



Beyond Technology in Computer Assisted Language Learning: Learners' Experiences

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Abstract

The present study is based on a previous pilot study (Gutiérrez-Colon, 2008) (Note). The present study aimed at widening the scope of the pilot study increasing the sample size in number of participants, degree courses and number of universities. This time, four Spanish universities were involved, and the number of participants was 197, who were registered in English Philology (N=72), Business Studies (N=36) and Mechanical Engineering (N=89). The data was organised into four main areas which describe the essential methodological teaching practices that are present and should not be avoided in blended virtual courses according to the interviewed students: a) Management of the subject, b) Students' perception of the subject, c) Design of the course and the documents, d) Feedback from the teacher. The results obtained indicate that teachers should modify their teaching habits and methodology when teaching online.

Keywords: CALL, Online courses, Teaching methodology, Pedagogical changes

1. Introduction

The origins of the present study are a set of impressions gathered during many years of online teaching, reading published literature on CALL and attending conference presentations. Even though the feasibility of online language teaching has now been by far demonstrated, there has been a lack of studies on the methodology of CALL from the students' point of view. That is, there has been a lack of studies that focus on pedagogical rather than structural issues (Hansson & Wennö, 2005: 280).

2. Technocentrism vs. pedagogy

According to Cabero (2006), there are two main historical errors which have caused online learning not to offer the good results that were expected in this environment. The first error is what has been called technocentrism, which is the belief that technology is more important than pedagogy. The second one is lack of experimentation. According to the author, we have not experienced enough all the possibilities that new technologies offer and we have just transformed the basic principles applied to face-to-face learning into online learning. This fact has many times led teachers to use the same methodology (with few adaptations) to two completely different teaching environments. This mismatch between the methodological approach and the specific learning environment has brought many different problems among teachers and students, which have sometimes even led to high numbers of student drop outs, frustrations, anxiety, fear and distress reflected in their work as well as in their feedback. Cushion (2006) gives us one clear example of how CALL is being studied and developed mainly as a subset of computing science, rather than from the point of view of a second language methodological approach. He argues that CALL can be reviewed as a subset of computer software engineering. According to his theory, CALL can profit from adapting some of the recent progress in software development theory.

Even though online environments for language teaching have existed for many years now, there are few studies conducted on the pedagogy of CALL centred in the role and feedback of the student. White (2006) claimed that from the pedagogical point of view, the studies on distance language learning have centred basically around four key themes:

course development, course evaluation, teaching roles and learner support. From all these four main fields of research, White states that teaching roles in distance language learning have, until recently, received scant attention (2006: 252). At the same time she states that although learner support is “an explicit feature of quality distance language education” (2006: 253), the published literature in this theme is less evident.

Therefore it seems that online teachers are most of the times more involved in the understanding and developing of the learning environment than in the observation of the students’ reactions, feedback and their involvement, which should be one of the ultimate objectives of effective instructors.

In a very enlightening article, McAvinia (2006) distinguished between CALLers and *learning technologists*. For this researcher, lecturers, teachers, developers and researchers working within CALL may be called CALLers. *Learning technologists* are a group within higher education systems who support the implementation of a virtual learning environment (the word ‘support’ in this context refers to technical issues, training, pedagogical approaches, etc.) For McAvinia, there is a growing dialogue between researchers and practitioners in CALL and language teaching, and a potential strength is that they can present a stronger overall argument in favour of pedagogically-driven approaches to the use of technology for learning and teaching in higher education systems.

For all this, the following research questions were addressed in this study:

- Can learning increase depending on the methodological teaching practices?
- What attributes of online methodological teaching practices can meet student learning needs?

3. Research design

3.1 Previous research

The present study is based on a previous pilot study (Gutiérrez-Colon, 2008) which presented and analysed the answers of 63 students to a general opinion questionnaire about methodological teaching practices in blended virtual courses, that is to say, in courses which included face-to-face classes as well as virtual platforms such as Moodle or the virtual campus. The pilot study focused on two groups of students from the same Spanish university (*Universitat Rovira i Virgili (URV), Tarragona*) and from two different degree courses, namely English Philology (N=32) and Mechanical Engineering (N=31). Both groups were registered in an English language blended virtual course and constituted two very different kinds of students from two distinct knowledge fields, which had an influence on their perception of virtual environments.

3.2 Research participants

The present study aimed at widening the scope of the pilot study and increased the sample size in number of participants, degree courses and number of universities. This time, four Spanish universities were involved, namely *Universitat Rovira i Virgili (Tarragona) (URV)*, *Universitat Autònoma de Barcelona (UAB)*, *Universitat de Barcelona (UB)* and *Universitat Politècnica de Catalunya (UPC)* and the number of participants was 197, who were registered in English Philology (N=72), Business Studies (N=36) and Mechanical Engineering (N=89). They were all registered in blended virtual courses, as in the pilot study, where the use of e-mail, virtual campus and Moodle is part of the teaching of the course.

3.3 Research method

As stated above, the research instrument employed in the study was a questionnaire (see Appendix 1 – Table 1), which included a set of background questions (1) and nine more questions (2), both open and guided, directly related to the evaluation of virtual teaching and aimed at obtaining individual opinion answers and comments from students on each topic. The questions tackled essential issues of the teaching of virtual courses, such as whether the teacher encourages students’ participation in the virtual class, whether students receive feedback and how long it takes/it should take to receive it, whether the design of the course and the documents is eye-catching and attractive or not and why, whether the virtual course is perceived as too cold or distant by the student and why, whether virtual teaching helps the students’ learning processes or what could be added to a virtual course to encourage and improve the students’ learning. The questionnaire also included a question (2.6) with a set of statements the students had to choose related to their learning process, teacher-student communication, student-student communication and the students’ feelings when using virtual platforms. Finally, a question on further comments was also included so as to obtain further information not explicitly tackled in the previous questions.

Students answered the questionnaire either electronically or in class and their answers were transcribed separately according to the degree course they were studying. However, they were analysed together and no specific comparisons were made among them, for the purpose of the present study was to obtain a first general approximation to teaching practices in blended virtual courses on the basis of the opinions of students from science and arts knowledge fields. The data was organised into four main areas which describe the essential methodological teaching practices that are present and should/should not be avoided in blended virtual courses according to the interviewed students:

- Management of the subject.
- Students' perception of the subject.
- Design of the course and the documents.
- Feedback from the teacher.

These four areas and the results obtained will be described and analysed in the next section together with the results on the statements from question 2.6 in the questionnaire, which, as stated above, illustrate the participants' general opinion about how virtual courses affect their learning process, their relationship with other students and teachers and their feelings towards virtual environments.

4. Results and discussions

4.1 Management of the subject

The area "Management of the subject" refers to the way the teacher organises the virtual course and how she/he manages to encourage and motivate the students to participate in the virtual environment. Table 2 below illustrates the students' answers to whether they think the teacher promotes the use of the virtual class (i.e. question 2.1) according to university and degree course study. The percentages of the students who answered 'Yes' to the question "Does the teacher encourage students' participation in the virtual class?" are pretty high in all universities, being Business Studies students from UPC the ones who have the lower (i.e. 72.22%) percentage and Mechanical Engineering students from URV the ones who display the maximum percentage (i.e. 98.27%). The average students' opinion displays a remarkably high (i.e. 85.78%) percentage of "Yes", indicating that students generally think the teacher encourages participation in the virtual class.

Table 2: Question 2.1

Participants in the study highlighted several positive aspects of the management of the virtual subject as well as reasons why they thought they were encouraged to get involved in this virtual environment. This included the fact that the teacher regularly updated information in the virtual campus or Moodle, sent emails and notifications and posted the notes and readings for the course, homework exercises, extra exercises, online activities, mock exams, practical information and the course programme and keys to the exercises. Students also highlighted the importance of activating discussion forums in order to get motivated and the advantage that virtual environments offered for students to catch up with the course if they couldn't attend class regularly together with the fact that students could work on the subject at any convenient time or day. Yet students also acknowledged that the fact that participation in the virtual class was obligatory and part of the assessment was optional but given an extra bonus to the final grade of the course was a clear motivating element.

At the same time, although the majority of students think that teachers encourage their participation in the virtual class, negative teaching practices regarding the management of the virtual subject are also mentioned in the questionnaire. Some teachers are not aware of the amount of workload and the amount of time that virtual materials for students imply on top of the face-to-face lectures and that creates unbalanced courses where the virtual part exceeds the regular course work and encourages lack of motivation. Some other teachers rely too much on the virtual component, where the student can find all course notes, exercises, and theoretical explanations so that face-to-face classes may become irrelevant. In fact, some students think that this should be the case and that blended virtual courses should become true virtual courses and would like to have all the course materials uploaded in the virtual platform. Some participants would also like to have more forums and chats and complain that they can only find practical information about the subject in the virtual platform but nothing that improves the student's learning process or the understanding of the topics covered in class. Some students even claim that the virtual subject looks exactly the same as the face-to-face class but with electronic documents and that there is no active learning that makes them improve their weak points or revise key concepts in the subject. In courses where students have established deadlines to hand in assignments electronically through the virtual class, they complain that these deadlines are too strict, in that if you cannot meet them, the system does not allow you to send your assignment any more.

A further issue that arose in the questionnaire and which is related to the area of management of the subject and also to feedback from the teacher (see section 4.4) is the fact that teachers themselves are not motivated to use virtual platforms and that they include a virtual component in their subjects because they have to. Some teachers just never use the virtual environment or forget to update information or post exercises or their keys and no clear guidance on the optional or compulsory use of the virtual class is given.

4.2 Students' perception of the subject

The area called "students' perception of the virtual subject" deals with issues such as whether students feel that the virtual subject is too cold or distant and whether they think that virtual learning helps them in their learning process. As for question 2.5 and as can be seen in Table 3, the majority of students in all degree courses and universities do not have

the impression that the subject is too cold, with a maximum “No” value of 84.00% in the case of English Philology students in UAB and with the exception of the students in the pilot study who mainly think that the subject is indeed distant, although they do not show extreme values. However, the general percentages also show that a bit more than two thirds of the students interviewed thought the virtual subject was not too cold.

Table 3: Question 2.5

A variety of reasons are given in the questionnaire which justify these results. The main reason why students consider the subject to be too cold is the lack of contact with the teacher. In the virtual class, communication exists only through the Internet and students cannot see the teacher when trying to resolve doubts or ask questions. This makes it difficult to solve doubts when they arise and some of them are too complex to explain in writing or in an email, so face-to-face tutorials are sometimes preferred. Students do not always get enough feedback, there is no effective monitoring on the part of the teacher or it takes too long to get a response. In short, the course is not really interactive and one often finds exercises or texts in the virtual campus but no explanations, which makes students feel literally lost in front of all the course materials. Some students point out that information is not transmitted in the same way as in class and that virtual environments are only useful for teachers, who save time in class, since half of the information is in the virtual campus and hence taken for granted.

Nevertheless, questionnaires also display many reasons why the majority of students do not consider virtual courses to be too cold. One of the most frequent reasons given by students is the fact that the virtual class is only a complement to the face-to-face class, where all the explanations and doubts are dealt with and that the two types of lectures are related to and complement each other. Some students even point out that without face-to-face classes they would not understand the content of the subject and that you can always clarify doubts during the teacher’s office hours. However, students also emphasise that in the virtual class, feedback is fast, clear, concise and hence useful. It sometimes includes personal motivating comments, which makes students think they are not alone in their learning process. Virtual classes involve a lot of guidance and some of them even include real time online help. Some students say virtual courses are not cold, as they make communication between teachers and students easier and more fluent and some teachers get really involved in all the activities. Teachers become more accessible and studying through the Internet and participating in online tasks become easier and more attractive and comfortable. Finally, some other students indicate that it is not important whether a virtual course is cold or not, the essential necessary quality for a virtual course is being effective and providing quick feedback.

Regarding question 2.7 in the questionnaire, whether students think that virtual teaching helps them in their learning process, an overwhelmingly majority in all universities and degree courses respond positively, being the maximum value 96.00% in English Philology (UAB) and reaching a general percentage of 84.77%. Some other students believe that virtual teaching does not help them in their learning process, reaching a general percentage value of 13.70%. Results are displayed in Table 4.

Table 4: Question 2.7

One of the factors that students consider determinant in helping them in their learning process is that virtual teaching implies more complementary exercises, more practice, more resources, more information, more links, more course notes, more summaries, more content and more accessibility, which helps students revise, clarify and widen the main points covered in the face-to-face class and hence consolidate their knowledge. If feedback is fast then communication between teachers and students improves and you can organise your time better, as you can work from home at your own rhythm and pace and with a free access to all the course information. The virtual class helps you be more constant and autonomous, since part of the student’s learning lies on their own work. In short, students emphasise that virtual learning is a new, helpful and more dynamic tool to enhance their learning process.

Yet the small percentage of students who think that virtual teaching does not help them in their learning process believe that it is impersonal, it requires too much time on the part of the student and it does not motivate students. Sometimes information and exercises are not organised or structured and keys to the exercises are not assisted or complete enough. A lot of doubts and questions arise and they are not always solved. Students point out that they need the teacher’s theoretical explanations and that it is in a face-to-face class where they really learn, not through virtual texts. Some other students also believe that virtual teaching saves time to teachers, who do not have to spend their time correcting exercises in a virtual class where all the activities have their corresponding keys. Many students consider that virtual learning does not help if it is not part of the compulsory assessment system and that non-virtual workload is enough. They feel overwhelmed with the huge amount of new extra material and do not have enough time to work on the subject or to prepare the final exam. Students interviewed also indicate that technical problems with the website or Internet connection demotivate them in their use of the virtual class.

As part of the “students’ perception of the subject” area, students were asked what they thought should be included in the virtual subject to improve their learning (i.e. question 2.8). A great number of them think that teachers should get

more involved in the virtual class. E-mails should be answered, feedback should be reasonably fast, teachers should know how to use virtual platforms and improve their IT skills and should show interest in the students' knowledge and provide more guidance and instructions. Students also point out the need for an instant messaging system with an established timetable to solve doubts instantaneously, forums, more theoretical explanations, more extra material, exams from previous years, resolved exercises, chats, more links and online exercises with instant feedback. Some students suggest including more virtual bibliography, press articles, anonymous suggestion mailboxes, personal calendars, research exercises, self-assessment activities and optional exercises which are not assessed. Keys should not be posted at the same time as the exercises but some time later and information should be regularly updated. The format of virtual subjects should be renewed and simplified and students should collaborate in the construction of online materials. Technical problems should be kept to a minimum and more importantly, students emphasise that face-to-face classes and direct contact with teachers should be maintained in order to ensure the success of virtual classes.

4.3 Design of the documents

This section analyses the students' opinions on the design of the course materials and documents and whether these are attractive and clear to read for students or difficult and uncomfortable to read. Their opinions include comments on font type and size, use of colours, document or website layout, links, exercise instructions, document features or images, among others. As Table 5 below indicates, students from all universities and degree courses mainly think the design of the documents is eye-catching and comfortable to read, although the percentages only reach 80.00% or over on two occasions. English Philology (UB) students do not display such a contrast but similar percentages and the general percentage for "eye-catching" design reaches 78.17%, showing the tendency to consider the design of the course materials adequate and attractive.

Table 5: Question 2.3

Students who think the design of the documents is eye-catching and comfortable to handle emphasise aspects such as the use of simple, clear, large font types and neutral, unflashy or institutional colours. As for the layout of the document, students highlight the importance of a structured, clear, organised, attractive and understandable layout with adequate spacing and the use of visible and useful links. The instructions of the exercises are clear, concise and understandable and images are relevant to the text, attractive and illustrative. At the same time, students point out the fact that documents should preferably be in word or pdf format, easy to download and that the website should be easy to use.

Yet some other students emphasise bad methodological practices in relation to the design of the documents and course materials. The font type is often too small, dull and difficult to read and interlineal spacing is also too small and uncomfortable to deal with. Colours are sometimes too dull or too flashy, making the text almost unintelligible. The layout of the documents is at times confusing, difficult to grasp at first sight and boring, demotivating or old-fashioned and some links are outdated and difficult to find in the document or they might lead to nowhere. Exercise instructions are not clear enough, too long and hence difficult to understand and sometimes there are too many irrelevant images, which makes the document too slow.

4.4 Feedback from the teacher

Another important area of research when analysing methodological practices in virtual teaching platforms is "feedback from the teacher". It is one of the key aspects for virtual courses to succeed and students take for granted that it is guaranteed in a virtual course. Question 2.2 tackled the issue of whether students receive feedback from the exercises/activities/questions that they send or ask virtually. Table 6 shows that students generally receive feedback, with a general percentage value of 72.08%, except for students in English Philology (UB), 86.66% of whom claim that they do not receive any feedback. Students from English Philology (UAB) display very similar results (i.e. around 50.00%) on whether they receive or do not receive feedback from the teacher and hence they are not indicative of any tendency. What is clear is that of those who do not receive feedback, a 100% in almost all universities and degree courses would like to receive it.

Table 6: Question 2.2

Question 2.4a (Table 7) asked students whether they believed their teacher took too long to answer their questions or exercises virtually. Although the general percentages show that the majority of them do not think that the teacher takes too long (i.e. 56.34%), some of them believe they do (i.e. 21.82%) and more surprisingly, the same percentage of them (i.e. 21.82%) acknowledge that they just never send questions or exercises, which might indicate lack of interest and motivation on the part of students. More than half of English Philology (UB) students, who generally claimed in Question 2.2 that they did not receive any feedback, state that they never send any questions or exercises and 33.33% of them think that the teacher indeed takes too long to answer.

Table 7: Question 2.4a

Students were also asked about the maximum response time to send feedback. They were given four options, namely 24 hours, 48 hours, a week or “doesn’t matter”. Table 8 shows that students generally believe a response time of 24 to 48 hours should be the adequate option, with a tendency for more than half of the students interviewed (i.e. 53.29%) to prefer the 24 hour-option, except again for English Philology (UB) students who mainly think 48 hours is the expected response time. The “one week” option is clearly dispreferred as well as the “doesn’t matter” one, clearly indicating that response time is indeed and logically important in virtual environments.

Table 8: Question 2.4b

Some of the qualitative comments students made in the questionnaire specifically raised the feedback question and were centred on its related negative methodological practices. Some students emphasised the fact that teachers take too long to respond to their messages and that some of them do not even take the time to answer or just send keys to the exercises without further explanations. This creates a lack of effective monitoring of their learning progress and hence there is not enough interaction between teacher and students, whose learning needs are not at all met and whose doubts may never be solved. A very illustrative point about this topic has been literally transcribed to exemplify the problem: *“It’s been a week since I’ve been waiting for an answer to an e-mail with exam doubts. The exam is tomorrow”*.

4.5 Participants’ general opinion in percentages

The final issue in the results section focuses on the statements from question 2.6 in the questionnaire, which illustrate the participants’ general opinion about whether virtual courses affect their learning process, their relationship with other students and teachers and their feelings towards virtual environments. Question 2.6 included ten statements about virtual courses and students were asked to tick as many of them as they thought reflected their opinion. As can be seen in Table 9, general percentages were calculated on this occasion, without considering the different universities or degree courses. More than half of the students (i.e. 61.42%) thought that virtual courses help their learning process, which was already shown in question 2.7 (see section 3.2) and nearly half of them (i.e. 43.15%) believe that virtual courses improve the teacher-student communication and acknowledge that they have felt stressed during a virtual course. Percentages are much lower in the other statements, only reaching 20.81% in “virtual courses improve the relationship among students”. The remaining statements, which are all negative, reached no more than 18.27%, which indicates that the majority of students do not think that the learning process is hampered or that the teacher-student and/or student-student communication worsens. At the same time and although 43.15% of students admitted having felt stressed, only 16.75% have felt frustration and only 15.23% have felt alone during a virtual course. Figure 1 illustrates these results graphically.

Table 9: Question 2.6

Figure 1: Graph illustrating the results from question 2.6

Having presented the results of the questionnaire, next sections are devoted to the general conclusions and further research.

5. Conclusions

This study created opportunities for students to give their opinion on what they thought could improve the online teaching methods, and therefore, foster the learning process. At the beginning of this paper we proposed two research questions (see section 2). The first question tried to find a connection between the rate of learning and the methodology of the teaching practice. According to this study, the more the teacher knows how to use the virtual environment from a methodological point of view, the better the students feel in the classroom and therefore the better the teacher facilitates their learning process. The second question tried to find the specific attributes that, according to the users of the virtual environment, could help their learning process. For this second question, the research findings show the following:

In the virtual campus:

- The information should be regularly updated.
- The teacher should play an active role when moderating the forums in order to keep an active discussion going on.
- In order to increase an active participation to the class’ forum, the teacher should give an extra bonus to the final grade to the students who regularly send their contributions to the classroom.
- The teacher should clearly distinguish a virtual course from a blended course when calculating the amount of workload sent to the virtual class.
- The materials created for a virtual environment should have different characteristics from those created for a face-to-face class.
- All students’ messages should be answered within a maximum period of 24 to 48 hours.

- *Warm up* activities are very useful and many times necessary. At the beginning of each course or even each lesson, the teacher should send a warm up activity. This is not only a starter for the activity, but also a way of 'connecting' with the students, a more relaxed way to be in contact with them and thus the students do not have the feeling of distance.
- Teachers should allow more informal communication among the students. This could be done by:
 - . allowing students to send informal messages to the forum
 - . opening a special space in the classroom for this type of communication
 - . sending a more relaxing message, with general information, after the deadline of the activities is over,
 - . prompting students to answer to a funny comment.
- The design of the classroom should be eye-catching, and the materials sent to the classroom should be perfectly organised, so their icons can be quickly found (and clicked) on the screen.
- There should be more complementary exercises, resources and information ready to be used from the beginning of the semester than in a face-to-face course. With these, we foster students' autonomy.
- Teachers should be used to working in the virtual environment they are using before starting the course.
- Keys to the exercises should be posted some time after the exercises. In this way, students can check their progress.
- The documents created should be well structured, with an attractive layout and with a font size and colour which are comfortable to read. The links should be really useful (otherwise it is a waste of time) and updated.
- The documents sent to our classroom should be easy to download. Usually a Word or pdf format is the best for this purpose.
- The instructions of the exercises should be short and clear. They should never be longer than a screen, so the student can scan and then read them (scrolling down the screen is always an uncomfortable action for a rather short activity). In the case of longer instructions, they should be divided into different sections.

6. Further research

This study shows the different aspects that a virtual teacher should take into account when creating and leading a virtual course. As we have stated at the beginning of this paper, there is lack of research conducted on the different methodological aspects to be taken into account when teaching a virtual course.

One of the innovative aspects of this study lies in the fact that it is based on the students' experiences and opinions. They are the real subjects and users of the virtual environment. Thus, we envisage the need to carry out further studies on a wider range of online practices but always listening to the students' voices. It is hoped that such a research study will help teachers to establish a clear understanding of the good practices to be carried out in a virtual course as well as identify inappropriate uses and designs of the learning environment.

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Notes

Note 1. Gutierrez-Colon, M. (2008). Frustration in virtual learning environments. In *Handbook of research on e-learning methodologies for language acquisition*, (Marriott, R. & Torres, P. Eds). Idea Group Publishing.

Appendix 1

Table 1. Questionnaire

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| <p>1. Background information</p> <p>2. Evaluation of virtual teaching</p> <p>2.1. Do you think that the teacher promotes student participation in the virtual class?</p> <p>2.2 Do you receive any feedback from the exercises/activities that you hand in virtually?</p> <p>2.3 The design of the course or the exercises:</p> <ul style="list-style-type: none"> - is attractive for students? - is difficult/uncomfortable to read? <p>2.4 a. Do you think that the teacher takes a long time to send you an answer?</p> <p style="padding-left: 20px;">b. What is the maximum period of time that the teacher should take to send the answer/feedback?</p> <p>2.5 Do you feel that the virtual course in which you are enrolled is "too cold" or "too distant" for the student? Why?</p> <p>2.6 Do you think that virtual courses</p> <ul style="list-style-type: none"> - help the learning process? - hamper the learning process because the amount of content increases? - hamper the learning process because the number of exercises increases? - improve the teacher-student communication. - make the teacher-student communication worse. - improve the relationship among students. - make the relationship among students worse. <p>During the course</p> <ul style="list-style-type: none"> - have you felt frustration? - have you felt stress? - have you felt alone because nobody helped you with your doubts? <p>2.7 In general, do you think that virtual learning helps you in your learning process? Why?</p> <p>2.8 In order to facilitate the students' learning process, is there anything that you think should be included in the virtual subject?</p> <p>2.9 Would you like to add anything else?</p> <p>(From Gutiérrez-Colon, 2008)</p> |
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Table 2. Question 2.1

Does the teacher encourage students' participation in the virtual class?			
Degree courses	Yes	No	N/R
Business Studies (UPC)	72.22% (26/36)	27.77% (10/36)	0
English Philology (UB)	86.66% (13/15)	13.33% (2/15)	0
English Philology (UAB)	88.00% (22/25)	8.00% (2/25)	4.00% (1/25)
Mechanical Engineering (URV)	98.27% (57/58)	1.72% (1/58)	0
English Philology + Mechanical Engineering (Pilot Study) (URV)	80.95% (51/63)	12.69% (8/63)	6.34% (4/63)
General percentages	85.78% (169/197)	11.67% (23/197)	2.53% (5/197)

Table 3. Question 2.5

Do you feel that the virtual course in which you are enrolled is "too cold" or "too distant" for the student?			
Degree courses	Yes	No	N/R
Business Studies (UPC)	8.33% (3/36)	80.55% (29/36)	11.11% (4/36)
English Philology (UB)	33.33% (5/15)	60.00% (9/15)	6.66% (1/15)
English Philology (UAB)	16.00% (4/25)	84.00% (21/25)	0
Mechanical Engineering (URV)	24.13% (14/58)	65.51% (38/58)	10.34% (6/58)
English Philology + Mechanical Engineering (Pilot Study) (URV)	58.73% (37/63)	41.26% (26/63)	0
General percentages	31.97% (63/197)	62.43% (123/197)	5.58% (11/197)

Table 4. Question 2.7

In general, do you think that virtual teaching helps you in your learning process? Why?			
Degree courses	Yes	No	N/R
Business Studies (UPC)	94.44% (34/36)	2.77% (1/36)	2.77% (1/36)
English Philology (UB)	80.00% (12/15)	20.00% (3/15)	0
English Philology (UAB)	96.00% (24/25)	4.00% (1/25)	0
Mechanical Engineering (URV)	79.31% (46/58)	18.96% (11/58)	1.72% (1/58)
English Philology + Mechanical Engineering (Pilot Study) (URV)	80.95% (51/63)	17.46% (11/63)	1.58% (1/63)
General percentages	84.77% (167/197)	13.70% (27/197)	1.52% (3/197)

Table 5. Question 2.3

Do you think the design of the course materials and the documents is eye-catching for students or difficult/uncomfortable to read?			
Degree courses	Eye-catching Comfortable	Non-eye-catching Uncomfortable	N/R
Business Studies (UPC)	88.88% (32/36)	11.11% (4/36)	0
English Philology (UB)	53.33% (8/15)	46.66% (7/15)	0
English Philology (UAB)	80.00% (20/25)	16.00% (4/25)	4.00% (1/25)
Mechanical Engineering (URV)	75.86% (44/58)	24.13% (14/58)	0
English Philology + Mechanical Engineering (Pilot Study) (URV)	79.36% (50/63)	11.11% (7/63)	9.52% (6/63)
General percentages	78.17% (154/197)	18.27% (36/197)	3.55% (7/197)

Table 6. Question 2.2

Do you receive any feedback from the exercises/activities that you hand in virtually?			
Degree courses	Receive feedback	Don't receive feedback	Would like to receive feedback
Business Studies (UPC)	75.00% (27/36)	25.00% (9/36)	100% (9/9)
English Philology (UB)	13.33% (2/15)	86.66% (13/15)	100% (13/13)
English Philology (UAB)	52.00% (13/25)	48.00% (12/25)	91.66% (11/12)
Mechanical Engineering (URV)	96.55% (56/58)	3.44% (2/58)	100% (2/2)
English Philology + Mechanical Engineering (Pilot Study) (URV)	69.84% (44/63)	30.15% (19/63)	100% (19/19)
General percentages	72.08% (142/197)	27.91% (55/197)	98.18% (54/55)

Table 7. Question 2.4a

Do you think that the teacher takes a long time to send you an answer?			
Degree courses	Yes	No	Never send questions/exercises
Business Studies (UPC)	11.11% (4/36)	75.00% (27/36)	13.88% (5/36)
English Philology (UB)	33.33% (5/15)	13.33% (2/15)	53.33% (8/15)
English Philology (UAB)	16.00% (4/25)	72.00% (18/25)	12.00% (3/25)
Mechanical Engineering (URV)	24.13% (14/58)	53.44% (31/58)	22.41% (13/58)
English Philology + Mechanical Engineering (Pilot Study) (URV)	25.39% (16/63)	52.38% (33/63)	22.22% (14/63)
General percentages	21.82% (43/197)	56.34% (111/197)	21.82% (43/197)

Table 8. Question 2.4b

What is the maximum period of time that the teacher should take to send feedback?				
Degree courses	24h	48h	1 week	Doesn't matter
Business Studies (UPC)	55.55% (20/36)	38.88% (14/36)	0	5.55% (2/36)
English Philology (UB)	20.00% (3/15)	66.66% (10/15)	6.66% (1/15)	6.66% (1/15)
English Philology (UAB)	52.00% (13/25)	44.00% (11/25)	0	4.00% (1/25)
Mechanical Engineering (URV)	58.62% (34/58)	37.93% (22/58)	1.72% (1/58)	1.72% (1/58)
English Philology + Mechanical Engineering (Pilot Study) (URV)	55.55% (35/63)	36.50% (23/63)	4.76% (3/63)	3.17% (2/63)
General percentages	53.29% (105/197)	40.60% (80/197)	2.53% (5/197)	3.55% (7/197)

Table 9. Question 2.6

Do you think that virtual courses...	/197	%
1 - help the learning process?	121	61.42%
2 - hamper the learning process because the amount of content increases?	28	14.21%
3 - hamper the learning process because the number of exercises increases?	33	16.75%
4 - improve the teacher-student communication?	85	43.15%
5 - make the teacher-student communication worse?	36	18.27%
6 - improve the relationship among students?	41	20.81%
7 - make the relationship among students worse?	24	12.18%
During the course...	/197	%
8 - have you felt frustration?	33	16.75%
9 - have you felt stress?	85	43.15%
10 - have you felt alone because nobody helped you with your doubts?	30	15.23%

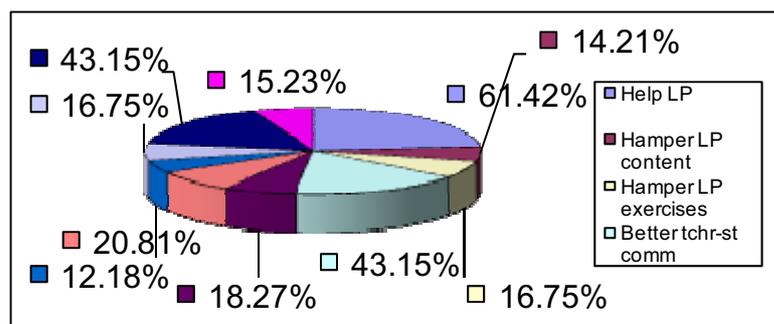


Figure 1. Graph illustrating the results from question 2.6