



eKNOWLEDGE PROJECT

**Developing and piloting a forum tool
to support the collaborative construction
of knowledge on the UOC's Virtual Campus**

July 2011



eKnowledge Project

Developing and piloting a forum tool to support the collaborative construction of knowledge on the UOC's Virtual Campus

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Area of Educational Technology
.....

eKnowledge Project

Developing and piloting a forum tool to support the collaborative construction of knowledge on the UOC's Virtual Campus

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Recommended quote: Garcia, I; Durall, E. (2011) *eKnowledge Project: Developing and piloting a forum tool to support the collaborative construction of knowledge on the UOC's Virtual Campus*. Barcelona: eLearn Center. UOC.

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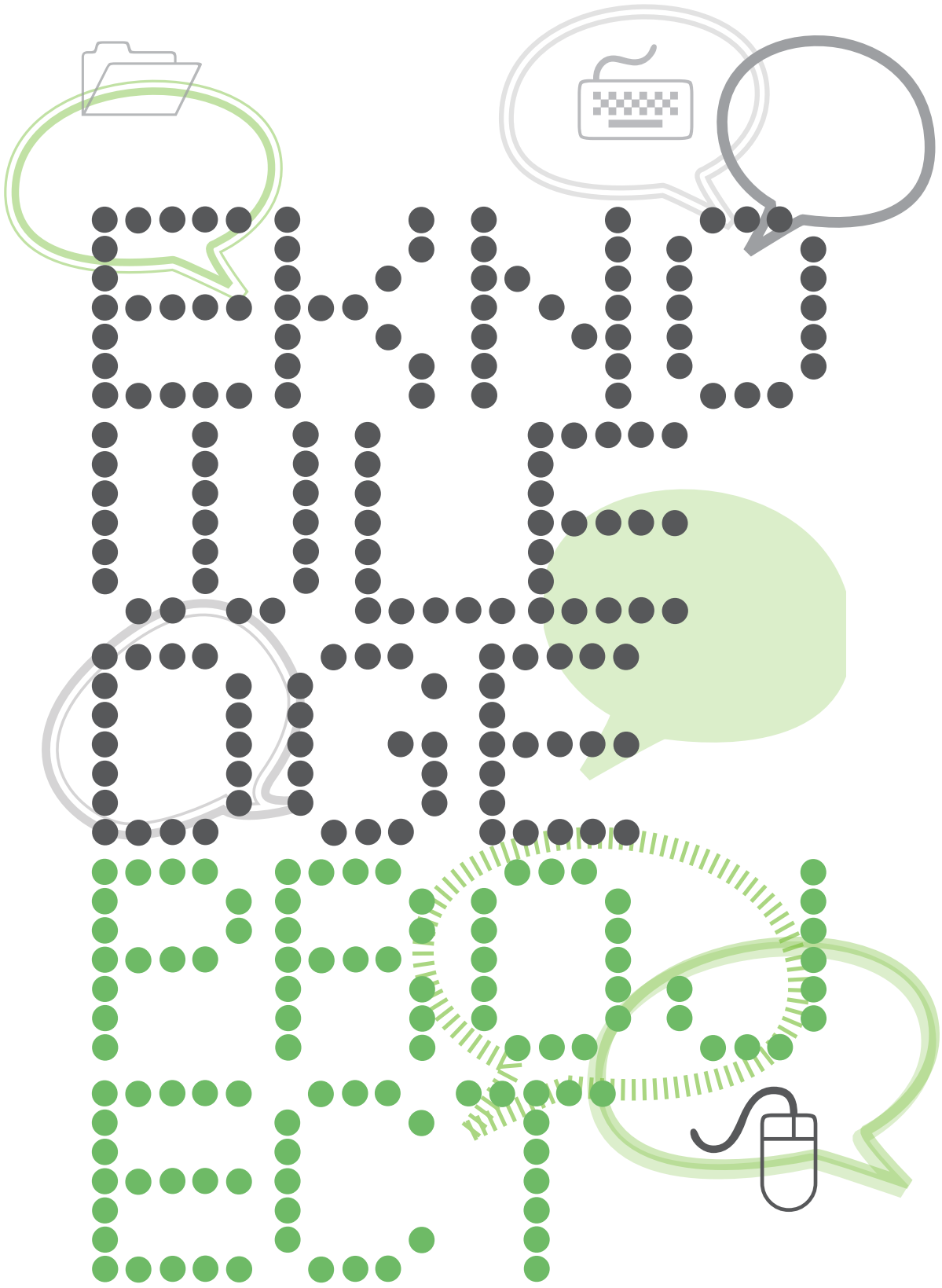
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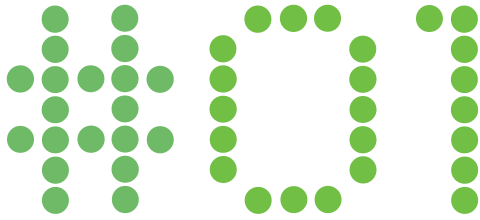
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INTRODUCTION: PROJECT PURPOSE AND BACKGROUND

eKnowledge is the name of an online forum tool that offers consultants and students the chance to create spaces for asynchronous communication and collaboration in pursuit of different goals and at different levels of structuring by teachers.

It is an eLearn Center innovation project called *eKnowledge: developing and piloting a forum tool to support the collaborative construction of knowledge on the UOC's Virtual Campus*. During the period covered in this report, this project was carried out in collaboration with the Area of Educational Technology with the participation of lecturers on the Information and Communication Sciences, Computing, Multimedia and Telecommunication, Economics and Business and Psychology and Education Sciences courses at the UOC.

The project is based on a flexible collaborative learning model. Right from the start, the key purpose of this project was to update the forum tool on the UOC's Virtual Campus. The idea was to design a tool that not only met the basic communicative needs of any forum tool, but also provided support for applying specific learning methodologies and processes, such as those based on collaboration, reflection and the joint production of knowledge. In addition, particular attention was paid to facilitating monitoring by teachers, given the approaches set out in the Bologna Process with regard to formative, ongoing assessment, which in fact already has a long tradition in the context of the UOC.

In this vein, an effort was made to incorporate functionalities linked to managing information and monitoring

users' activity. The tool also features some functionalities designed to support collaborative learning processes and processes involving reflection, argumentation and the joint construction of knowledge. The introduction of these kinds of functionalities makes eKnowledge a learning tool that goes above and beyond the general uses of online forums. In fact, besides the technology itself, the project also aims to promote the presence of the social and collaborative component within formative processes at the UOC, as set out in its educational model.

More specifically, the eKnowledge tool aims to cover the following objectives:

- Improve knowledge communication and exchange.
- Facilitate management of information and interactions.
- Facilitate the monitoring and assessment process
- Encourage the use of collaborative learning methodologies.
- Facilitate the development of processes for joint reflection and social construction of knowledge.

This report centres on carrying out the project over the 2009-2010 and 2010-2011 academic years, when the first pilot tests of the tool were planned, carried out and assessed. It is worth bearing in mind, however, that the eKnowledge project got under way during the 2008-2009 academic year, when work was carried out to design the tool in collaboration with the company Naranjus.

The following two sets of features were designed during this initial design phase:

1. The first set was related to the tool's usability, centred on making it easier for users to find their way around and improving information management.
2. The second set was centred more on the process support functionalities and the work and learning methodology, geared specifically towards mediating collaborative learning and the joint construction of knowledge.

These two sets were worked on in an integrated fashion, since they complement each other and provide mutual feedback and, in fact, many of the functionalities have to be tackled at both levels.

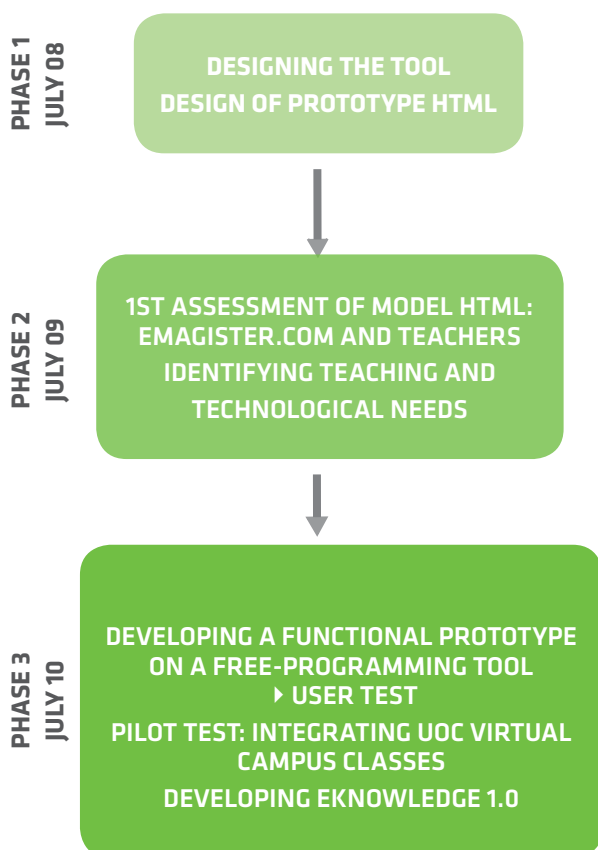


Figure 1

The process for designing eKnowledge was based on analysing different communication and collaboration tools, which can be grouped into the following reference models: products developed with the field of CSCL, based mainly on the theory of the social construction of knowledge; social web or web 2.0 tools; and forums on general electronic learning platforms, such as Moodle. Finally, the strengths and weaknesses of the current forum tool on the UOC's Virtual Campus were analysed.

The result of this first design phase was a functional model of the tool. This model was used as the starting point for developing a first prototype for the tool to be integrated on the UOC Campus. Figure 2 shows some of the main characteristics and functionalities of the first model for the tool, following the classification of the two sets or dimensions discussed above.

In order to develop this first prototype for eKnowledge, a free, open-code programming tool was chosen. Specifically, two options were analysed: the Moodle forum tool and the phpBB forum platform tool. Finally, the second option was chosen.

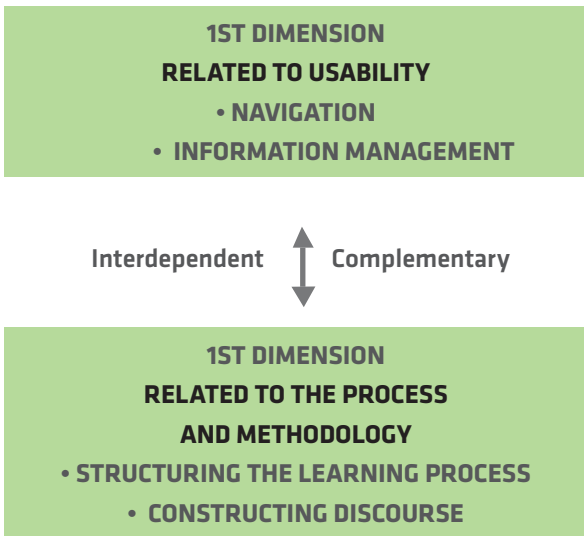
eKnowledge is therefore an adaptation of the phpBB forum platform based on php programming language.

The options for personalisation, the versatility of functionalities, as well as the wider international community for supporting and developing this platform's features were some of the aspects behind this choice. This adaptation process meant abandoning, at least initially, plans to incorporate some characteristics of the initial model, either because it required excessively complex programming or because there wasn't enough time to develop them. On the other hand, however, other functionalities were added that were not initially envisaged, since they were incorporated by the phpBB platform.

Below we describe the work process within the project over the last two years and analyse the results of the first pilot tests.



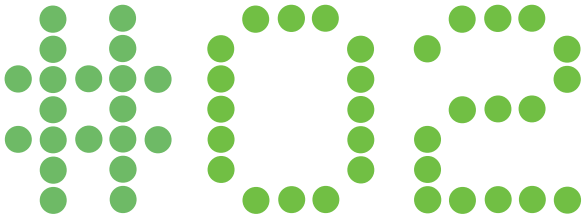
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- Personalisable organisation/viewing**
- Advanced search
- RSS feeds
- Selectively export contents
- Structured by subject
- Crosscutting discussion spaces

- Enriched content contributions**
- Tagging contributions
- References to previous contributions
- Assessment of contributions, participants
- (Re)editing contributions

Figure 2: Design of the first model of eKnowledge



WORK METHODOLOGY

This section briefly describes the work methodology followed by the team of people involved with the eKnowledge project over the 2009-2010 and 2010-2011 academic years. This period includes the actions set out below:

- a) Configuring the work group;
- b) Completing the design of the first eKnowledge prototype;
- c) Planning the pilot tests;
- d) Carrying out the first pilot tests;
- e) Assessing the pilot tests.

During the 2009-2010 academic year, a series of different actions were carried out by both the eLC and TE to promote the project and to set up a group made up of eight lecturers on different courses at the UOC who were interested in the use of forum tools to aid learning. This group's role was firstly to help validate the definitive design for the tool. And secondly they were to prepare a pilot test for subjects with suitable conditions. A series of meetings were therefore held over the course of this academic year to present the available model of the tool and discuss its design, from both a pedagogical and a technological point of view.

A work group was set up within the Campus as a virtual meeting space for the project. Team members communicated through this space. A trial access point for the

eKnowledge tool was also set up. Lecturers therefore had the chance to try out the tool firsthand and assess its strengths and weaknesses.

It should be pointed out that the process for developing eKnowledge was rooted in a user-based design concept and a participatory system was used. The lecturers' involvement over the course of the project made it possible to rethink the design of the tool by paying attention to the specific needs of the group of people it is aimed at. This collaboration led to regular face-to-face meetings, and all those involved took it in turn to try out the different versions of eKnowledge for a period of time. This work was carried out over the two semesters before the start of the pilot tests. This procedure made it possible to carry out an iterative design process, whereby each of the test phases for the tool became the starting point for a new version of eKnowledge.

In parallel, the Educational Technology team carried out a series of user tests and shared the results obtained with the project work group. The result of this entire process made it possible to identify the minimum tool requirements to carry out the pilot tests, bearing in mind and gathering together those aspects with room for improvement, which were left for a later development phase.

During the last months of the 2009-2010 academic year, it was decided which subjects and lecturers would take part in the pilot tests, and the conditions and characteristics of each subject were identified in terms of the purpose and kind of activity the forum tool would be



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used for. The support needs to be covered while the tests were being carried out (gathering and channelling problems, tool user manual, sharing experiences) were also identified. From this point onwards the work group was also joined by the consultants who would be working on the tests and they were also invited to take part in the face-to-face meetings.

Before the pilot tests with eKnowledge got under way, a training session was held for the consultants who would be working on the project. This meeting served to present the tool's functionalities, clear up basic questions related to its use and take a deeper look at methodological issues linked to the design of the activities to be carried out with eKnowledge.

With this goal in mind, three prototype situations were designed to centre on, respectively: a) managing information and interaction within the environment; b) designing a reflective-argumentative learning activity; and c) monitoring of activities and students' contributions by teachers. These usage situations served as a starting point for dealing with queries and advising the consultants on possible future uses of the functionalities of eKnowledge, based on the needs of each subject.

All in all, the consultants and lecturers taking part in the pilot tests had complete freedom to consider the use of the tool to support learning activities within their respective subjects.

For the pilot tests, consultants (http://cv.uoc.edu/app/phpBB3/docs/manual_eknowledge_consultors_ca-es.pdf) i estudiants (http://cv.uoc.edu/app/phpBB3/docs/manual_eknowledge_estudiants_ca-es.pdf) were provided with two models of the user manual in Spanish and Catalan, along with a list of FAQ.

In addition, the eLC prepared a letter addressed to all students taking part in the tests to be sent at the start of the pilot tests. This letter introduced the project, set out the tool's main functionalities and thanked the students for their collaboration over the course of the

pilot period (see Appendix 1). They were also told that they would be sent an assessment questionnaire at the end of the semester.

In order to ensure fluid, direct communication between eLearn Center staff, Educational Technology personnel and the lecturers and consultants taking part in the pilot tests, a space for discussion was opened using the same eKnowledge forum tool to express any queries and share uses and methodological questions when it came to carrying out the programmed activities.

Educational Technology also set up a blog to be accessed by both students and consultants taking part in order to manage and reply to any technical problems. (<http://pretoria.uoc.es/wpmu/forums/>). The format of the blog made it possible to bring together all the technical problems that arose during the tests and set about solving them, making it a useful tool for users during that and future pilot tests.

Finally, during the first semester of the 2010-2011 academic year, students in eleven classes on different courses at the UOC (Information and Communication Sciences, Computing, Multimedia and Telecommunication, Economics and Business and Psychology and Education Sciences) took part in the eKnowledge pilot tests. **Overall, over two hundred students are calculated to have taken part in the tests, along with eleven consultants and eight lecturers.**

Table 1 below gives an overview of the conditions of use of the eKnowledge tool in the different subjects taking part in the pilot tests.

Superficial analysis of the conditions for applying it to each of the subjects taking part in the pilot test lets us make a first assessment of the kinds of functionalities that might be used to a greater or lesser extent in each case. For example, if the function of the forum within the subject is to create a space for informal interaction, functionalities designed to help structure discourse and reflective-argumentative processes are unlikely

to come into play. Subsequent analysis of the interactions recorded in the forum in the different experiences piloted, together with analysis of the consultants' and

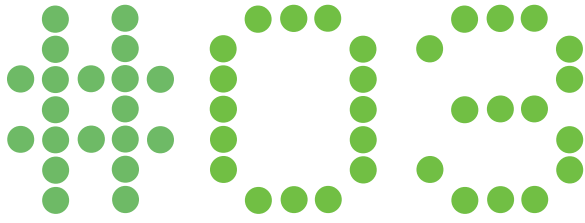
students' replies to the questionnaire, back up these observations.

SUBJECTS	CLAS-SROOMS	STUDENTS	CONSUL-TANTS	FORUM FUNCTION WITHIN THE LEARNING ACTIVITY	ASSESSMENT APPROACH
Legal framework for communication. Communication Degree. EEES IB	1	20	1	a) Forum: a space for informal communication between students and with the consultant to deal with any queries. b) Debate: a space for reflection on the practical application of the theoretical contents in the subject.	The number and quality of contributions are only taken into account to adjust the final grade for the subject.
Management of clinical information and a system of health-care knowledge. Master's in Telemedicine EEES IB/CAT	2	30	1	Informal debates in the subject by topic.	Degree of participation in the different debates.
Electronic commerce. Computer Engineering Degree. EEES CAT	1	16	2	Space for raising queries concerning modules/practicals. Organisation of the space by topics related to the role of each of the consultants	Not assessable.
Mathematics II. Technical Telecommunications Engineering LRU IB	1	25	1	Raising and solving queries	Serves to adjust the grade for the subject. No systematic assessment of participation in the forum is carried out, but an orientative valuation is.



ASSIGNATURES	AULES	ESTUDIANTS	CONSULTORS	FUNCIO FÒRUM DINS L'ACTIVITAT D'APRENENTATGE	PLANTEJAMENT DE L'AVAUACIO
Tourist demand. Tourism Degree. EEES CAT	1	34	1	Group participation promoted and information searches encouraged so students relate concepts and present them in a critical fashion.	The quality of replies, interaction with other colleagues and the contribution of examples related to the topics set are assessed.
Marketing essentials. Business Administration and Management Degree EEES CAT	1	77	1	Group participation promoted and information searches encouraged so students relate concepts and present them in a critical fashion.	The quality of replies, interaction with other colleagues and the contribution of examples related to the topics set are assessed.
Learning strategies. Psychopedagogy Bachelor's Degree LRU CAT	1	43	1	Sharing, in a structured fashion, relevant information that might be useful for consultation and guidance for preparing an advice list for lecturers on teaching and learning strategies for specific content.	Each student should prepare eight to ten messages. The quality of contributions is assessed in accordance with the guidelines provided. Central role within the second PAC2 activity (there are three in total and it accounts for 1/3 of the overall grade).
Managing organisations and computing projects. Engineering Computing Management. LRU CAT/IB	3	157	3	Covers different topics in a complementary fashion in parallel to carrying out the PEC.	Degree of contribution to the different debates, as well as the quality of contributions. Complementary evaluation of the PEC.

Table 1



ASSESSMENT AND MONITORING PROCEDURE DURING THE PILOT TESTS

The pilot tests made use of different systems for assessing how the tool works and the pilot experience itself.

Firstly, three work meetings were held with the team of lecturers and consultants involved in the project (one at the start, one half-way through the semester and one at the end of the tests) in order to bring together the problems and observations for each subject.

Secondly, in order to get a firsthand evaluation of how the tool works and identify any aspects with room for improvement, the eLC monitored use of the functionalities of the application in the different classes and subjects. This let us analyse the kinds of interactions between students and between students and teachers recorded by the tool, identify the functionalities that were used least and most, any problems with the use of any of these functionalities, and gather users' points of view from spontaneous comments on the tool, its design, difficulties in adapting to using it, etc.

Some subjects explicitly required students to make a final assessment of the tool at the end of the pilot tests and, logically, we also included this information in our assessment.

In addition, the monitoring carried out by different means during the pilot tests made it possible to gather together a series of problems and incidents related to the use of the eKnowledge tool. In this section we won't go into these questions in detail, since we will look at them in the section on analysing the results of the pilot tests. Here we will limit ourselves to listing the kinds of problems identified:

- Difficulties in monitoring forum activities.
- Difficulties with the search tool.
- Problems with editing messages.
- Loss of reference screen after publishing a message.
- Assigning categories by students.
- Viewing problems depending on the browser used.

Although several aspects were judged to have room for improvement, it should be noted that the tool was warmly welcomed. The technical problems occurred very occasionally or were very minor in nature, so in general they had no great effect on the activities being carried out through the forum.

In their spontaneous comments, students particularly appreciated the way subjects were organised, as well as the environment interface, which was seen as considerably clearer and more engaging than the usual forum tool on the Campus.



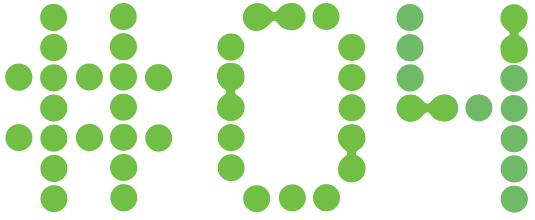
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Finally, in order to go about gathering data on the needs of the two major groups of users of the tool, students and consultants, in the most systematic fashion, two models of assessment questionnaire were prepared, one for each group. This questionnaire was sent out online at the end of the pilot tests, coinciding with the end of the semester, and all test participants were invited to fill it in. Appendix 2 contains the questions on the two models of questionnaire. Basically, the questionnaires aimed to gather assessments of:

- a) eKnowledge's ease of use;
- b) The teaching and learning application of eKnowledge's different functionalities;
- c) How the tool works as support for learning activities;

- d) The support received by participants to help them use eKnowledge throughout the pilot tests;
- e) Consultants' and students' general perception of the tool.

In total, **seven questionnaires were received from consultants and sixty-three from students**, including participants in CAT and IB classes, whose results are shown below. Bearing in mind the number of participants in the pilot tests was approximately **two hundred students and eleven consultants**, we are talking about a relatively low percentage of completed questionnaires, especially in the case of those sent to students. Nevertheless, there are enough of them to carry out an assessment of use of the tool.



RESULTS OF THE ASSESSMENT QUESTIONNAIRES

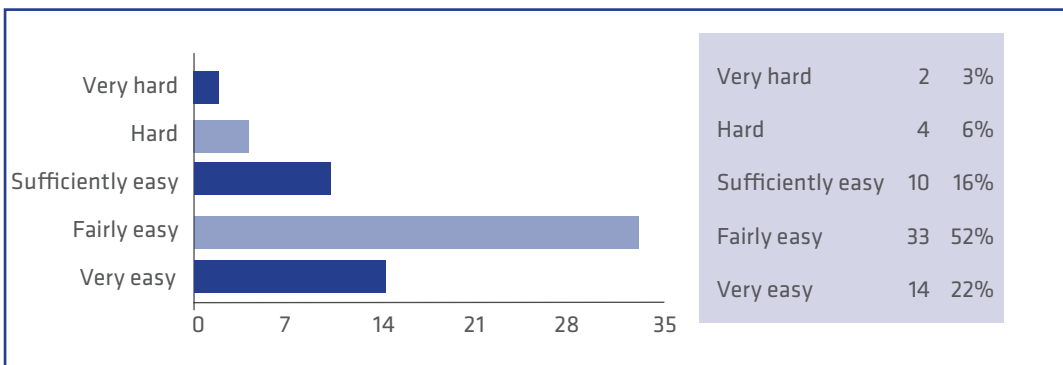
EKNOWLEDGE'S EASE OF USE

One of the key aspects when it comes to assessing the new forum tool is how easy students and consultants found it to use when they were first getting

used to it. Although users had a help manual and support service, the idea was that they were to use the new application as intuitively as possible without making too much effort. The replies show that most users had no problems getting used to using the tool.

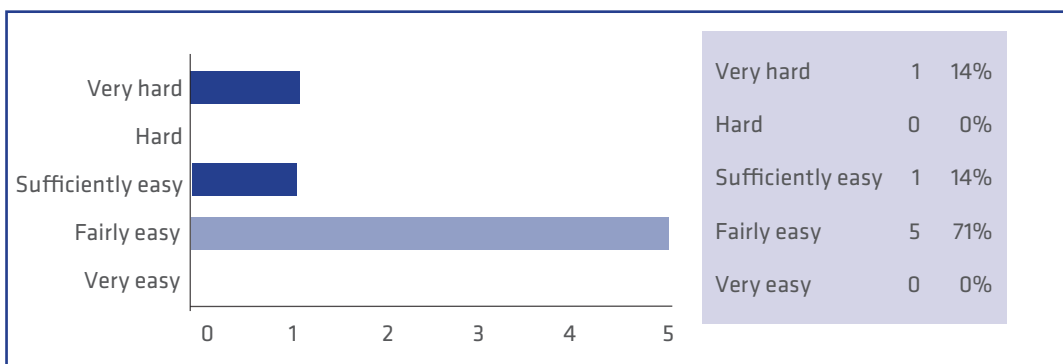
STUDENTS' ASSESSMENT

Did you find it easy to familiarise yourself with how to use this tool?



CONSULTANTS' ASSESSMENT

Did you find it easy to familiarise yourself with how to use this tool?





EKNOWLEDGE'S FUNCTIONALITIES

The online forum application eKnowledge features several functionalities with more specific or less specific objectives in each case, such as facilitating communication, following discussions, managing information inside the personal space, as well as supporting processes for reflection and the joint construction of knowledge.

While the pilot tests were being carried out, students' and consultants' use of eKnowledge's functionalities was monitored. In order to carry out a more comprehensive analysis, users were sent questionnaires asking them to specifically evaluate how easy each of the following functionalities were to use:

- Syndicating contents.
- Options for viewing messages.
- Downloading messages as PDF files.
- Managing attached files.
- Managing drafts.
- Reediting own contributions.
- Starring messages.
- Quotation.
- Cross-references.
- Tags.
- Categories.
- Search options.
- Monitoring students' activity.

➤ A) SYNDICATING CONTENTS

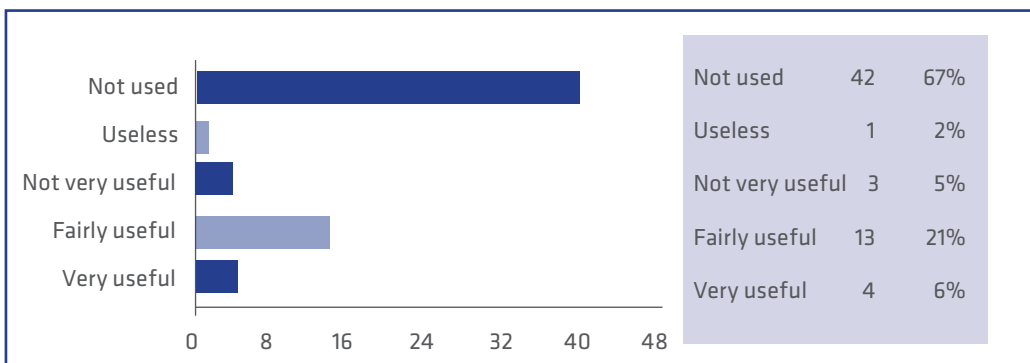
In order to make it possible to follow activity on the forums, eKnowledge offers the option of subscribing to all the active forums within the class or selecting a specific forum or subject. It is also possible to subscribe to one particular user's activity.

use of this functionality can be explained by the fact that it requires users to be familiar with using feed readers such as Google Reader, Netvibes, etc., and at the present time this is not common practice among consultants or students.

Most users did not use this option. However, those who did use it rated it very positively. The low level of

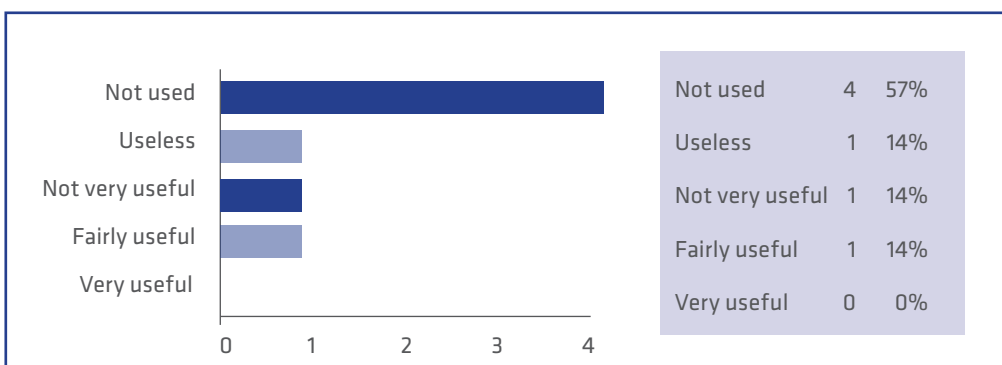
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Syndication (RSS)



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Syndication (RSS)





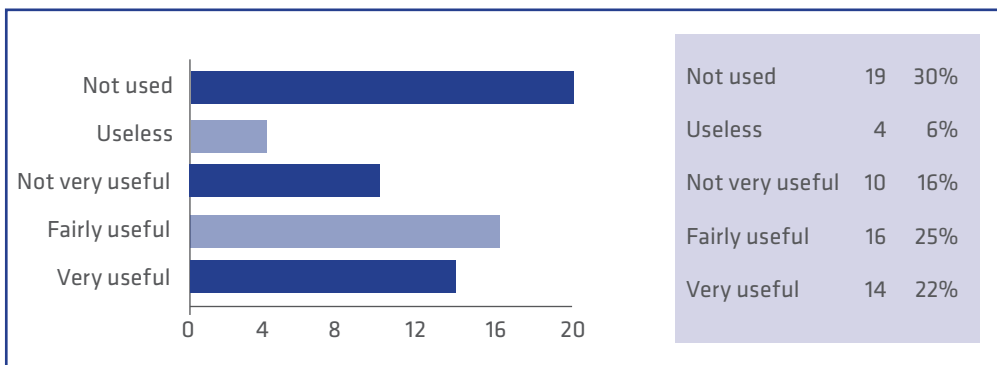
➤ B) OPTIONS FOR VIEWING MESSAGES

eKnowledge users can order and show messages in accordance with different criteria. This offers users a flexible, personalisable work environment where they can view the information in the way that best matches their preferences. The results show a fairly balanced distribution between users who either haven't used this functionality or don't rate it as very useful and users who rate it as fairly or very useful. The consultants' assessments appear to be more positive as a whole.

These results reveal that this functionality is not seen as explicitly useful or that its design does not really meet users' needs.

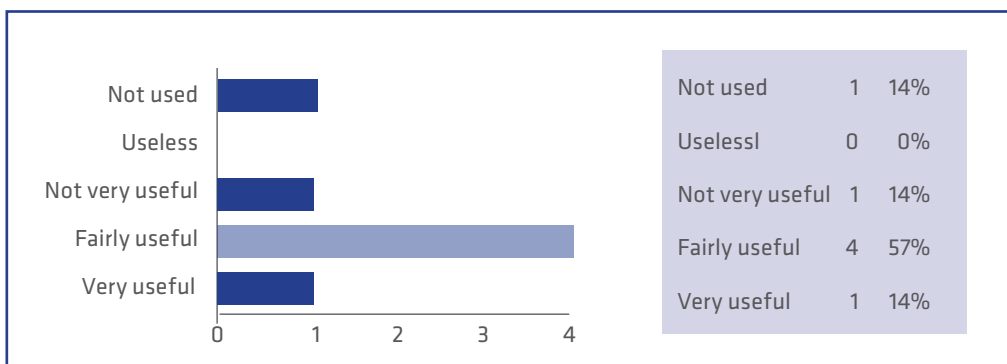
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Options for viewing messages



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Options for viewing messages



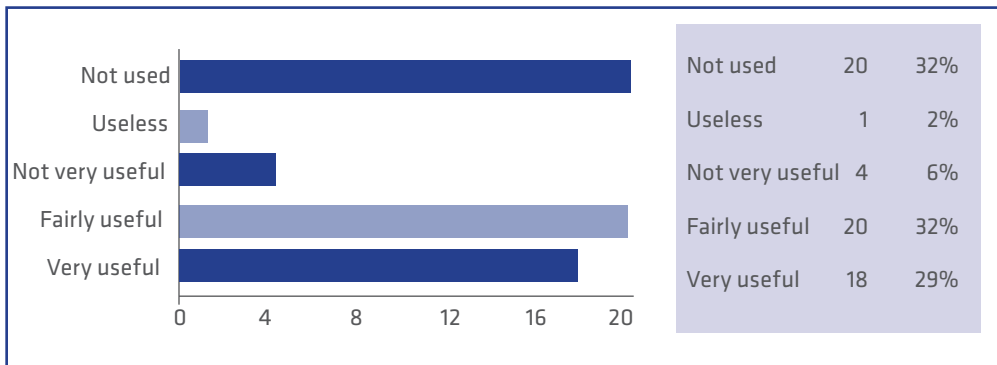
➤ C) DOWNLOADING MESSAGES AS PDF FILES

One of the aspects that was given a lot of attention when designing the tool was flexibility. Thanks to the possibility of selectively downloading messages by subject as PDF files, users can manage their online and offline work time.

In this case, most of the consultants and students rated its usefulness positively, although it should be noted that approximately a third said they had not used this functionality.

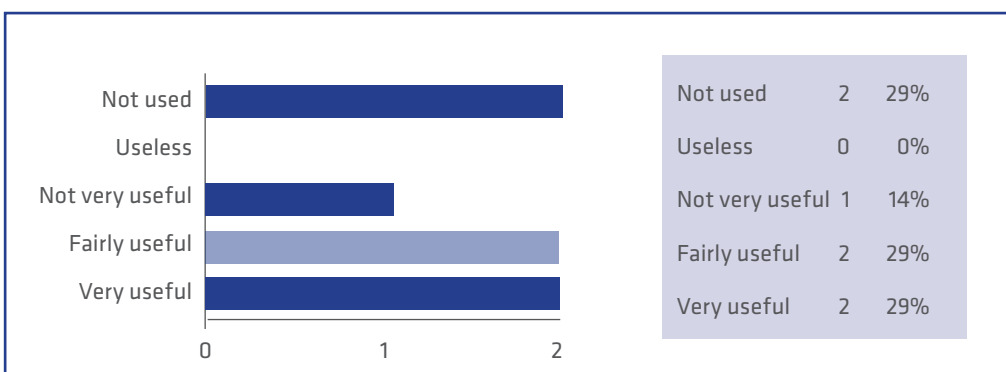
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Download messages as PDF files



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Download messages as PDF files





➤ D) MANAGING ATTACHED FILES

Each eKnowledge user can access and manage the attached documents they brought personally to the forums by means of their personal space. In general, this functionality was rated very positively, although it appears to have been used more by the group of consultants.

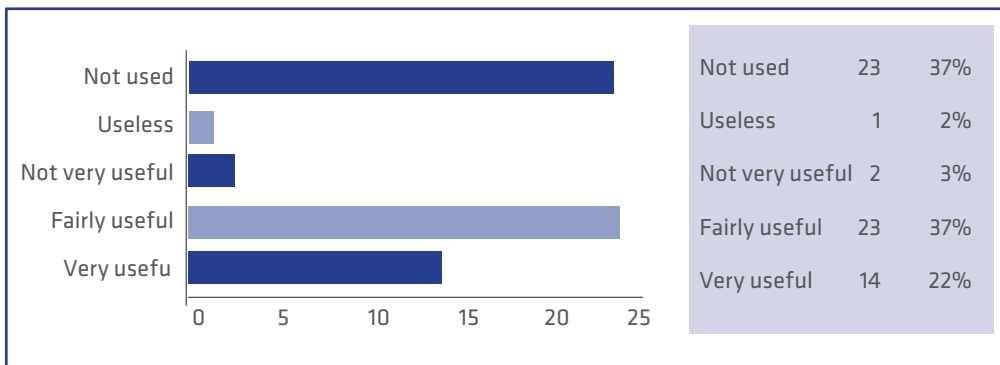
consultants make more use of the functionality for attaching files.

Ideally, this functionality should evolve so that both students and consultants would have access to a kind of directory where they could store all the files sent to each forum and manage them from their personal space.

This could be explained by the fact that the consul-

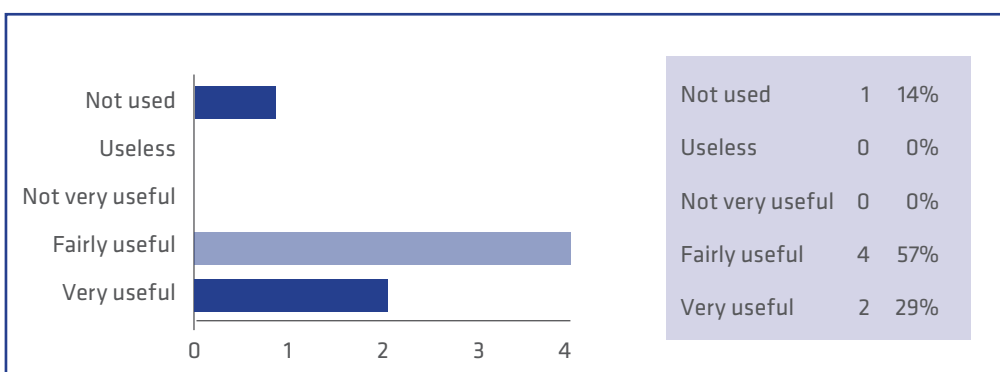
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Managing attached files



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Managing attached files



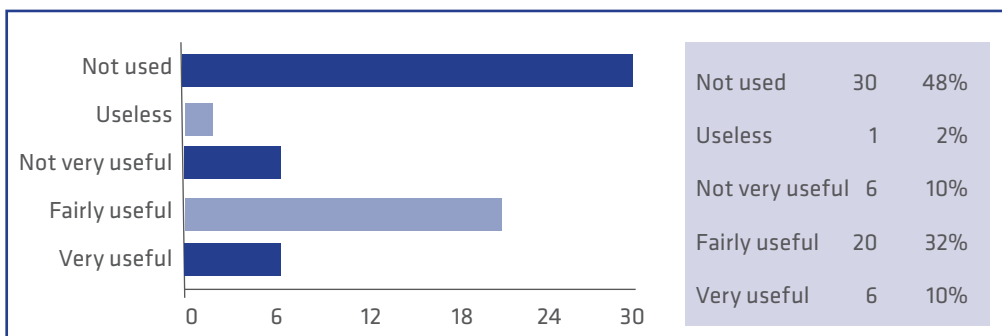
➤ E) MANAGING DRAFTS

Edited messages can be saved as drafts before being published. In this way, users have a space to save and manage their contributions to the forum before making them visible to the rest of the users. This option is clearly useful for teaching, since parts of an activity can be prepared beforehand and then published as and when suitable. In the case of students, it could be useful for preparing their contributions at successive intervals, so that they can improve and complete them in private until they are finished and ready to be made public.

However, the results show that this option was not rated particularly highly, with a fairly balanced distribution of positive and negative assessments, if we include the percentage of users who said they had not used it within the negative group. There should be further in-depth analysis of whether this is a problem of usability or a genuine lack of interest.

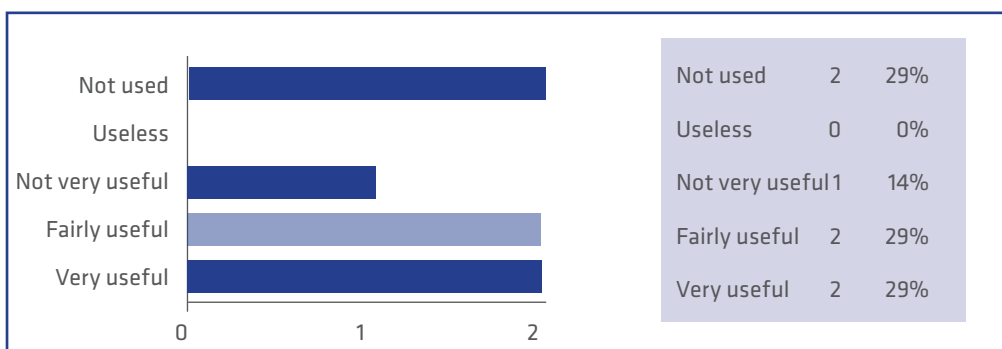
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Manage drafts



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Manage drafts





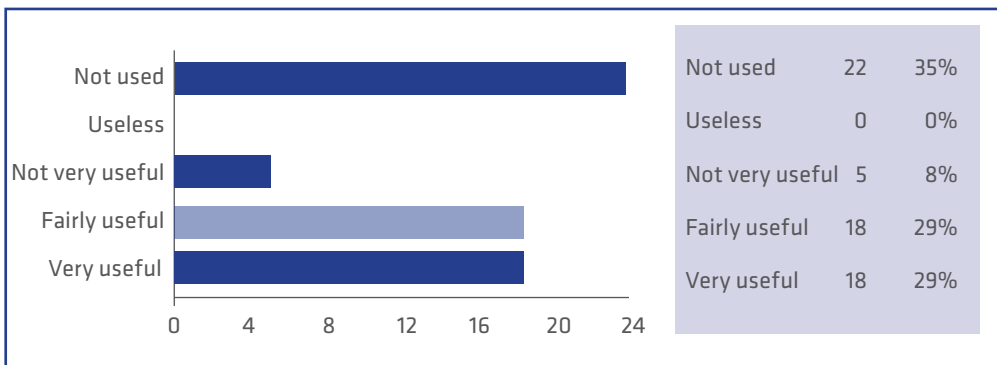
➤ F) REEDITING USERS' OWN CONTRIBUTIONS

Once a user has published a message on eKnowledge, they have the option of reediting it and making any necessary changes. After a message has been reedited, the date of the latest update and the name of the author are shown within the body of the message. With the current configuration, students can only edit their own contributions, whereas consultants are authorised to edit all of them.

This functionality was rated extremely highly by consultants, although it is not clear whether they use it to correct their own messages or students'. In the case of the students, a third said they had not used it and a small proportion did not think it was very useful, while 60% thought it was fairly or very useful.

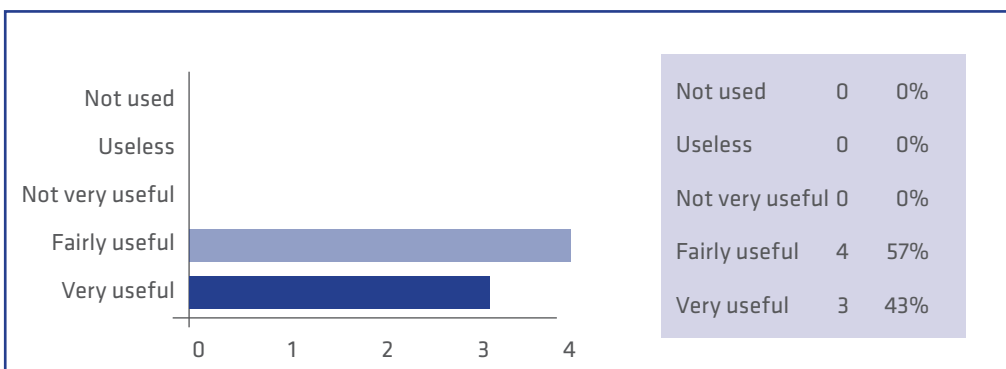
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one- Reedit own contributions



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Reedit/edit own contributions



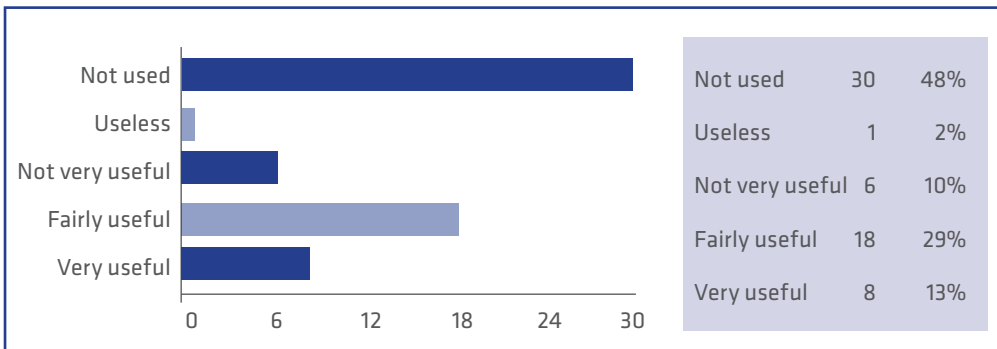
➤ G) STARRED MESSAGES

Users can mark the importance of each message sent to the forums by giving it one to five stars. The system takes the average of users' ratings and shows the overall result. Placing the cursor over the stars brings up information on the number of votes cast and the average obtained. Each user can vote only once and if they do so more than once, the value shown is always the result of the last vote. This functionality becomes more practical and useful the greater the number of users who use it, which necessarily means getting students to use it. The replies show a very wide range of assessments.

Almost half of the students said they had not used it and most of the rest of the students thought it was fairly or very useful, with a very low percentage of negative assessments. In contrast, most of the consultants viewed it somewhat negatively. Once possible interpretation of this is that whereas the students saw it as a social tool for recognising the quality of contributions, the consultants based their assessment on its genuine usefulness for systematically assessing students' contributions.

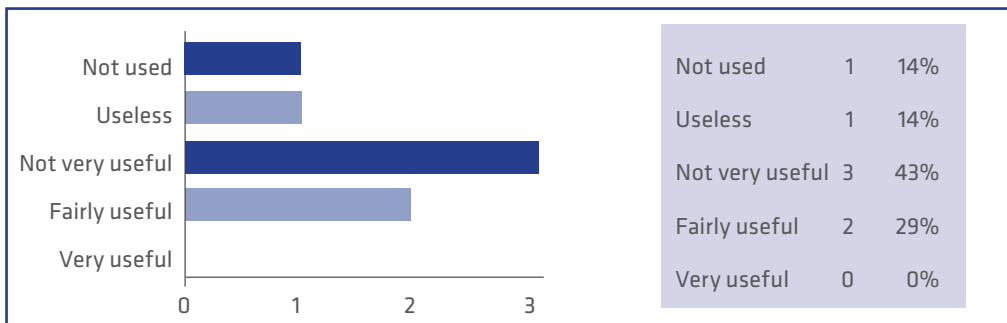
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Starred messages



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one -Starred messages





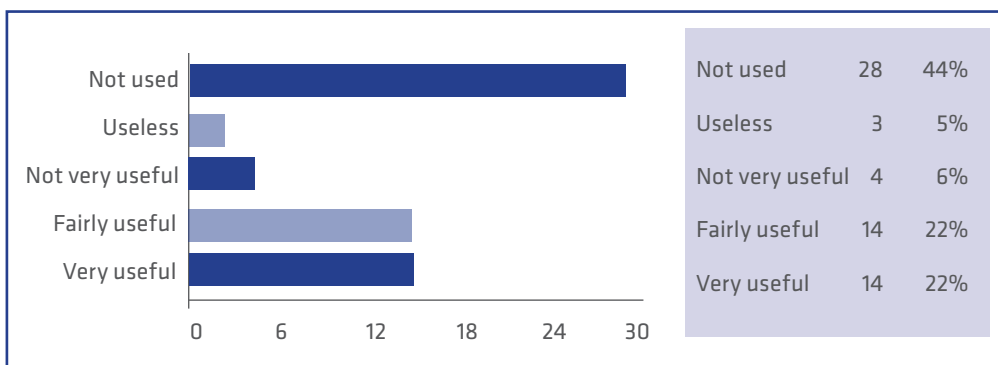
➤ H) QUOTATIONS

Users can make new contributions by making direct references to previous contributions by using the quotation option. This option can also be useful for replying to a message from another colleague in a clearer, more direct way. In this way, users can write their comments and still keep the original contribution in the body of their new message.

A considerable percentage of users had not used this option, probably because they were not aware of its use in replying to a specific message. Another possibility is that there was no particular interest in replying to a given message in the conversations carried out, but rather in users sending their own contribution to the general debate. Most of the users who had used it rated it positively.

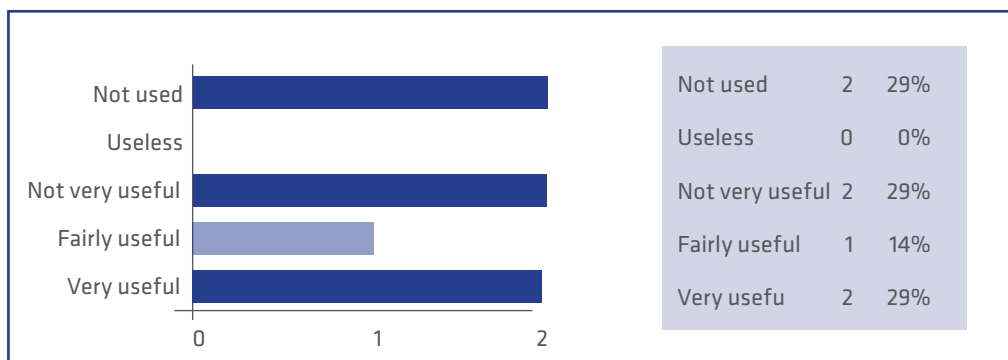
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Quotations



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Quotations



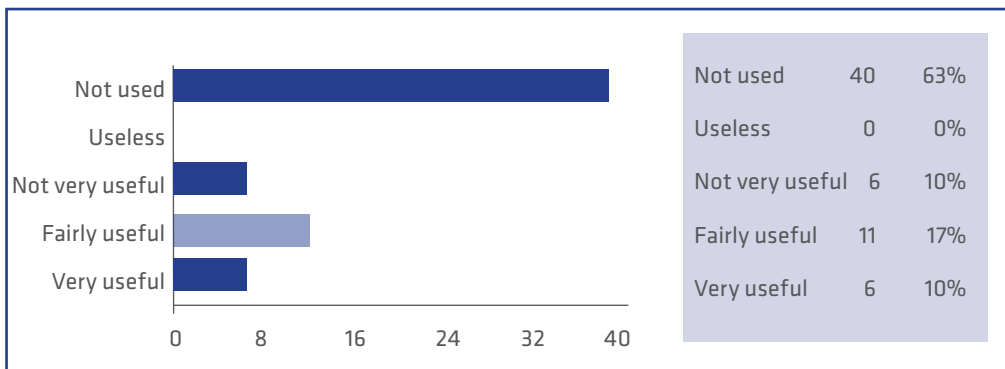
➤ I) CROSS-REFERENCES

In order to help interrelate contents contributed to the forums by different users as much as possible, users can use a specific functionality to link new messages with other previously published messages, both within the same subject and discussion forum and in other subjects. The search tool lets users identify the message or messages they want to link to and add a link to make it possible to read them from the original message.

A high percentage of users had not used this option, especially in the case of the students (63%). In addition, approximately a quarter of the students and almost half the consultants rated it positively. This functionality probably needs the consultant to set out a series of specific practices and express guidelines, given that its complexity makes it unlikely to be used spontaneously.

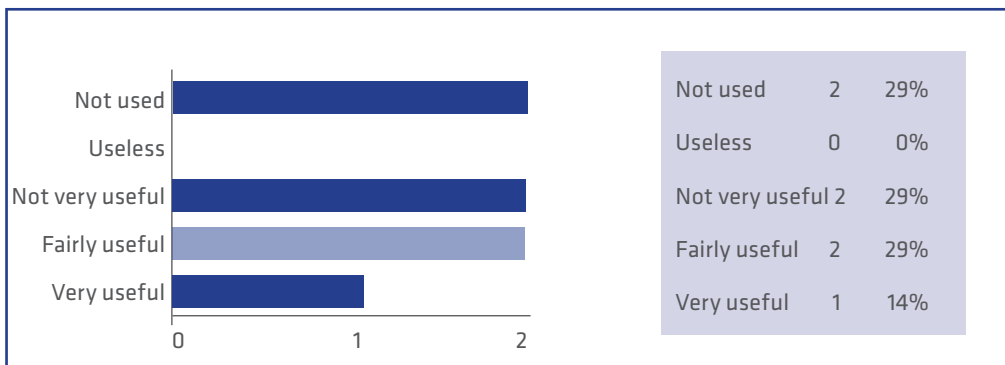
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Cross-references



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Cross-references





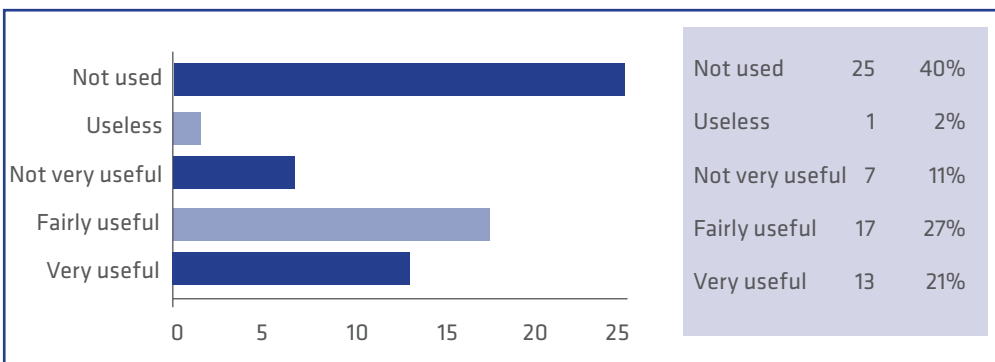
➤ J) TAGS

Tags let users use keywords to identify and classify the content of their contributions. Although the tags are linked to specific messages, they are also brought together at subject and forum level in the form of tag clouds to identify their general contents. These clouds also make it possible to move between tags and offer easy access to the set of contributions that bear a specific tag. In a similar fashion to what happens in folksonomies, tagging eKnowledge contents comes about by the collective action of its users.

The replies received show that a considerable percentage of students and consultants had not used this option. However, those who had done so mainly rated it positively, which may be due to the greater or lesser extent to which users are familiar with tagging systems used in other social tools.

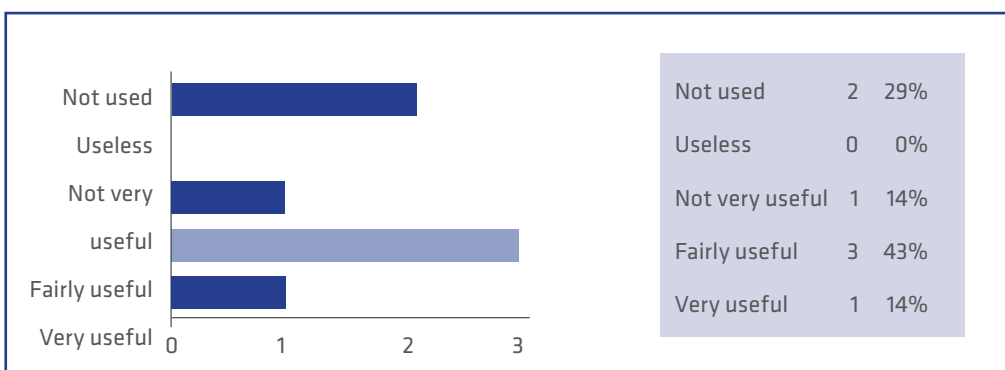
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Tags



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Tags



➤ K) CATEGORIES

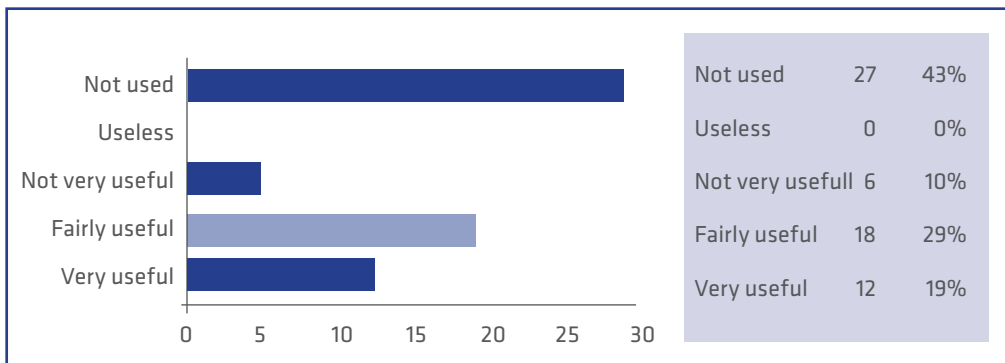
With eKnowledge, consultants can define a set of categories that students should assign to each of their messages to state the function of the content of that particular contribution. The purpose of this option is to encourage students to think about their own contributions while they are taking part in the forums. It also makes it possible to structure the content of contributions to the forum in accordance with given criteria. In other words, these criteria can take shape by teachers defining a series of given categories (for

example, the following categories could be useful in a documentation and debate process on a subject: “argument in favour or against”, “question”, “theory”, “proven information”, “example”, etc.).

A high percentage of users had not used this option; however, most of those who had done so rated it positively, especially the students, although we have no evidence of the reasons for this assessment

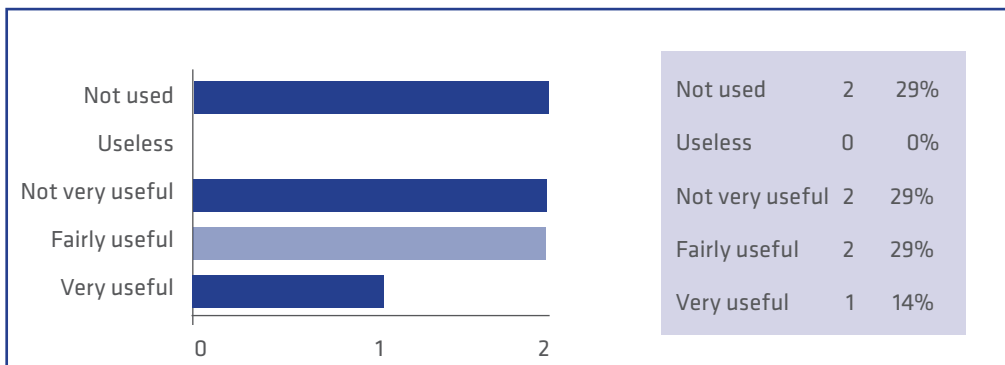
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Categories



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Categories





➤ L) SEARCH OPTIONS

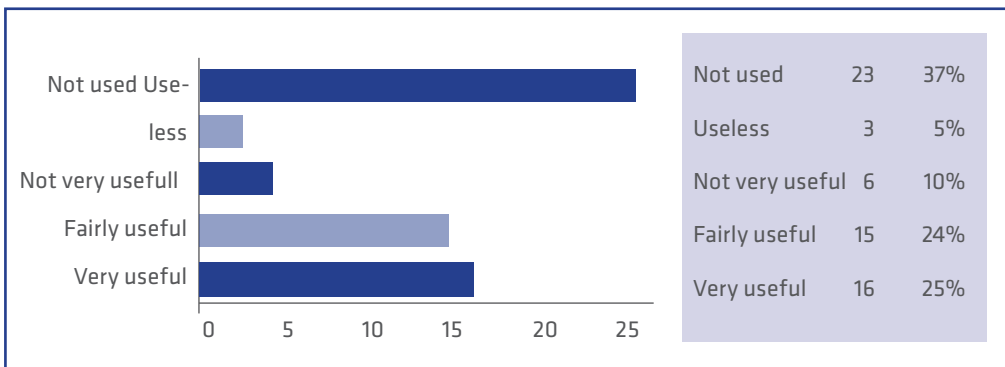
By means of different search options (simple and advanced) eKnowledge users can track down information published on the forums. The purpose of this function is to make it easy to find and review published messages, in accordance with users' interests.

are because this option does not work well and is badly designed or because users are simply not interested in using it (because they have no need to).

Curiously, a large number of users had not used this option, although most of those who had done so rated it positively. There should be further analysis into whether the negative assessments, although in the minority,

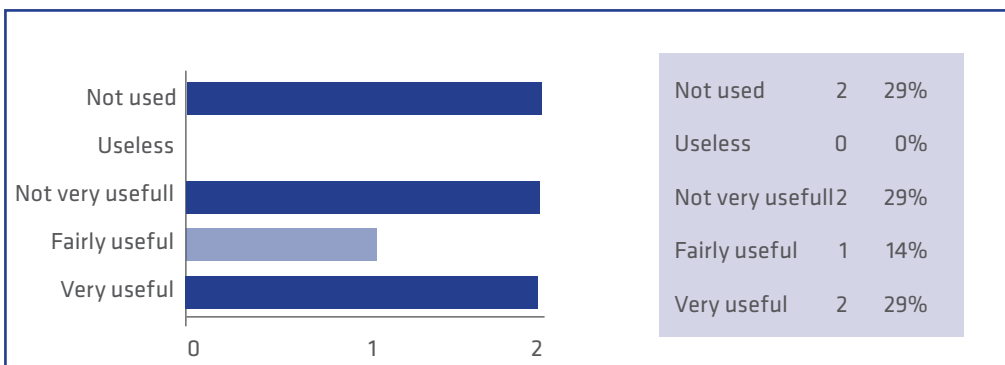
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Search options



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Search options



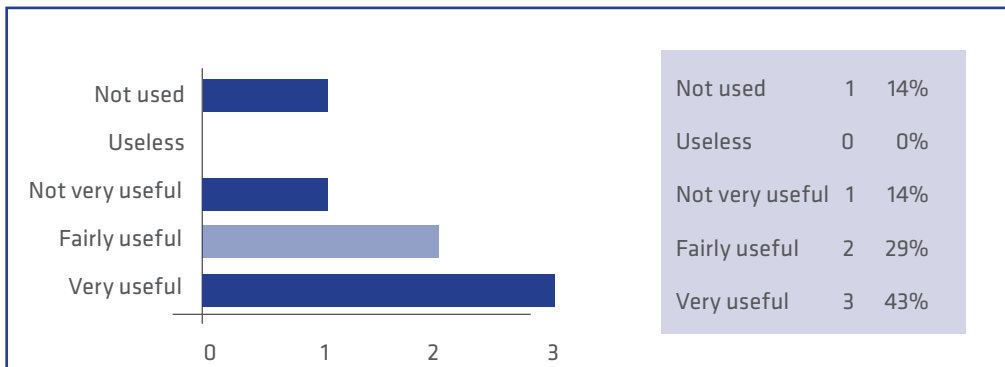
➤ M) MONITORING STUDENTS' ACTIVITY

In order to meet the needs of consultants, eKnowledge includes a series of specific functionalities that are only accessible by users with administrator rights, which in our context corresponds to the profile of lecturer and consultant. Consultants can access information concerning students' participation in forums. In this way, they can visualise the record of each student's activity individually and easily assess the quantity and quality of their contributions.

In general, this functionality was rated positively by consultants; only one of them did not think it was very useful and another one said they had not used it. Bearing in mind this functionality's potential for facilitating assessment of students' processes of participation in the forums, there should be further in-depth analysis of how to make it more effective.

CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Student Monitoring





THE TOOL'S SUPPORT FOR LEARNING ACTIVITIES

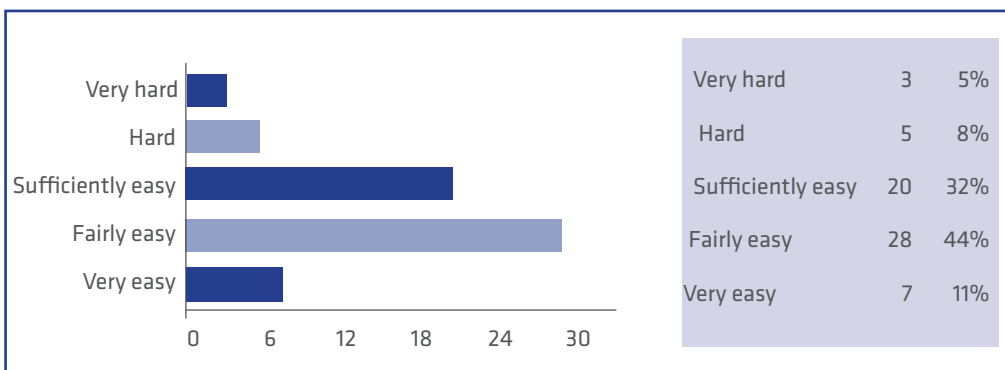
➤ A) COMMUNICATION BETWEEN STUDENTS AND CONSULTANTS

The eKnowledge tool is designed as a space for debate and collaboration, and above all as a space for communication between students and consultants, as well as between students themselves. Bearing in mind that the tool is implemented within an e-learning context, communication becomes a key factor in students' learning process.

The replies show a mainly positive assessment, especially amongst students. Judging by the consultants' replies (57% thought the improved communication was "sufficient"), the feedback between consultants and students still requires better optimised specific options.

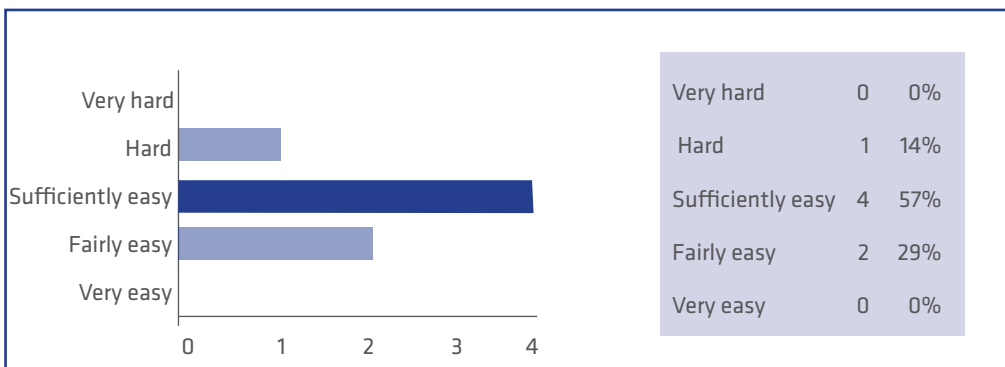
STUDENTS' ASSESSMENT

Does the tool help improve communication with colleagues and the consultant?



CONSULTANTS' ASSESSMENT

Does the tool help improve communication and shared feedback between students and consultants?



➤ B) MONITORING AND MANAGING INFORMATION

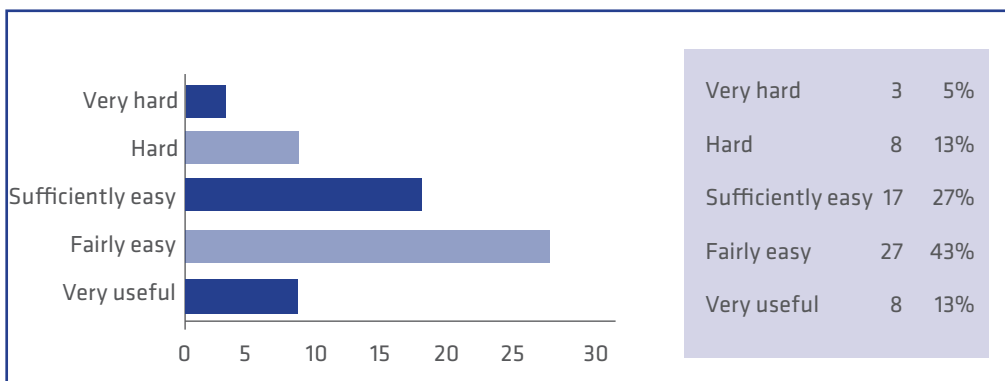
The design of eKnowledge paid particular attention to the aspects involved in monitoring and managing the information created in the discussion spaces.

The replies show that this aspect receives a largely positive assessment, with 56% of students and consultants rating it positively, approximately a third

of respondents judging it to be “sufficient” and around 15% seeing it as insufficient. There should be further analysis into how the approximately 45% of users who did not rate it positively would go about improving this issue.

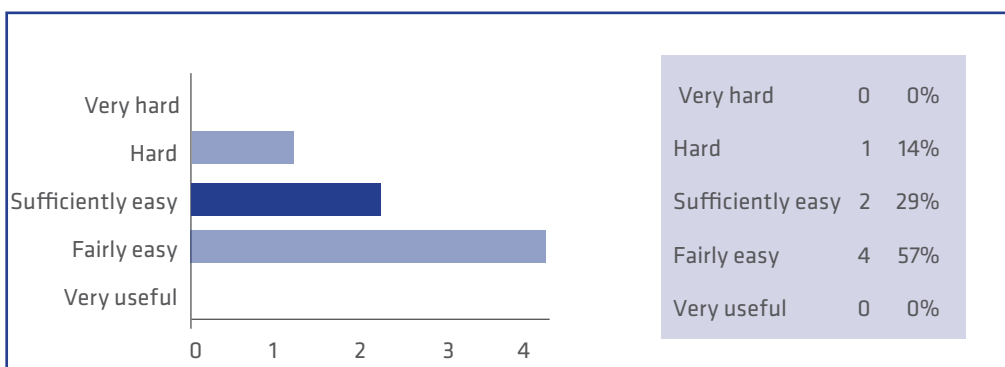
STUDENTS' ASSESSMENT

Do you think the tool's functionalities make it easier to follow discussions and debates?



CONSULTANTS' ASSESSMENT

Do you think the tool's functionalities make it easier to follow discussions and debates?





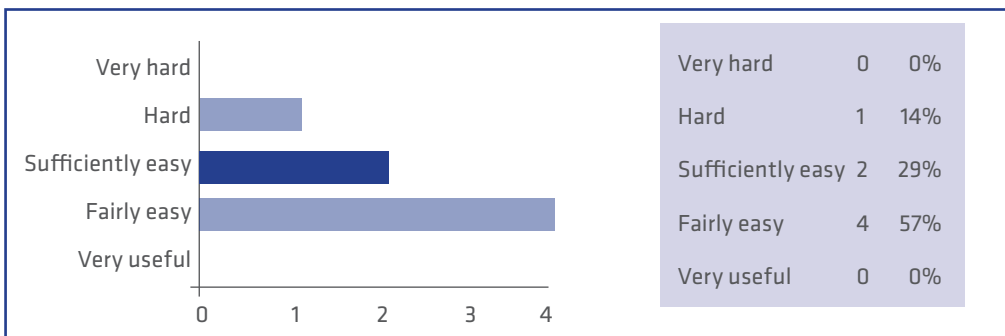
➤ C) REFLECTION AND JOINT CONSTRUCTION OF KNOWLEDGE (ONLY FOR CONSULTANTS)

The eKnowledge application aims to go above and beyond the usual uses of debate by incorporating a series of functionalities designed to support the processes of reflection and joint construction of knowledge.

The consultants rated the tool's support for these kinds of processes fairly positively. There should be further analysis into what exactly they base their assessment on.

CONSULTANTS' ASSESSMENT

Do you think the tool promotes the development of processes of reflection and joint construction of knowledge?



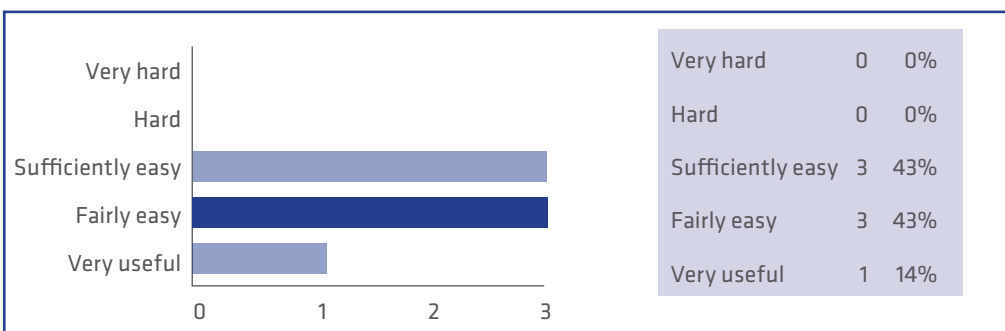
➤ D) ACHIEVING OBJECTIVES (ONLY FOR CONSULTANTS)

eKnowledge is aimed at a very broad teaching community. For this reason, the tool is designed to offer solutions for different teaching and learning strategies.

The replies show that the tool was useful in general for achieving the objectives the consultants had set for the corresponding learning activities.

CONSULTANTS' ASSESSMENT

Did the tool help you achieve the objectives you set for the activity?



SUPPORT RECEIVED FOR USING EKNOWLEDGE ((DURING THE PILOT TESTS)

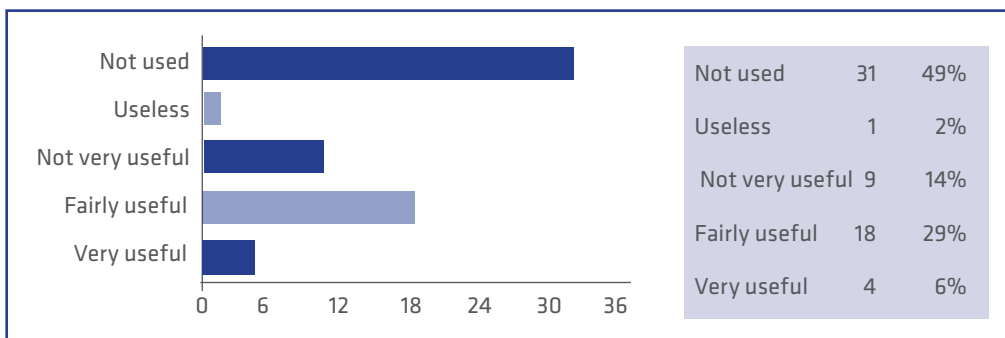
➤ A) THE TOOL'S SUPPORT FUNCTIONALITY

Although the eKnowledge interface is designed as a user-friendly, intuitive space, it features a help section where users can access the user manual (in separate versions for consultants and for students), as well as a series of FAQ, to help deal with any queries concerning use of the tool and also find out more about the use of its functionalities. The replies show that this option was not used by most students, although those that had used it found it useful in general.

The fact that this option had not been used could be interpreted positively as showing that in general the tool is intuitive enough for users to use themselves. In the case of the consultants, however, the same proportion found it useful as those who rated it as not very useful. It would be worth finding out what purpose they had in mind when they used this help and what motivated the negative assessments.

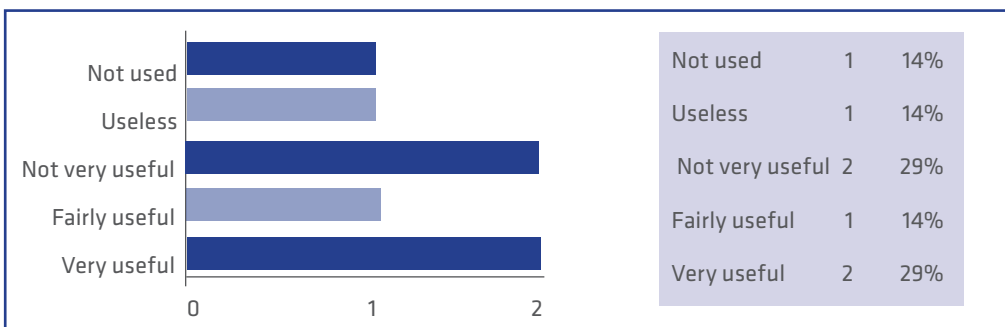
STUDENTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Help



CONSULTANTS' ASSESSMENT

Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one - Help





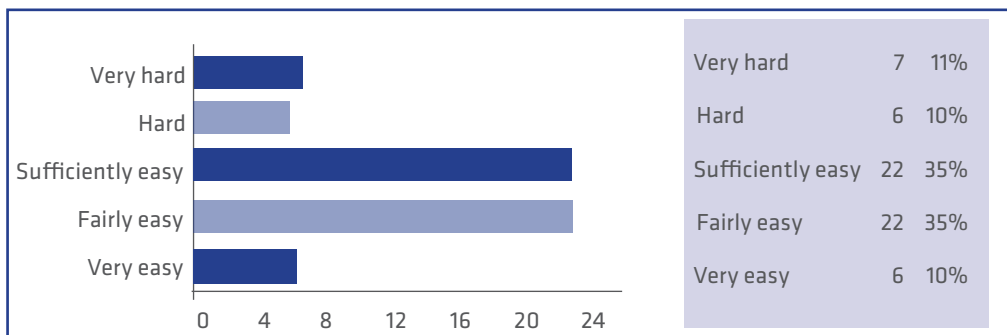
➤ B) USER MANUAL (FOR STUDENTS)

The eKnowledge Help section includes a downloadable user manual for the tool. In this case the question centred on the manual as support material where students could find a description of the functionalities available, as well as an illustrated step-by-step explanation of how to carry out the commonest actions in the forums.

Its usefulness for offering guidelines and suggestions for use was rated mostly positively, with 20% of students rating it negatively and 35% rating it as sufficient.

STUDENTS' ASSESSMENT

Did the user manual offer you enough useful guidelines and suggestions?



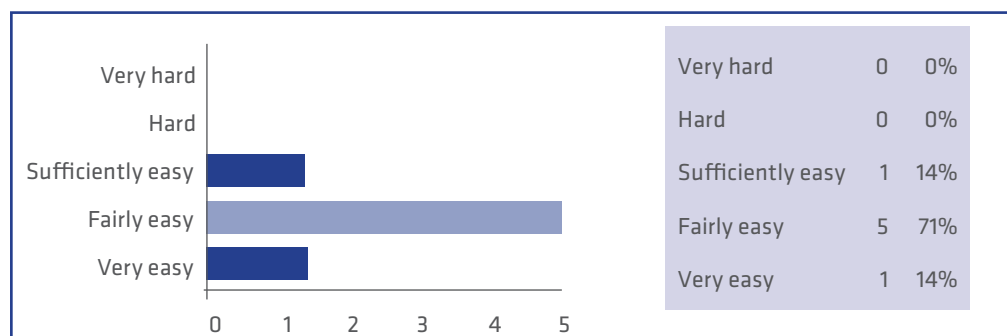
➤ C) TRAINING AND PRIOR DOCUMENTATION (FOR CONSULTANTS)

This question is designed to get consultants to assess the training session they attended before the start of the pilot tests for eKnowledge, as well as the support documentation they were given.

Their overall assessment was extremely positive, which suggests that more face-to-face training sessions ought to be organised.

CONSULTANTS' ASSESSMENT

Did the documentation provided and the previous advice on the tool offer enough useful guidelines and suggestions for using it?



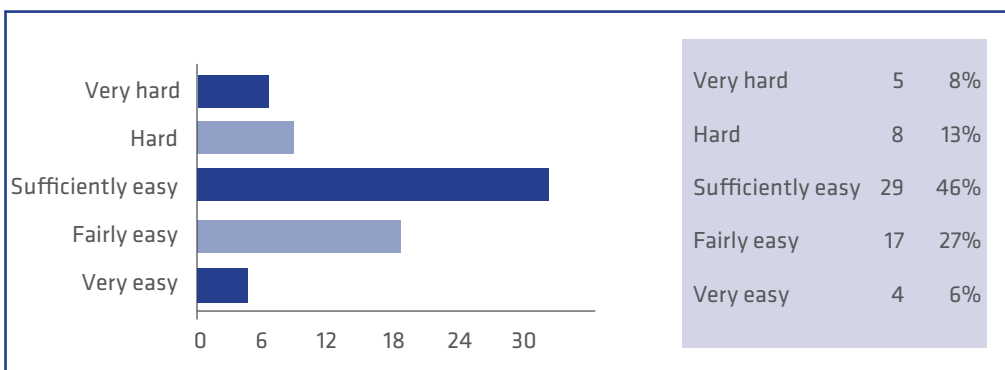
➤ D) TECHNICAL SUPPORT

This question aims to get assessments of the technical support provided by the Educational Technology Area. This includes the online space set up in the form of a blog in response to the technical issues related to the use of the application, as well as offering effective responses to the problems that arose.

Most of the students rated this support as sufficient and satisfactory, whilst approximately 20% thought it was insufficient. It would be worth analysing whether it is possible to improve this support and if so how.

STUDENTS' ASSESSMENT

Do you think the technical support provided through the problem blog is a suitable system for solving technical problems with the tool?





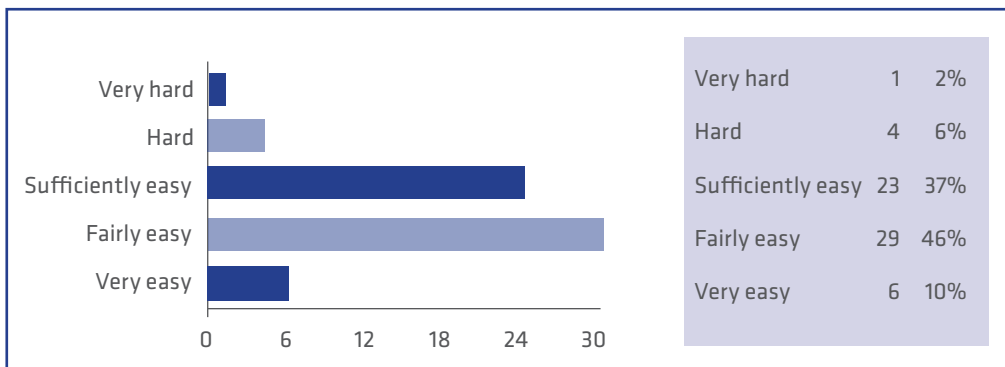
OVERALL ASSESSMENT OF EKNOWLEDGE

➤ A) MEETING NEEDS

eKnowledge is addressed essentially at two kinds of users with different needs: students and consultants. In general, both consultants and students thought that eKnowledge meets their respective needs sufficiently.

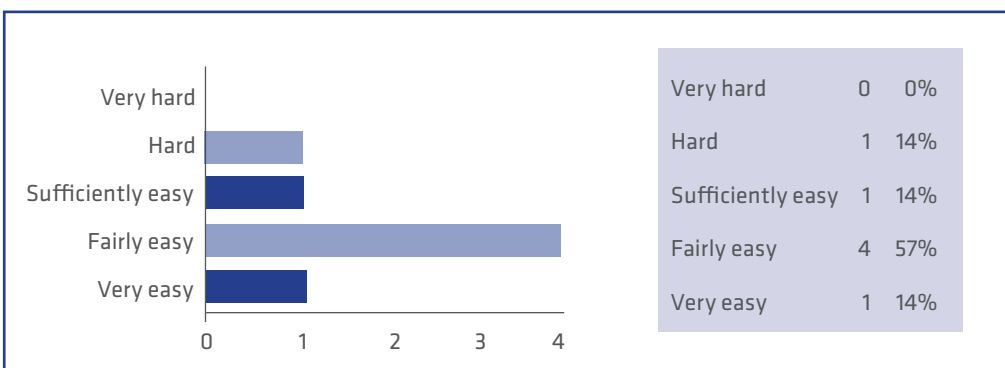
STUDENTS' ASSESSMENT

In general, do you think the eKnowledge tool meets your needs?



CONSULTANTS' ASSESSMENT

In general, do you think eKnowledge meets your teaching needs?



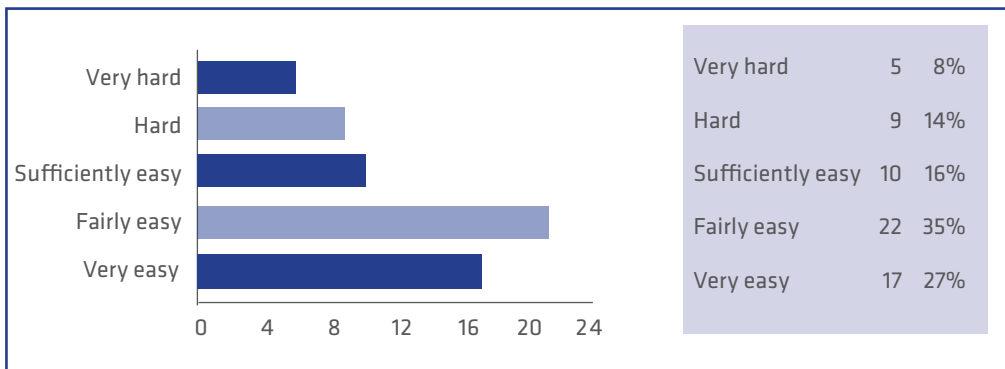
➤ B) USE OF THE TOOL IN OTHER SUBJECTS

In the long term, the idea is for eKnowledge to become the forum tool on the UOC Campus. The tool's scalability is determined largely by users' experience of using it.

Both groups of students and consultants expressed a fairly resoundingly positive interest in continuing to use the tool in the future.

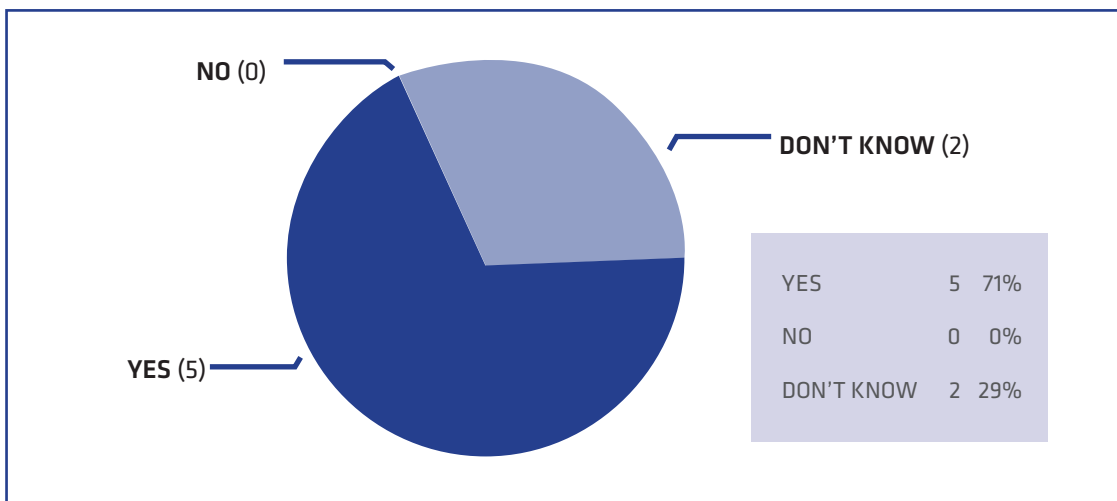
STUDENTS' ASSESSMENT

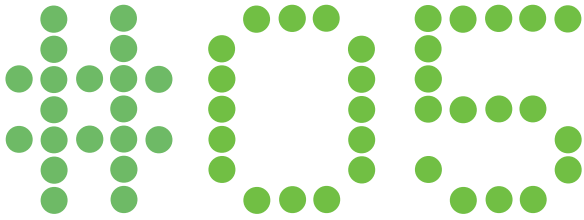
Would you like to use the eKnowledge tool in other subjects?



CONSULTANTS' ASSESSMENT

Would you be interested in using the eKnowledge tool in another semester?





Garcia, I; Durall, E. (2011) *eKnowledge Project: Developing and piloting a forum tool to support the collaborative construction of knowledge on the UOC's Virtual Campus*. Barcelona: eLearn Center. UOC.



GENERAL ANALYSIS OF FINDINGS AND SUGGESTIONS FOR IMPROVEMENT

In this section we offer a more general assessment of the findings from the questionnaire and also include participants' qualitative comments, as well as some informal assessments gathered while the first pilot tests were being carried out.

Starting with the tool's strengths, one of the aspects that users most appreciated was the design of the interface. Almost all users thought that its engaging, user-friendly and intuitive design made it easy to view messages, communicate and monitor activity. Specific points stressed include its ease of use and the fact it was easy to see how it worked. Most users said this made it easier for them to make their way around and find the relevant information they were looking for.

It is seen as a more comprehensive tool than the current one, since it offers not only the basic options, but also adds new, necessary ones, such as selective downloading content as PDF files, the option of embedding multimedia items within the body of the message, accessing a personal storage space for sent attached documents, the option of social tagging of contributions, selectively signing up to subjects and authors via RSS, etc. It should be said that these new options have mostly benefitted those users who are most accustomed to using these modern-day social tools, whereas users less used to them found them less of an advantage.

The group of consultants stressed above all the option of organising contributions by subject, since it makes it possible to structure debates by opening up different lines of agreement with the content or separating the different phases of discussion, which makes it easier to understand and monitor students' actions and also help improve their quality.

Nevertheless, users also identified several aspects that could be improved. For example, although they thought the environment was intuitive, they said it was sometimes difficult to find certain options that are tucked away, which means they do not make use of them, as they are unaware of them. In fact, one of the surprising findings is the low level of use of some functionalities in contrast to the positive assessment they received in general by those who had used them. Below we set out and expand on some of the specific problems previously identified and presented, along with the quantitative results of the questionnaire and some of the possible suggested solutions.

► INTEGRATION WITH THE UOC CAMPUS

There is room for improved integration with the UOC Campus in several different areas. The most requested option was for notification of new messages on the My UOC screen to enable users to keep an eye on what was happening. Other suggestions concerned the connection with other Campus services, for example, access

to personal profile and sending mail directly by clicking on a user.

➤ NAVIGATION.

In some cases, users had problems accessing certain functionalities that were not very visible. Some aspects related to the design of the interface and information architecture need to be looked at to make the tool as intuitive as possible.

The tool does not save the starting page when users reply to an action, which means they have to go back to the subject and search for the corresponding page again.

Navigation within a forum/subject becomes unwieldy when there are lots of contributions and therefore lots of pages.

Suggestions:

- *Option to open different windows simultaneously so users can always keep one reference one open while they carry out actions within the forum.*
- *Add another option to help identify the level users are at.*
- *Streamlines options for going forward or back between the pages for a subject.*
- *Provide a "quick view" to see the list of messages (author and title) without having to show all the content so that users can access wherever they want to go more easily.*

➤ VIEWING MESSAGES.

Unread/new messages and read messages are not clearly distinguished. The new-message filter on the homepage is not useful, since when users go to the subject, they are not shown just the new messages, but all the messages in the subject.

Suggestions:

- *Mark unread messages more clearly so they can be spotted quickly.*

➤ *Save options for viewing, for example, the order of incoming messages as ascending or descending, in quick view or complete view.*

➤ *Add icons (points, stars, signs, etc.) to individual users to mark messages in accordance with their own interests or criteria.*

➤ EDITING OR REEDITING MESSAGES.

Not all options on the editing menu always work correctly. There have been problems with message format. For example, messages suddenly change font and size, colour, style or alignment. This does not just happen to isolated messages, but after a point it affects all the messages following the first one.

Sometimes, the text editor does not include the changes in style marked by users. The message preview randomly changes the format chosen and the formats selected with the copy and paste option change as well. Bits of HTML code are seen when pasting texts written in Word.

Students were not always able to reedit messages. Loss of connection with the server is a problem, since the messages being edited are not saved.

➤ "HIERARCHICAL" VIEWING OF DISCUSSION (CONVERSATION THREAD).

There is a need for an option for viewing nested messages in the form of a tree so that users can follow the discussion threads instead of a list in chronological order.

Suggestions:

- *Create secondary discussion threads within each subject to act as secondary subjects.*
- *Set up an option for viewing the discussion as a tree.*
- *Indicate the replies to each message so that they can be accessed directly.*
- *Change the quotation option in a message replying to a specific user.*



➤ RSS SUBSCRIPTION.

LRSS subscription recreates all the read and unread messages. If there is lots of activity in the forum or the subject this functionality loses its purpose. It has not been used a lot since users are not familiar with feed readers/managers.

Suggestions:

- Offer an alternative email subscription to specific subjects or forums.
- Create a system of notifications when opening a new subject, when the consultant sends a message, and when replies to messages are created.

➤ TAGS (OR KEYWORDS).

They are not clearly identified on the tool, and it is not clear how to use them, who creates them, when they are assigned (a priori or during the process, in relation to a message/subject...). They are seen as useful, but they need to be better defined and it needs to be made clearer how to manage them.

➤ SEARCH.

The access to the search option is not very clear. Searching by keyword does not appear to work with tags. Searching by author is neither very intuitive nor easy to use, since it works with the campus username, and in many cases this information is either unknown or is not as obvious as the user's full name (name and surname).

Suggestions:

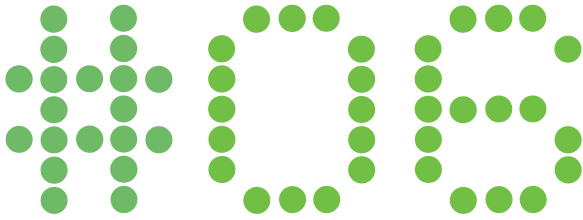
- Create an access to the search engine from the tool's homepage (currently access is only possible from within a forum).
- Increase and improve search criteria, both unique and combined: by tag, user, assessment, category.

➤ MONITORING USERS.

Developing specific functionalities aimed at recording and assessing students' participation would enable continuous assessment to be carried out more easily and more effectively.

Suggestions:

- Expand the information on the record of each user's activity.
- Include an option for adding the consultant's notes on the individual record that can either be made visible to or hidden from students.
- Include comments in the form of Post-it notes or comments placed on top of the body of the messages.



CONCLUSIONS AND FURTHER ACTIONS WITHIN THE PROJECT

Although the tool is still at the test phase and is pending implementation of a series of improvements, it can safely be said that the findings of the first pilot test have been very positive. In general, users have familiarised themselves with the tool fairly quickly and easily, think that it meets their needs and are ready and willing to continue using it.

On the technical side, most of the problems detected were dealt with within a reasonable period of time and were fairly few in number, bearing in mind that there will always be problems with a tool at the test phase.

One of the aspects that eKnowledge users most appreciated was the design of the interface. Although they identified several aspects that could be improved, users in general made clear their satisfaction with the tool by rating it far above the current forum tool currently available on the Campus (including the Debate, Forum and Notice Board applications)

We could say that the tool has achieved its objectives in terms of versatility and flexibility, although there is still room for improvement in the way it covers certain uses. There are clearly two kinds of fairly well-defined users: those who have a lot of experience with the network and have used different social programming tools, and those who only make sporadic use of the tools available on the UOC Campus and, for example, their workplace. The first group is very keen to see innovative tools on the Campus and is very comfortable

and satisfied with the new forum tool. The second group is less keen and find it harder to adapt to the new tool, since they have only had experience with the Campus forum tool. We therefore think it would be a good idea to introduce the new forum tool to new students at the UOC who are not yet accustomed to the traditional forum system on the Campus. Moreover, we do not think it is a good idea to run the two forum tools simultaneously within the same subject and it would be a better idea for the new tool to be incorporated as the only tool available for the Debate, Forum and Notice Board functions.

There is also a series of considerations related to the project's goals that are less directly linked to the tool than more pedagogical aspects or those concerning implementation. These are important issues for developing other innovation projects similar to eKnowledge that should be borne in mind above and beyond strictly technological conclusion.

A) Training teaching staff.

When introducing a new technological training tool, the training needs of the teaching staff, which includes both lecturers and consultants, should be taken into account. In this project different actions were set up to help train the lecturers and consultants involved in the pilot tests, both virtual and face to face. Some of these actions were designed essentially to open the project up, get the teaching staff involved and recognise them as key agents in designing the tool and making the most



of its uses. Although these actions did not have quite as much impact as we might have wanted, we think they helped increase acceptance of the tool amongst teaching staff, who are the ones who will determine what use is made of it by students. When surveyed, the consultants rated these training actions positively and expressed an interest in having spaces to set up work groups to share not only information on how to use the functions of the tool, but above all make the most of its teaching applications. This suggests there is a need to consider different kinds of training actions for consultants and lecturers to share the ideas on how to implement its technological innovations from the teaching perspective.

B) Integrating the tool in teaching practice.

As we mentioned on the first few pages of this report, above and beyond developing a forum tool to replace the current one, this project aims to promote learning practices based on communication and collaboration. Achieving this goal means more than simply making a technological tool available to consultants and students, even though this tool includes functionalities to support these kinds of processes. One of the key findings from the results of the surveys carried out with the consultants was how little use was made of the more complex functionalities, that is those functionalities directly designed to support joint reflective and argumentative processes among students. The reason was largely a lack of awareness of the functionalities in question, but above all not knowing how to make the most of them. These functionalities correspond to uses that do not arise spontaneously, but which follow from a given training model that is still not widespread at the UOC. Although an effort was made to get across the advantage in doing so, in most cases no activities were designed that required the use of these functionalities, and since they were not necessary logically they weren't needed. This is applicable to the categories, tags, stars, cross-references, etc. Nevertheless, one positive aspect is that several different consultants noticed this problem and were interested in finding out

the purpose of these functionalities. Some of them spoke of the need to take a deeper look at the use of the tool within the framework of "prototype" teaching-learning activities, that is linking the uses of the tool with learning outcomes and the didactic context in which it is used. Setting the use of the tool within the framework of specific learning activities could be useful for assessing whether to offer the necessary support wherever and whenever needed and in any case to identify therefore where more "educational help" is needed to meet the learning needs of any given situation. In addition, we still need to define a set of clear guidelines for the use of the forum for common communicative situations in class: as a notice board, to hold debates, to monitor students' involvement, etc.

In a future phase of the project it will be important to consider integrating the tool in planning teaching in the different subjects.

At the moment, the idea is to follow a twofold strategy. On the one hand, assess the uses of the tool in learning situations that match a specific design, such as collaborative learning or reflection and construction of discourses around a given subject. In this sense, particular attention will be paid to the use of functionalities aimed at offering support to these kinds of processes. On the other hand, we need to make progress towards making use of the tool more widespread in classes and on the UOC Campus.

Over the course of the second semester of the 2010-2011 academic year, a broader second pilot test was carried out in all subjects of the Free Programming master's (which affected 862 students in total) and the Business Intelligence master's (with 117 students). In this case, rather than overseeing or analysing specific uses, the idea is to significantly increase the number of classes and therefore users. In this way it will be possible to assess the tool's scalability before incorporating it across the UOC Campus in a more widespread fashion.

In parallel, the eLearn Center is keen to continue monitoring and assessing use of the tool in learning situations that match a specific methodological design, such as collaborative learning or joint reflection and construction of knowledge around a given subject to make it possible to put into practice functionalities designed with this goal in mind. We want to work on integrating the tool in learning activities, from the moment of planning until assessment, that is incorporating use of the tool in planning teaching of the corresponding subject.

More qualitative information is needed from the lecturers taking part to help us get a better interpretation of the quantitative results obtained from the questionnaire. This twofold approach aims to cover assessment of the pending improvements to the tool, from both a technical and a teaching perspective. Once the necessary changes have been made, eKnowledge will be able to be implemented as the new forum tool on the Virtual Campus for UOC classes.

In addition, the Educational Technology Area plans to carry out user tests to obtain more accurate information on the tool's usability and therefore produce a more focused design adapted to students and teachers as the main users.



APPENDIX 1: LETTER TO THE STUDENTS TAKING PART

Dear students,

We are writing to you to present the eLearn Center's eKnowledge project in which you will be taking part during the first semester of the 2010-2011 academic year.

This project aims to design and develop an online forum tool to replace the one currently available on the UOC's Virtual Campus. In addition to eLearn Center staff, the project will also involve a group of lecturers and consultants on different courses, as well as personnel from the UOC's Educational Technology Area. After more than two years of work, the time has arrived to try out the tool in class. eKnowledge is a beta-phase application that needs to go through a test period before being rolled out across classes on the UOC's Virtual Campus. Your class is one of those where the corresponding lecturers and consultants have agreed to use this new forum tool.

Your collaboration and involvement is vital as eKnowledge end users. Your opinion and experience of using the tool will be key, both from an overall perspective and specifically with regard to the support it offers you to carry out the set learning activities. With this in mind, we will be getting in touch with you again at the end of the semester to ask you to complete a questionnaire on these issues.

Although you might have to make an effort to use a new tool at the start, we believe that not only is

it an intuitive tool, but it also includes a series of functionalities that offer a significant improvement over the forum currently offered on the Campus. Below you will find a summary of some of the key benefits of eKnowledge.

In order to make this task as straightforward as possible, we have prepared an eKnowledge user manual. We have also set up a blog to express and find solutions to any kind of problems or technical issues you might have over the course of the semester (<http://pretoria.uoc.es/wpmu/forums/>). You can access both resources directly from the help link at the top of the tool.

This innovative project, like others set up by the eLearn Center and other areas at the UOC, aims to continuously improve the university's educational model and help it evolve, in terms of the technologies used and its processes and services.

We hope you find this a useful experience and we thank you sincerely in advance for your collaboration.

Have a good semester,

The eLearn Center innovation team

Presentation of the forum tool: eKnowledge

eKnowledge is an online forum tool that offers students and teachers an asynchronous communication space where they can interact informally, share information, debate or reflect and create knowledge together.

Thanks to eKnowledge you will find it easier to:

➤ Manage information and make the most of online and offline working time..

The tool has the option of downloading all the messages in a subject as a **PDF** file, archive the subjects of interest to a user as **addresses of interest** and save **drafts** for messages or subjects pending publication. The different options for viewing and searching for contributions will help you configure your space and manage information more effectively. Thanks to eKnowledge you will be able to make the most of your work time, even without internet access or a computer.

➤ Communicate and share information and knowledge.

All users can create subjects in the different forums created by the class consultant or send messages in reply to a given subject. Besides the basic functionalities, eKnowledge also incorporates a **quotation** option to reply to a message from another user by including the original text, and a **cross-reference** option to include links to other forums and subjects in order to make communication more flexible and encourage a crosscutting vision of contents. By including **visual and multimedia items**, **links** to other online resources and **attached files** through an intuitive, user-friendly interface, eKnowledge fits with the conception of communication as a flexible process that uses a wide range of languages.

➤ Monitor activity in class forums.

eKnowledge was designed to pay special attention to time management. It includes functionalities such as **RSS subscription** to all class forums, a specific forum, to a subject, and even to the contributions of a specific user, be they a student or consultant. The different **viewing options** for the forums and subjects, as well as **search** options (simple, advanced and by word) also aim to make it as straightforward as possible to monitor activity on eKnowledge.

➤ Take part in processes for structuring arguments, joint reflection and collaborative learning.

Some eKnowledge functionalities were expressly designed to encourage processes for structuring arguments, joint reflection and collaborative learning among students. The **categories**, **tags** and **cross-references** offer a deeper look into the processes of reflection and joint construction of knowledge around the subjects in question.



APPENDIX 2 : MODELS OF ASSESSMENT QUESTIONNAIRES

Assessment questionnaire on the eKnowledge tool for students

Please answer the following questions to help us get an overall assessment of the eKnowledge tool.

Bear in mind that you need to answer all the questions marked with a * before you can send the questionnaire. Thank you very much.

1. Did you find it easy to familiarise yourself with how to use this tool? *
Very hard Hard Sufficiently easy Fairly easy Very easy
2. Does the tool help improve communication with colleagues and the consultant? *
Very hard Hard Sufficiently easy Fairly easy Very easy
 - 2.1 How do you think this aspect could be improved?
3. Do you think the tool's functionalities make it easier to follow discussions and debates? *
Very hard Hard Sufficiently easy Fairly easy Very easy
 - 3.1 How do you think this aspect could be improved?
4. Did the user manual offer you enough useful guidelines and suggestions? *
Very hard Hard Sufficiently easy Fairly easy Very easy

4.1 How do you think this aspect could be improved?

5. Do you think the technical support provided through the problem blog is a suitable system for solving technical problems with the tool?

5.1 How do you think this aspect could be improved?

6. Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one *. Mark any functionalities you are not familiar with as "Not used".
Not used Useless Not very useful Fairly useful Very useful

- Syndication (RSS)
- Download messages as PDF files
- Manage drafts
- Manage attached files
- Starred messages
- Reedit own contributions
- Tags
- Categories
- Cross-references
- Quotations
- Search options
- Options for viewing messages
- Help

7. Which eKnowledge functionalities did you find less useful or thought could be improved? *

8. In general, do you think the eKnowledge tool meets your needs? *
Very hard Hard Sufficiently easy Fairly easy Very easy

8.1 Why? *

9. Would you like to use the eKnowledge tool in other subjects? *
Very hard Hard Sufficiently easy Fairly easy Very easy

10. Do you want to add any other comments?

Assessment questionnaire on the eKnowledge tool for consultants

Please answer the following questions to help us get an overall assessment of the eKnowledge tool.

Bear in mind that you need to answer all the questions marked with a * before you can move on and send the questionnaire. Thank you very much.

0. If you want you can add your name:

1. Did you find it easy to familiarise yourself with how to use this tool? *
Very hard Hard Sufficiently easy Fairly easy Very easy

2. Did the tool help you achieve the objectives you set for the activity? *
Very hard Hard Sufficiently easy Fairly easy Very easy

2.1 Why?

3. Do you think the tool makes it easier to manage information and the interactions created? *
Very hard Hard Sufficiently easy Fairly easy Very easy

3.1 How do you think this aspect could be improved?

4. Does the tool help improve communication and shared feedback between students and consultants? *
Very hard Hard Sufficiently easy Fairly easy Very easy

4.1 How do you think this aspect could be improved?

5. Do you think the tool promotes the development of processes of reflection and joint construction of knowledge? *
Very hard Hard Sufficiently easy Fairly easy Very easy

5.1 How do you think this aspect could be improved?

6. Please complete the following chart by marking the functionalities you did or didn't use, along with the degree of usefulness of each one *.
Not used Useless Not very useful Fairly useful Very useful

- Syndication (RSS)
- Downloading messages as PDF files
- Manage drafts
- Manage attached files
- Starred messages
- Reedit own contributions
- Tags
- Categories
- Cross-references
- Quotation
- Search options
- Options for viewing messages
- Help

7. Which eKnowledge functionalities did you find less useful or thought could be improved? *

8. Did the documentation provided and the previous advice on the tool offer enough useful guidelines and suggestions for using it? *
Very hard Hard Sufficiently easy Fairly easy Very easy



8.1 How do you think this aspect could be improved?

9. Is there any other functionality you would like to find out about in greater depth to use in class? Which? *

10. In general, do you think eKnowledge meets your teaching needs? *
Very hard Hard Sufficiently easy Fairly easy Very easy

10.1 Why? *

11. Would you be interested in using the eKnowledge tool in another semester? *
Yes No Don't know

12. Would you like to add any other comments?



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