INTERMEDIATE ONLINE ENGLISH:
AN ATTEMPT TO INCREASE LEARNER AUTONOMY

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Abstract
Recent developments in Computer Assisted Language Learning (CALL) have led language teachers to engage in designing online learning activities to suit their learners’ particular needs by integrating current Web 2.0 tools into their teaching practices. This article will focus on the InGenio Authoring Tool and Learning Environment designed by the CAMILLE Research Group at the Universitat Politècnica (UPV) in Valencia, Spain and will describe one of the courses for learners of English designed and published on the Internet using this tool. To conclude, the article will refer to user satisfaction by discussing some of the findings resulting from evaluation questionnaires.

1. Introduction
The CAMILLE[1] Research Group, based at the Universidad Politécnica de Valencia (UPV) in Spain, has been working on multimedia development for language learning purposes since the early 1990s. Towards the end of that decade the Group initiated Proyecto InGenio, an ambitious project which aimed at developing one of the first ever completely online authoring tools and content managers for the publication and delivery of fully online language learning courseware [2]. The authoring tool and delivery platform were completed by 2002 and subsequent online courses have been designed and published with this tool. Improvements since 2002 have included the development of an online tutoring system and a translation tool to adapt existing InGenio courses into any number of source languages[3].

Broadly speaking, InGenio is a web-delivered language-independent authoring tool capable of managing databases on a remote server which allows language specialists to design and publish materials to suit their students’ particular needs. The implementation of the materials is based on the template approach to software authoring (Gimeno, 2002), with predefined templates that integrate video, graphics, audio and text. The system includes a “content manager”, enabling subject specialists to create a database from which to share and
select materials by organising the multimedia components and materials (learning objects) according to a number of specifications (e.g. language, level, skill, target group, etc.), thus creating a pool of multimedia exercises and resources. The authoring tool automatically converts the contents into learner-ready materials in the form of an online course, delivered via the InGenio web-based Learning Environment. The system incorporates a student assessment utility that allows tutors to supervise student scores, written input and overall progress.

InGenio distinguishes the following four types of user:

- **Authors:** language specialists with permission to create new or modify existing learning materials;
- **Students:** registered users of the courses available via the Learning Environment;
- **Tutors:** instructors for registered learners;
- **Translators:** these have permission to adapt the materials into different languages, other than those introduced by the authors themselves.

![Image](image_url)

Figure 1. The InGenio authoring tool front page.

Figure 1 above illustrates the system’s front page where all the management items are located, i.e. user management, courseware management and the actual authoring tool. The
authoring tool comprises 15 exercise templates\textsuperscript{[6]}, plus two additional templates to create reference materials and (sound-enhanced) glossaries. Because the system requirements have been kept to a minimum, no additional applications or plug-ins are necessary, other than a standard web browser and the RealPlayer media player. Programming is carried out in HTML\textsuperscript{[7]}, which provides the tool with extreme versatility and flexibility. Finally, as the system is completely machine-independent, language specialists can work from any computer at hand (Gimeno 2005).

2. Intermediate Online English

\textit{Intermediate Online English} is a course designed by the author of this paper and was originally designed as a prototype to illustrate how the \textit{InGenio} authoring tool worked and to explore the possibilities for language specialists wishing to design their own online learning materials. It is currently being used as the basis for a course delivered at UPV called “\textit{Computer Assisted English}”\textsuperscript{[8]}. The online course is embedded in the \textit{InGenio} Learning Environment, to which registered students have access and is intended for intermediate learners of English seeking to achieve level B2 of the Common European Framework of Reference for Languages (CEFRL)\textsuperscript{[9]}.

2.1 Organisation of the course

Since one of the aims of the course is to reinforce technical English, \textit{Intermediate Online English} has been divided into two distinct parts: one, covering semi-technical topics such as digital devices, ICT, electric vehicles, the WWW, etc., the other, focussing on more general topics such as leisure activities, the Olympic games, theatre-going, film festivals, etc. This division was also implemented in order to balance the intake of formal versus informal language and structures.

The courseware aims to provide an environment in which learners can develop communicative competences in their own way and in their own time. This is achieved, among other things, by presenting a default route to follow by offering a variety of activities and by developing a progression which moves from receptive to productive skills. Various strategies are used to encourage problem solving and resolution of specific tasks in order to develop use of the target language within specific communicative scenarios.
Intermediate Online English contains eight units which are all preceded by a grammar section aimed at revising grammatical points relevant to the course contents.

1. High definition television
2. The world of MP3s
3. World Wide Web
4. Electric vehicles
5. Going to the movies
6. Broadway
7. Travelling around Europe
8. The Olympic Games

Each unit is divided into ten sub-headings in order to cover practice in all four language skills, in addition to exercising grammatical structures and reinforcing technical vocabulary: warming up, listening comprehension, use of language, grammar, vocabulary, reading comprehension, technical focus, writing, business matters, and speaking, each of which include a number of exercises relating to the section’s prime focus. The course itself comprises over 300 exercises and activities that are designed to generate a sound basis for consolidation and acquisition of relevant language skills.
2.2 Teaching approaches

The courseware combines several interrelated teaching approaches, ranging from a functional/notional approach used in LSP ("Languages for Specific Purposes"), through a more traditional language form approach which primarily focuses on structures, to a more contextual approach. In determining the course design and structure, the functional/notional approach allowed us to specify the desired learning outcomes in terms of language functions (e.g. making a request, advising a colleague on how to proceed), general as well as specific notions (e.g. duration, location), and rhetorical skills (e.g. extracting information from a dialogue). The language form approach helped shape the structures present in the language functions in order to achieve learner awareness of the linguistic forms being used, and the contextual approach enabled us to determine the situations in which the functions, notions and structures were embedded.

2.3 Provision of reference materials

Provision of appropriate reference materials for the language level and objectives of the course being designed is, needless to say, of vital importance in autonomous language learning. When designing Intermediate Online English we therefore tried to ensure that the target language would provide all the elements necessary to support the process of the learner’s acquisition of language. To this end, InGenio offers a number of templates (see Figure 3 below) which enable language specialists to create reference materials that can be associated individually with single exercises or called up as independent tools during the student’s course of study.

Figure 3. Selection window displaying exercise templates.
As mentioned above, all grammar explanations in Intermediate Online English can be accessed independently at any point while the learner is completing the courseware activities.

The InGenio authoring tool also enables authors to create monolingual or multilingual glossaries and dictionaries. Each exercise template includes an option whereby any of the words can become a hypertext link which displays the glossed item or dictionary entry in student mode. The entries appear as pop-up windows (see Figure 3). If a highlighted word is not found in the courseware glossary, the author may specify a default online dictionary from which to retrieve the word entry in response to a student’s query. All entries may, optionally, be enhanced with an audio file or an illustration.

Figure 3. Pop-up window displaying entry in dictionary.

Figure 3 above shows a screen capture taken from Intermediate Online English illustrating an entry from the dictionary. Since the course is aimed at learners with a lower intermediate level of English, it was decided to include only a monolingual dictionary, each word being accompanied by its phonetic transcription.

2.4 Student assessment

Whilst studying with Intermediate Online English, students can, at all times, check correct or incorrect answers or request evaluation. Until the student actually requests evaluation,
exercises may be refreshed and any number of attempts made, unless the exercise has been marked as being a test item, in which case the “refresh screen” option will have been disabled.

Progress reports can be called up at any point during the learning process since a link to the assessment report is permanently available on the screen. The data is automatically transferred to the server while the materials are in use, therefore allowing students to monitor their progress during the course of their work. The results are presented in percentages, registering date and time, number of completed exercises, scores, etc., as shown in Figure 4.

Figure 4. InGenio sample student assessment report.

Because the system automatically keeps track of student performance, tutors using Intermediate Online English with registered users can access progress reports, and also monitor students’ written production based on open input activities, so that it can be corrected, assessed and appropriate feedback provided. Marks are automatically averaged by the system in order to give students a final score. When specified in an activity, learners may also upload any type of file (spreadsheets, audio, etc.) onto the server for their tutors to evaluate and assess together with all other course work.
2.5 Tutor feedback and interface

2.5.1 Tutor feedback

Users (materials writers, students, tutors and translators) access the InGenio tools when they have been registered on the system, which is managed by the system administrator. Once registered and where appropriate, students are assigned a tutor from the list of registered InGenio courseware tutors. These can supervise their students’ work in real time as the assessment tool described above transfers the data to the server instantly after the learner is satisfied with his or her input and decides to seek evaluation. This action is equivalent to handing in an exercise to a teacher for correction and marking in a traditional face-to-face class setting. In our view, it is crucial to provide online learners with adequate assessment tools (scores, individualised comments, etc.) and appropriate feedback, whether this is immediate or delayed (Pujolà, 2001), so as to avoid unnecessary frustration which may be caused by a perceived lack of support.

Feedback in InGenio can be delivered according to various modalities. The exercise templates include a default feedback mode providing learners with immediate feedback after completing an exercise and transferring the data to the server. This default feedback opens up as a separate pop-up window with a random comment and/or recommendation from a list that has been programmed into the system following a number of parameters describing learner performance. Scores themselves are also given, in addition to an indication of the time that has been spent on a given exercise.
Figure 5. Sample immediate feedback.

The default feedback can be altered by the materials writer at any time and specific feedback can be added for a particular exercise, although individualised corrective feedback may only be provided by the tutor when supervising the learner’s input through the InGenio tutor interface. In a gap-filling exercise, for instance, both positive and negative feedback can be provided for each blank space to be completed by the learner, alongside a hint and contextual help to aid comprehension and exercise completion, and overall feedback after completing the entire exercise. One of the advantages of multimedia technology is the possibility of providing a student with an immediate response at the mere touch of a key or mouse click. This is especially useful when dealing with positive or negative feedback in reaction to the learner’s performance in completing an activity or exercise.

2.5.2 Tutor interface

The InGenio tutor interface (see Figure 6 below) comprises two viewing modes. One includes the list of registered learners and general information such as the course a learner is registered on, average mark achieved, percentage of course completed, etc. The other is more detailed and provides information indicating specific performance on each exercise that has been evaluated. When a student transfers an open input text, the programme gives an overall provisional grade [10] until the tutor has personally assessed that exercise, given it a mark
and, optionally, provided specific individualised feedback, which can subsequently be accessed by the student.

Figure 6. InGenio tutor interface.

Tutors who are registered on the InGenio system are thus advised to make use of the various feedback utilities included in the system in order to provide learners with corrective feedback that is relevant for the learning process, as well as inspiring and motivating for students.

When dealing with fully online self-access courses, teachers/tutors need to ensure that delivery and assessment is as efficient as possible. Synchronous interaction between a teacher and his/her students is possible through systems such as video and audio conferencing tools or real-time text-based tools. Asynchronous communication is possible via e-mail, forum discussions, newsgroups, blogs, etc. For Intermediate Online English, e-mail was chosen as the basic asynchronous means of communication between the teacher/tutor and his/her students although university’s Learning Management System (LMS)[11] can also be used. This LMS allows UPV teaching staff to organise course subjects, to send students assignments, to provide follow-up tasks or activities, to provide immediate and regular updated information about changes in timetables, dates of exams, teachers’ absences, etc.
2.6 Design principles

*Intermediate Online English* was developed according to a number of different design principles such as system reliability, interoperability, scalability, accessibility, didactic efficiency, etc. (Colpaert, 2004) in an attempt to offer the EFL community a useful and efficient educational tool. Since the requirements in designing online self-access materials are substantially different from those when designing face-to-face supplementary materials, great effort was put into providing learners with all the necessary resources to support the autonomous learning process. These include provision of self-explanatory reference materials, additional explanations to support theoretical concepts, links to external sources, and student assessment principles. Provision of effective feedback is especially important when designing online self-access materials and attempting to predict learners’ behaviour and reactions when completing exercises of this sort is fundamental. Abrupt statements such as ‘No’ or ‘Incorrect, try again’ should be avoided (Gimeno, 2009: 88).

3. Software evaluation results

For two consecutive years, all the students who have taken Computer Assisted English as a subject at UPV have been asked to complete an opinion questionnaire at the end of the semester. The results of the questionnaires completed by a sample of 60 students (30 completed the course during the academic year 2007-2008; 30 during the academic year 2008-2009) have been analysed and the results are discussed below. Students in the sample group shared the following characteristics:

- They are all doing a technical degree at the UPV.
- They have completed the entire *Intermediate Online English* course.
- The presentation of the subject methodology, contents and instructions dealing with the *InGenio* system took place in several face-to-face sessions.

Despite being designed and delivered as a totally online self-access course, students were offered the possibility of attending several tutorial sessions to clarify doubts and for language reinforcement. Additionally, a personal interview was also conducted at the end of the term.

The questionnaire consisted of 20 questions based on the following topics:

1. **Usability of the course**: functional and technical features of the courseware and different aspects of the interface: navigation, technical requirements, clarity, user-friendliness, vocabulary and quality of audio files.
2. **Quality of the exercises**: quality of the exercises and activities; characteristics of audio files and reading comprehension texts; usefulness of exercises; their level of difficulty and suitability of instructions.

3. **General opinion**: level of satisfaction, fulfilment of expectations; use of course reference materials; degree of motivation in learning autonomously.

4. **Objective achievement**: achievement of goals; improvements in vocabulary etc; time spent completing course.

The answers reveal that the students’ overall level of satisfaction regarding the course was unanimously high and improvements in terms of proficiency, motivation and ability to work autonomously were all rated very positively. As regards user-friendliness, the majority of the students found the interface user-friendly and considered that navigation was intuitive, even for those with basic computer skills. They found the graphics and symbols clear, the layout (use of colours, fonts, icons) good, the input meaningful and interesting and the quality of the audio sequences satisfactory. Regarding the exercises, students’ opinions were positive in most aspects, such as clarity of instructions or usefulness of the reading and listening comprehension exercises. There was less agreement, however, concerning the level of difficulty of the exercises: most students considered the exercises were not easy to complete. This could be taken as a positive aspect of the course, as shown by the success rate statistics.

In both years, 60% (18 out of 30 students) passed the overall course. In 2007-08 the success rate was: 20% (6 students) “Pass with distinction”, that is 7 or 8 points out of 10; 40% (12 students) “Pass” (6 out of 10). In 2008-09, 3 students passed with “Excellent” (10/10); 6 achieved a “Pass with distinction”, and 9 students were awarded a “Pass” mark. The statistics indicate that the activities were challenging and at an appropriate level for most students and could be completed by making an effort and consulting the reference materials available.

The students thought that the content of the reference materials from the grammar section was sufficient and all referred to them before completing the exercises for each unit. All but one student considered that the course encouraged independent or autonomous learning (which is one of the main aims of the online course). As for the time spent on completing the course, most students actually completed it in the 45 hours predicted. They had the impression that both their general and their technical vocabulary had increased and that their overall level of English had improved after completing the course. More than 50% of the students preferred the units (5-8) which focussed on topics dealing with leisure activities such as sports, theatre and cinema-going, and which practised informal vocabulary;
while the rest preferred the units (1-4), which focused on semi-technical topics, technical vocabulary and practised a more formal use of the language.

A couple of comments made by the students in the open answer section are particularly interesting:

“In my opinion this kind of course is the future of the university”.

“It could be useful to introduce exercises about VRS (Voice Recognition Systems) in order to improve our pronunciation”.

Although only one opinion on this second point has been quoted here, in the past two years several students have indicated that it would be very useful to include voice recognition exercises in the course. As Majó and Marquès (2001) point out, voice recognition systems that transcribe what is said are already commercially available. However, this kind of system belonging to the domain of Artificial Intelligence (AI) is currently underdeveloped on the Internet, which is one of the reasons why they are not yet included in Intermediate Online English. Nonetheless, a foreseeable rapid evolution and implementation of voice recognition systems on the Internet in the future will enable us to improve the course by integrating this technology in some exercises.

4. Concluding remarks

The InGenio Intermediate Online English language course for engineering students, offered by the Universidad Politécnica de Valencia since 2004, is part of the programme undertaken by the Department of Applied Linguistics to adapt to the European Higher Education Area (EHEA), in compliance with EU recommendations regarding the Bologna process and the European Commission’s “Action Plan for Promoting Language Learning and Linguistic Diversity”[12]. The course integrates the new trends and guidelines laid out in self-access and autonomous learning theories, and helps students to reach a B2 level of proficiency in English while improving their technical vocabulary and their ability to learn autonomously. Its implementation is one of the ways in which the University is following the EU recommendation that European universities should develop a coherent language policy which clarifies their role in promoting language learning and linguistic diversity. Furthermore, it can be considered as a step towards the achievement of the principle goal of the “Action Plan for Promoting Language Learning and Linguistic Diversity”, i.e. to enable every citizen to communicate in at least two foreign or second languages.

The CAMILLE Research Group continues to carry out research into technology enhanced language learning and testing and to conduct on-going assessments of the
courseware designed and published with the *InGenio* authoring system. We hope to carry on providing innovative solutions to autonomous and self-directed learning, as well as improving existing courses in terms of quality, contents, user-friendliness, layout, efficiency, attractiveness and functionality suited to the needs and demands of different groups of students. At the same time, we aim to continue to prepare our students for a society in which the ability to communicate and to interact fluently and spontaneously with speakers of other languages is becoming increasingly necessary.

**Notes**

1. CAMILLE (Computer Assisted Multimedia Interactive Language Learning Environment) is a UPV research group led by the author of this paper.
2. For further reading on different authoring tools that are currently available for language learning purposes, please refer to Gimeno (2008).
3. By “source language” we mean the learner’s native language or L1.
4. Permission to edit is granted by the System Administrator and is given either in order to create totally new courseware or to modify existing materials. The materials embedded in the system comprise the *InGenio* database and are hosted on a central server. When given permission, language specialists can access the database and feed their own newly created courseware with materials drawn from the archive. The materials can be accessed as isolated multimedia components (video, audio or image files) or as readymade exercises or reference materials.
5. Registered users access the system by means of a user name and password. They may or may not have a tutor.
6. For a more detailed description of the templates included in the *InGenio* authoring tool, see Gimeno, 2009.
7. HTML (HyperText Markup Language) is the predominant markup language for web pages which provides a means of creating structured documents.
8. This is an elective subject worth 4.5 credits (45 hours of student workload) open to all UPV students. For further information on this subject, see the Course Study Guide on the UPV website at [http://www.upv.es/pls/oalu/sic_asi.Busca_Asi?P_VISTA=&P_IDIOMA=c&p_cod=3235&p_caca=act](http://www.upv.es/pls/oalu/sic_asi.Busca_Asi?P_VISTA=&P_IDIOMA=c&p_cod=3235&p_caca=act).
10. This provisional grade is calculated based on the scores achieved by the learner in the exercises that can be automatically corrected by the system.
11. UPV has adopted a customised version of the Sakai LMS known as PoliformaT.

**References**


