

TELRI examples of implementation

TELRI believes that course activities appropriate to developing higher order cognitive skills, such as making meaning, generating ideas, taking decisions and reflecting, benefit from a learning environment where students can share their work openly and discuss their evaluative and creative approaches to novel areas of study.

There are several computer-based applications that can support exchange of documents and discussion. Nowadays, these are commonly referred to as virtual learning environments or VLEs. However, the simplicity of any technological tool will dictate the feasibility and cost-effectiveness of its implementation for the academic lecturer or course developer.

With this in mind, the TELRI Project has developed a simple web-publishing tool to support and enhance open process approaches to learning. Using the web, the students can:

- **View** the work of others
- **Submit** their own work
- **Comment** on the contributions.

Using the TELRI tool, staff have been able to implement the course design approaches far more quickly than would have been possible with large, complex packages should they be available. Nevertheless, such approaches might also be supported by conferencing software, such as WebBoard and FirstClass, or virtual learning environments, such as WebCT, Learning Space and COSE.

Technical details

The TELRI tool is based on simple CGI (common gateway interface) scripts running on a Unix web server. The interface used by the students for submitting their work is a simple form-based web page used to upload the student's files and comments to the web site.

TELRI in the Arts & Humanities

In the arts and humanities, research capabilities are developed through discussion and debate, activities which are essential to the testing out of ideas and the finding of meaning. C&IT tools that support and extend this 'tutorial' type of environment are valuable for enhancing teaching quality, particularly with increasing class sizes. Technologies for viewing, submitting and commenting on work provide:

- additional or alternative means for students to express themselves, often resulting in increased motivation and sense of ownership,
- scope to reflect more deeply than is often possible in timetabled groups, and
- a higher degree of focus for face-to-face classes.

The advantage to particular learning styles or international students is obvious. Furthermore, where such activities are the main focus of the course (especially where contributions during the process are linked to assessment), the approach can ensure active participation by all students.

Modern languages has constantly fought the perception that undergraduate study is little more than a vocational qualification in which a skill is taught and rehearsed, with limited emphasis upon critical thinking and understanding of issues relating to literature, philosophy, politics and culture.

Case study in French language learning

A French language course run by the Language Centre at Warwick for non-specialist language learners, students focuses on a single assignment involving research, presentation, discussion and analysis. Two groups of 30 students were asked to choose an image and conduct some background study, then upload the analysis of the chosen image to the web using the TELRI tool *Submission* function. This work formed the central theme to a presentation, a question and answer session and a written piece incorporating further research suggested by peers. All aspects were delivered in the target language.

The approach was successful in:

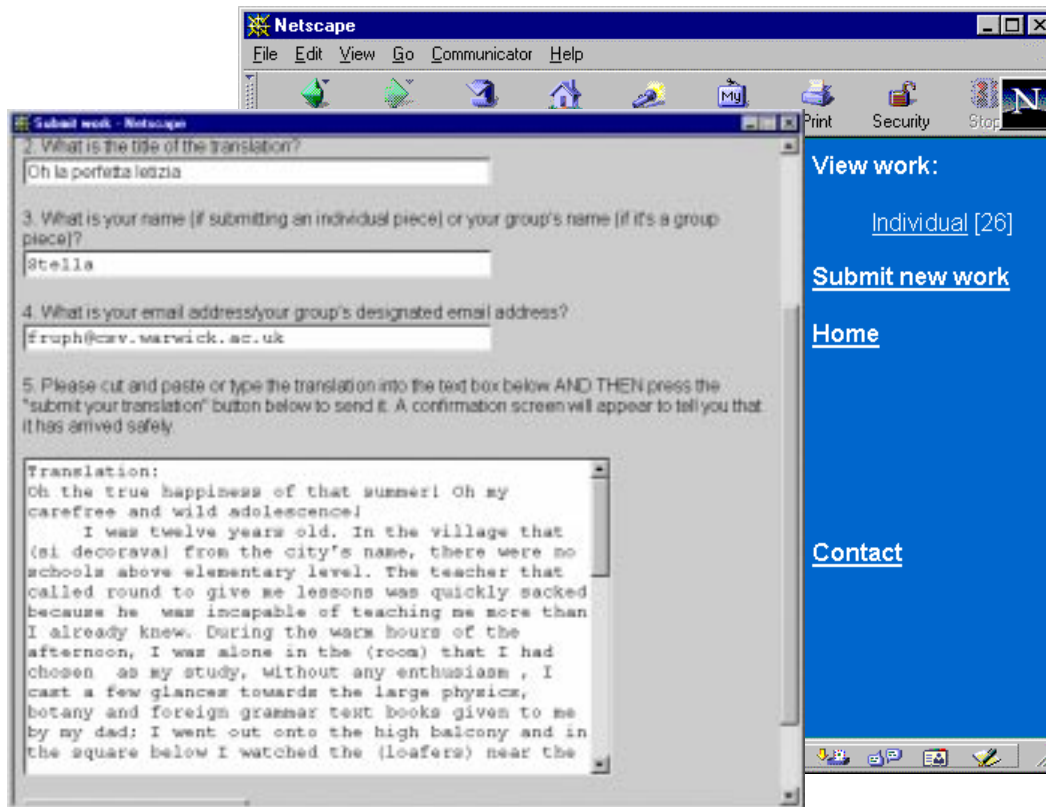
- **Increasing communication** in the target language (listening, speaking, reading and writing)
- Providing a **purpose and focus** for expressing and exchanging meaning
- Enabling **independent learning**.

In so doing, students build up linguistic knowledge and meaning through the creative use of language. Tutors noted that both the presentations and the written work were of a consistently high quality. The free choice of image formed the focal point of the activity and was linked to many of the motivational factors that were identified by the students: pursuing enjoyable background research; self-expression; advanced use of language; participation during the presentation and question and answer session; producing a Web-publishable document. It was clear that the transparent use of technology was a success factor.



Case study in Italian Studies

In a module for a third year cultural course in the Department of Italian Studies, we took the above approach a stage further to support students' critical analysis of a document translation into Italian. Both the *submission* and *comments* function of the TELRI web publishing tool was implemented to support online discussion of group submissions. Groups of 4-5 students work on the translation of a document into Italian.



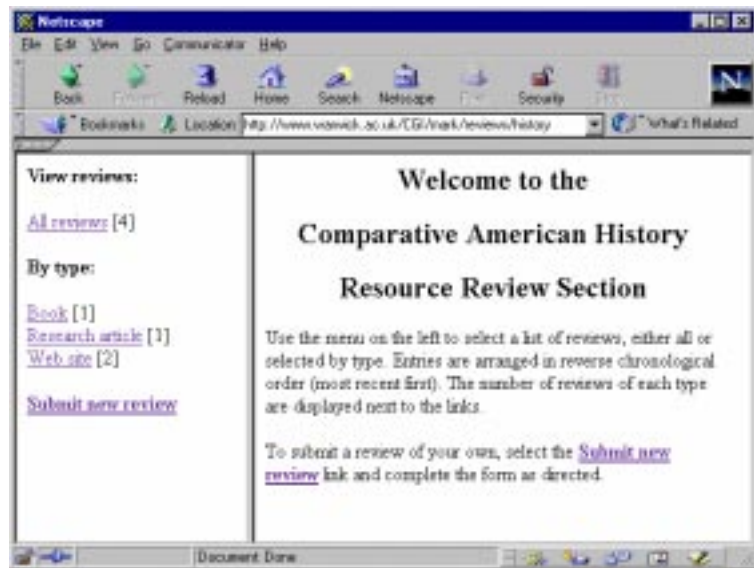
Students first submit their own version of the translation, discuss in small groups each other's approaches in terms of translation technique and the intended purpose of the text, and finally submit a group translation. Contributions to the discussion in terms of critical analysis, creative ideas and reasoning provide evidence of a student's development rather than the actual final translation produced.

The Web and CD-ROM provides students with more access to information than ever before. However, students still need to develop expertise in evaluating the relevance of what they encounter in their researching techniques.

Case study in Comparative History

A second year core module in the Department of History (Comparative American Studies) on North American Themes is based on lectures and seminars. The TELRI course design approach and web tool was implemented to facilitate students' reflection on their approaches to research and enhance the development of evaluation and critical analysis skills.

The students select a book, research article or web site relevant to the course objectives. Using the TELRI web tool, they can submit a critical review of the chosen primary text and can view the reviews of others in the class. This work is used as discussion material for the seminars. Since in the past, original source material was difficult to access, this approach provides a purpose for using web-based resources, such as electronic research journals and the TLTP History courseware. Furthermore, it builds up a resource base of critical analysis that is reusable in future courses.



The open process learning environment provides opportunities for originality and risk-taking, essential elements for the development of high level thinking. An online discussion board is currently being integrated into the approach. The tutor commented that the TELRI approach enhanced the student's motivation to read the texts, their willingness to take risks and exchange ideas and their level of reasoning and abstraction of arguments.

Case study in English

In the Department of English and Comparative Literary Studies, a module on North American Women Writers aims to encourage in students individual interpretations and responses within the frameworks provided by the prescribed critical reading.

The objectives of the course programme are to study a selection of twentieth-century North American Women Writers in depth, within the wider context of North American literary and cultural preoccupations, and with reference to recent critical debates.

The web site provides an overview of the seminar programme, an electronic discussion forum (shown), seminar materials (analyses, additional sources, bibliographies and lecture notes), learning support resources and guidance for the course activities.

The integration of C&IT allows far more in-depth reflection on the critical analysis process than the face-to-face seminar programme would otherwise have allowed. Students are given more freedom and opportunity to experiment with their own ideas and arguments. With emphasis on an open process environment where comments and tutor's remarks are recorded, students' abilities in structuring their argument and expressing reflective reasoning for their ideas are enhanced.



Case study in Theatre Studies



The same approach was used to support a course of 12 students in Theatre Studies using a tool (provided through Samba Technologies) that converts your machine to a web server so that the tutor has control over the areas where students can submit work.

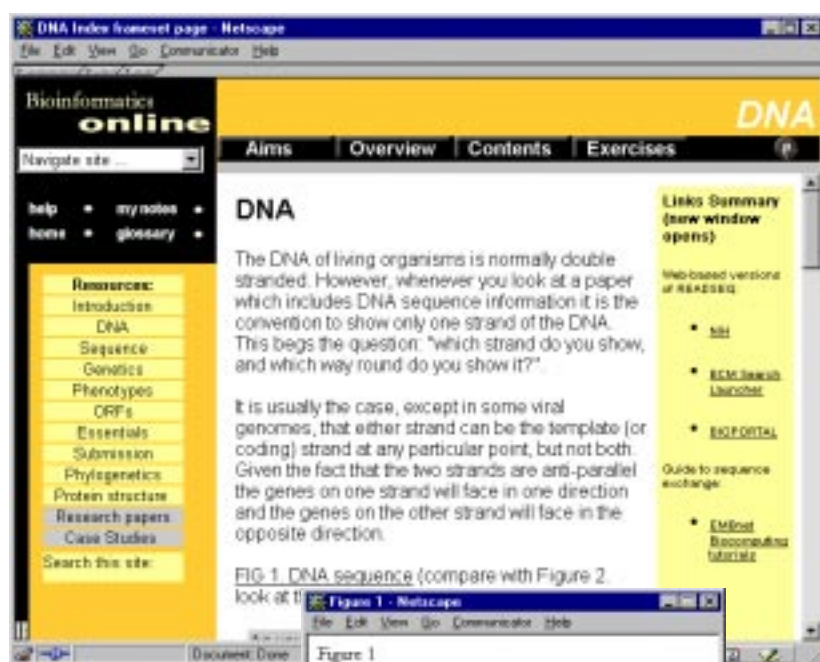
Students could not only submit their work to a Student Pages section but also make changes using an Edit your page function.

TELRI in the Sciences

Research capabilities are developed in the Sciences curricula through sophisticated problem solving and reasoning skills. Course activities focus on the students using and evaluating a wide range of information sources and method to interpret data and help solve problems. A common approach is through "practise with feedback" using increasingly open contexts or problems.

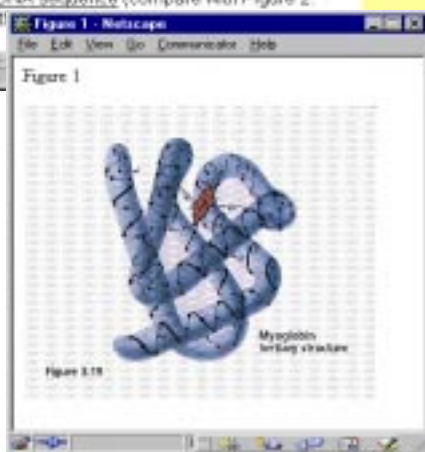
Case study in Biology

A new course on Bioinformatics is being developed collaboratively by TELRI working with the Departments of Biological Sciences at Warwick and Zoology at Oxford University. The course integrates a problem-solving approach with critical discussion of appropriate approaches and choice of techniques. The focus of the course is on solving a real research problem in the area of genomics. The need to develop knowledge and techniques is driven by the students' need to work through the problem.



The final assessed output is a research report, which emphasises the students' reasoning and justification in deciding the appropriate procedures and resources to utilise. Through this approach, students gain understanding of (i) how different programs require data to be inputted in different formats, and (ii) the importance of this in terms of obtaining a sensible answer to data analysis. These are prerequisites to performing accurate research.

Using the TELRI tool, student upload an overview of how they plan to tackle the report write-up that they will eventually submit at the end of the course.



A blank notice board input area on the web site allows students and tutors to add comments. The course also makes use of the review submission system used for History to submit web resources relevant to their argument.