CONCLUSIONS

We conclude first that as a common feature in all core and elective subjects studied, the number of tutorials has increased during the period. However, this fact does not mean that its use is widespread.

Second, regarding the nature of tutorials, the majority of them were “non academic”. This indicates that the traditional tutorials are still preferred by our students. We must take into account that the characteristics of the analyzed subjects limit the use of virtual tutorials due to the difficulty of solving by computer some of the raised doubts (those about problems and numerical issues are the most common). We have shown that, despite their increased use, virtual tutorial remains an underused tool for our students to resolve doubts.

OBJECTIVES

The introduction of European Higher Education Area (EHEA) in the Spanish university model requires teachers to a deep thought about the methodologies to be used in the new European environment. In this work, our group aims to evaluate the academic use of the virtual tutorial tool from the Virtual Campus of the University of Alicante (UA) in the environment of a group of subjects with a high number of students and teaching load in the degree in Optometry.

METHODOLOGY

In this work, we have analyzed the virtual tutorials conducted in the period between 2005 and 2008 (4 academic years) of the following subjects of the degree in Optics and Optometry: In 1st year are the core subjects of Geometrical Optics and Physics. In 2nd year, Physical Optics and Ophthalmic Optics I, Ophthalmic Optics II, Digital Image Processing and Data Management in Optics are the optional subjects analyzed. Also, two subjects of the Master in Advanced Optometry and Vision Science were evaluated: Advanced Ophthalmic Optics and Imaging Techniques for Research and Diagnosis.

The analysis has consisted in discriminating virtual tutoring in two large groups that we call: academic and non-academic queries. In the group of academic tutorials are included those that are referred to questions about the theoretical and practical exposure in the classroom or directly related to the subject. The sample comprises a total of 1879 virtual tutorials conducted in the subjects mentioned above. The results are grouped according to the type of subjects. The first block, consists of the core subjects (Geometrical Optics, Physics, Physical Optics and Ophthalmic Optics I). Block II consists of the optional ones (Ophthalmic Optics II, Digital Image Processing and Data Management Optics) and the last block, block III includes those corresponding to the Master.

Block I

In this block a total of 1343 tutorials have been analyzed. The results show first a progressive increase in the use; however, taking into account that the analyzed sample represents the 2738, we get a ratio of about 0.5 tutorials per student and course, which shows that their use is not yet quite widespread.

The results per academic year are shown in the figure; the percentage of academic virtual tutorials are much lower than it might be expected, not exceeding in any case 32%.

Block II

In the analyzed optional subjects, the number of students is significantly lower and it decreases progressively as the students are completing their curriculum. Thus, the number of students enrolled in the period under analysis is 321 and the tutorials were 73. These values give a ratio tutorial/student of 4.1, thus being significantly lower than that analyzed in the previous section.

The figure shows a gradual increase the tutorials distribution by academic year and subject. We can see that the non-academic queries prevail on the academic tutorials.

Block III

This block is dedicated to the analysis of subjects of the Master: Advanced Ophthalmic Optics and Imaging Techniques for Research and Diagnosis (ITRD). The figure shows the evolution of the number of students and the percentage of academic virtual tutorials.

Only in one of the subjects of the Master, for their particular educational organization, has a virtual tutorials rate significantly higher: 76%.

CONCLUSIONS

We conclude first that as a common feature in all core and elective subjects studied, the number of tutorials has increased during the period. However, this fact does not mean that its use is widespread.

Second, regarding the nature of tutorials, the majority of them were “non academic”. This indicates that the traditional tutorials are still preferred by our students. We must take into account that the characteristics of the analyzed subjects limit the use of virtual tutorials due to the difficulty of solving by computer some of the raised doubts (those about problems and numerical issues are the most common). We have shown that, despite their increased use, virtual tutorial remains an underused tool for our students to resolve doubts.