| | | | 9.2.2.9 | Elementary Personal Services Occupations N.E.C. |
| | | 9.2.3.0 | | Elementary Cleaning Occupations |
| | | | 9.2.3.1 | Window Cleaners |
| | | | 9.2.3.2 | Road Sweepers |
| | | | 9.2.3.3 | Cleaners, Domestic |
| | | | 9.2.3.4 | Launderers, Dry Cleaners, Pressers |
| | | | 9.2.3.5 | Refuse and Salvage Occupations |
| | | | 9.2.3.9 | Elementary Cleaning Occupations N.E.C. |
| | | 9.2.4.0 | | Elementary Security Occupations |
| | | | 9.2.4.1 | Security Guards and Related Occupations |
| | | | 9.2.4.2 | Traffic Wardens |
| | | | 9.2.4.3 | School Crossing Patrol Attendants |
| | | | 9.2.4.4 | School Mid-Day Assistants |
| | | | 9.2.4.5 | Car Park Attendants |

| ID | | | | Standard Occupation Classification (SOC) |
|----|--|---------|---------|--|
| | | | 9.2.4.9 | Elementary Security Occupations N.E.C. |
| | | 9.2.5.0 | | Elementary Sales Occupations |
| | | | 9.2.5.1 | Shelf Fillers |
| | | | 9.2.5.9 | Elementary Sales Occupations N.E.C. |

Activity Sector

Activity sector is used as a secondary classification for some of the occupational episodes: work, voluntary and business. They have been extracted from the *Standard Industrial Classification (SIC)*.

| ID | | | | Standard Industrial Classification (SIC) |
|----|--|--|---------|--|
| | | | 0.0.0.0 | Unknow |
| | | | A.0.0.0 | Agriculture, Forestry and Fishing |
| | | | B.0.0.0 | Mining and quarrying |
| | | | C.0.0.0 | Manufacturing |
| | | | D.0.0.0 | Electricity, gas, steam and air conditioning supply |
| | | | E.0.0.0 | Water supply, sewerage, waste management and remediation activities |
| | | | F.0.0.0 | Construction |
| | | | G.0.0.0 | Wholesale and retail trade; repair of motor vehicles and motorcycles |
| | | | I.0.0.0 | Accommodation and food service activities |
| | | | H.0.0.0 | Transportation and storage |
| | | | J.0.0.0 | Information and communication |
| | | | K.0.0.0 | Financial and insurance activities |
| | | | L.0.0.0 | Real estate activities |
| | | | M.0.0.0 | Professional, scientific and technical activities |
| | | | N.0.0.0 | Administrative and support service activities |
| | | | O.0.0.0 | Public administration and defence; compulsory social security |
| | | | P.0.0.0 | Education |
| | | | Q.0.0.0 | Human health and social work activities |
| | | | R.0.0.0 | Arts, entertainment and recreation |
| | | | S.0.0.0 | Other service activities |
| | | | T.0.0.0 | Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use |
| | | | U.0.0.0 | Activities of extraterritorial organizations and bodies |