

# A DESCRIPTION OF PROTOTYPE MODELS FOR CONTENT-BASED LANGUAGE INSTRUCTION IN HIGHER EDUCATION

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Content-Based Instruction has been described as a new paradigm in language education, centered on fostering student competence in a second or foreign language while advancing in the knowledge of a subject matter. This approach is widely used in an extensive number of contexts and educational settings all over the world in a variety of models: some of the most common ones in foreign language education at post-secondary level are *theme-based* courses, *adjunct/linked* courses, *sheltered* subject-matter instruction, and *second language medium* courses. Since the possibilities are multiple and purposefully designed to match different needs, this paper aims at offering a conceptual description of the main characteristics, specific applications, and perceived effectiveness of the different models as these are reported in the literature available. Prior to the presentation of the models, the rationale and evolution of the mainstream CBI paradigm will be presented, and a review of the existing literature contemplated. Additionally, an extensive, up-dated list of works in the area will be included in the reference list.

## The Rationale and Benefits of CBI

Content-based instruction (CBI) bases its rationale on the premise that students can effectively obtain both language and subject matter knowledge by receiving content input in the target language. Although it has been recently recognised by influential authors such as Rodgers as “one of the Communicative Language Teaching spin-off approaches” (2001, 2), some authors contemplate the paradigm within an even wider perspective: according to Stryker and Leaver (1997, 3-5), for instance, CBI “is a truly and holistic approach to foreign language education ... (which) can be at once a philosophical orientation, a methodological system, a syllabus design for a single course, or a framework for an entire program of instruction”.

The benefits of the approach are directly or indirectly associated with an extensive body of research from a variety of fields. Strong empirical support for CBI can be found in second language acquisition research, in training studies and in cognitive psychology, as well as in the outcomes documented by successful programs in a variety of contexts and levels of instruction (Adamson 1993; Dupuy 2000). A synthesized though accurate revision of the benefits perceived in view of the different areas is included in Grabe and Stoller (1997); the conclusions derived from these findings lead these authors to suggest seven rationales for CBI that can be summarized in the following points:

1. In content-based classrooms, students are exposed to a considerable amount of language while learning content. This incidental language should be comprehensible, linked to their immediate prior learning and relevant to their needs. (. . .) In content-based classrooms, teachers and students explore interesting content while students are engaged in appropriate

- language-dependent activities (. . .). The resultant language learning activities, therefore, are not artificial or meaningless exercises.
2. CBI supports contextualized learning; students are taught useful language that is embedded within relevant discourse contexts rather than as isolated language fragments. (. . .) Thus, CBI allows for explicit language instruction, integrated with content instruction, in a relevant and purposeful context.
  3. (. . .) The use of coherently developed content sources allows students to call on their own prior knowledge to learn additional language and content material.
  4. (. . .) In content-based classroom, students are exposed to complex information and are involved in demanding activities which can lead to intrinsic motivation.
  5. CBI (. . .) lends itself well to strategy instruction and practice, as theme units naturally require and recycle important strategies across varying content and learning tasks.
  6. CBI allows greater flexibility and adaptability to be built into the curriculum and activity sequences.
  7. CBI lends itself to student-centered classroom activities.

Grabe and Stoller 1997, 19-20

## The Evolution and Scope

As an approach to second and foreign language teaching, content-based instruction is a relative newcomer to the field; its application in the educational context, however, is not completely revolutionary for it grows out of its origins in immersion education in Canada from the 1960s and, later, in English for specific purposes programs, and in the 'Foreign Language Across the Curriculum' movement in the US and Britain. Some other courses or programs were experimented in other contexts such as the former Soviet Union (Garza 1987).

It first appeared, however, on the general language teaching scene in the mid- to late 1980s, and has gained increasing popularity and wider applicability in the last ten years. This prominence can be easily perceived in the wide range of contexts, educational stages and content areas involved. Regarding contexts, although most of the cases reported refer to settings within North America, there are also numerous references to the application of the model in countries other than the US and Canada, with specific documentation referred to contexts such as Japan (Murphey 1997), Australia (Chapell and DeCourcy 1993), Hong-Kong (Chapple and Curtis 2000), Indonesia (Chadran and Esarey 1997), or Argentina (Snow, Cortés and Pron 1998). Experiences in Europe are documented in the works of Fruhauf, Coyle *et al* (1996), Masih (1999), and Marsh and Langé (1999, 2000). Particular documentation regarding the application of the model in Spain can be found in Scott-Tennent (1995), Navés and Muñoz (1999), and Lorenzo (2001). Within the European context, the integration of language and content teaching is perceived by the European Commission as "an excellent way of making progress in a foreign language" (<http://europa.eu.int/comm/education/language/home.html>), this institution having contributed to developing the network *Euroclit*, a forum for projects and proposals in the area of language and content integrated learning.

With regard to the plurality of educational levels in which CBI can be used, the paradigm has proved to be a valid approach for language teaching at all stages of instruction, from primary school to university levels, both in second and foreign language teaching situations. In terms of content fields, a wide number of courses and programs have been developed to advance language learning while developing content knowledge in different academic areas. Thorough descriptions can be found in the fields of literature (Holten 1997), history (Strole 1997), art history (Raphan

and Moser 1994), film (Chapple and Curtis 2000), mathematics (Cantoni-Harvey 1987), journalism (Vines 1997), sociology (Gaffield-Vile 1996), culture and civilization (Ballman 1997), and national or regional features and issues (Ryding and Stowasser 1997; Klee and Teddick 1997; Stryker 1997; Klahn 1997). References to courses in psychology, economy, geography, political science, etc. have also been reported (Dupuy 2000).

## Literature Review

As Wesche and Skehan (2002, 224) state, “an abundant and continually evolving literature on content-based instruction now exists”. Documentation on the original foundations of the paradigm can be found from the late eighties in the pioneering works by Mohan (1986), Cantoni-Harvey (1987), Crandall (1987), Benesch (1988), and Brinton, Snow and Wesche (1989) among others. Despite its short-lived presence in the foreign language teaching arena, now, at the beginning of the twenty-first century, there exists a more than abundant literature recently published both in the form of books (Short 1991; Krueger and Ryan 1993; Snow and Brinton 1997; Fruhauf, Coyle *et al.* 1996; Stryker and Leaver 1997; Marsh, and Langé 1999, 2000; Kasper *et al* 2000; Haley 2002, among others), and articles in refereed journals (Crandall 1994, 1998; Short 1993, 1994; Gaffield-Vile 1996; Kasper 1995, 1997; Sagliano and Greenfield. 1998; Snow 1998; Pally and Bailey 1999; Dupuy 2000, among many others).

CBI is also contemplated as one of the most representative contributions to contemporary foreign language pedagogy in the new editions of seminal titles in the field such as Celce-Murcia (2000) *Teaching English as a Second or Foreign Language*, Larsen-Freeman (2000) *Techniques and Principles in Language Teaching*, and Richards and Rodgers (2001) *Approaches and Methods in Language Teaching*. Attention to the approach has been paid as well in relevant reference works in applied linguistics, such as the recently published *The Oxford Handbook of Applied Linguistics* (Kaplan 2002), which devotes one of the only three chapters in the part of ‘The study of second language teaching’ to “Communicative, task-based and content-based instruction” (Wesche and Skehan 2002).

## Prototype Models of CBI at the Post-secondary Level

It is in post-secondary education that CBI probably offers the richest variety of proposals in terms of creativity, functionality, and overall usefulness in view of the further applicability of the gained outcomes. Among the most common variations in foreign language education at the postsecondary level, four models are commonly considered: *theme-based courses* (TB), *adjunct/linked courses* (AL), *sheltered subject matter instruction* (SSM), and *second language medium courses* (SLM).

### 1. Theme-based Courses (TB)

Theme-based courses constitute the most common model in CBI thanks to its relative lack of complexity for implementation, as language instructors operate autonomously from the rest of the faculty and there is no demand for organizational or administrative adjustments. In TB, it is a language teacher, and not a subject specialist, that is responsible for teaching content. The foreign language syllabus in TB courses is organized either around different topics within a particular discipline, or including a number of individual topics associated with a relevant general theme or content area. In both cases, themes are the central ideas that organize major curricular units; thus they have to be chosen to be appropriate to student academic and cognitive interests and needs, content resources,

educational aims, and institutional demands and expectations. Normally, a course deals with several topics along its progression. Thus a typical TB course consists of a number of subunits focused on different topics which explore more specific aspects or different perspectives of the general theme. In general terms, topics should be arranged to provide maximum coherence for theme unit, and to generate a range of opportunities to explore both content and language. Each course is, in short, a sequence of topics linked together by the assumption of a coherent overall theme.

TB courses do have explicit language aims which are usually more important than the content learning objectives. In the continuum that Brinton, Snow and Wesche (1989) distinguish between what they call "weak" and "strong" forms of CBI, TB courses would constitute the weakest representation of CBI models. According to this pattern, weaker forms would include language courses whose main aim is to develop learners' communicative proficiency, whereas stronger versions would integrate content courses for L2 speakers in non-language disciplines, in which the primary goal is mastery of the subject matter.

Courses designed according to the TB approach usually feature a variety of text types and discourse samples, combining oral input – teacher presentations, video sequences, recorded passages, guest lecture talks...-- with written materials – news articles, essays, informative excerpts, literary passages...---. Another key characteristic of these courses is the interest in the concept of integrated skills. Although the topics presented are commonly grounded on listening or reading, the oral passage or written text always serves as an optimal foundation for further exploring other areas –grammar, vocabulary, language awareness... – as well as for acting as springboards for the practice of productive skills –making presentations and oral reports, engaging in discussions and debates, giving oral or written response to questions or issues associated to the topics, writing summaries, commentaries...---. Different skills and language analysis are therefore integrated around the selected topics in a meaningful, coherent and interwoven manner.

Suggestions for designing theme-based units are provided in Gianelli (1997) and Stoller and Grabe (1997). References to successful TB courses or programs are numerous. Klahn (1997), for instance, provides a detailed review of a course for advanced learners of Spanish centered on 'Contemporary Mexican Topics' developed for the School of International and Public Affairs (SIPA) of Columbia University (New York, US). The course was interdisciplinary in nature and scope for, as the author writes, "students who took the course were graduate students studying for a master's degree at SIPA, Ph.D. students in history, political science, or anthropology, graduate students in Columbia Teachers College, law students, journalism students, and other advanced undergraduate students who met the entrance requirements" (Klahn 1997, 205). The course was organized around an assortment of topics sequenced "by carefully controlling the quantity and quality of the content of the material so that each lesson guided the student to a higher level of competence (...) The different topics lent themselves to the performance of certain linguistic tasks that, studied in a specific order, facilitated students' progress" (206). The topics included were (1) The History of Mexico, (2) The Political System, (3) Means of Communication, (4) The Mexican Economy, (5) Geography and Demography, (6) The Arts, (7) Popular Culture, and (8) US-Mexican Relations. All the materials used for the course were samples of authentic Mexican discourse, including historical, biographical and autobiographical accounts, newspapers and magazine articles, editorials, film reviews, economic predictions and graphs, political speeches, poems, short stories, popular traditions, interviews, business letters, recipes, and tourist brochures, as well as sections of films, television programs, soap operas, TV interviews, commercials, and documentaries. Materials were selected and occasionally edited so that they would progressively

become more difficult, complex, and challenging. In terms of outcomes, the course had “very positive results in the cognitive, linguistic, and affective domains. (...) Student evaluations demonstrate the potential for a course of this kind to achieve the goal of greater socio-cultural understanding through increased foreign language fluency” (Klahn 1997, 209).

TB courses constitute an excellent tool for the integration of language and content providing that curriculum planners, course designers and teachers make all possible efforts to keep language and content exploration in balance, not to lose sight of content and language learning objectives, and not to overwhelm students with excessive amounts of content that may lead to overlooking the language exploitation aspects of instruction.

## **2. Adjunct/Linked Courses (AL)**

AL courses constitute a more sophisticated pattern for the integration of language and content, as they are not developed on their own, but assisting an existing discipline class. The AL model aims at connecting a specially designed language course with a regular academic course. AL courses are taught to students who are simultaneously enrolled in the regular content course, but who lack the necessary competence to follow the course successfully unless some additional aid is provided. Both the regular discipline and the adjunct course share a common content base, but differ in the focus of instruction: whereas the content instructor focuses on academic concepts, the language teacher emphasizes language skills using the academic content as a background for contextualizing the language learning process. The adjunct courses work therefore as support classes for regular subject matter courses, and offer excellent opportunities to develop the academic strategies necessary to cope with real academic content. First of all, the language component of the course is directly linked to the students' academic needs and so, they can get help revising notes, writing assignments, preparing for tests, etc. as well as advancing in the conceptual background necessary to understand the content material. Additionally, the fact that the course deals with real academic subject matter in which students must earn a passing grade in the parallel course, helps to increase motivation in terms of mastering both the language and the content.

These courses are more commonly offered within second language contexts rather than in foreign language ones, although they are also used at international institutions or national institutions using a foreign language as the medium of instruction. Detailed examples of the implementation of the model are provided, among others, in Flowerdew (1993) for teaching biology at a university in the Middle East, and in Iancu (1997) for teaching history and sociology at the George Fox University in Oregon (US). Another illustrative example of how AL courses work can be found in the pioneering Freshman Summer Program at the University of California Los Angeles within which the most popular course is Introduction to Psychology. As Adamson describes,

The ESL component of this course emphasizes five areas of study: reading, writing, study skills, grammar, and discussion of the content material. During the first week of the course when the psychology instructor is covering the history and methods of psychology, the ESL reading component concentrates on previewing and predicting. The writing component covers topic sentences, paragraph unity, and writing paragraphs for definition. The study skills component covers verb tenses, determiners, and relative clauses. These activities are not much different from those taught in a study skills course in an intensive ESL program, but the adjunct format is much more effective because

the activities are not done for their own sake but rather to help students understand material in a course that they must pass in order to graduate.

Adamson 1993, 126

Although the benefits of these courses are reported as remarkable, the implementation of the AL model demands organizational requirements and coordination efforts that may exceed the possibilities of many institutions. Synchronization between instructors is essential: the syllabi of the two classes have to be negotiated with respect to each other, although it is typical that the discipline course provides the point of departure for the language class, dictating both the content and its progression. In this regard, Lonon-Blanton affirms: "As it is obvious, this model requires a willing interaction and co-ordination among teachers in different disciplines and across academic units and, for that reason, may be administratively difficult to arrange" (1992, 287).

### **3. Sheltered subject-matter instruction (SSM)**

"A sheltered content-based course is taught in a second language by a content specialist to a group of learners who have been segregated or 'sheltered' from native speakers" (Brinton, Snow and Wesche 1989, 15). The term 'sheltered' derives from the model's deliberate separation of second language students from native speakers of the target language for the purpose of content instruction. In sheltered subject-matter instruction, the class is commonly taught by a content instructor, not a language teacher; this content instructor, however, has to be sensitized to the students' language needs and abilities, and has to be familiarized with the traits of the language acquisition process. Nevertheless, some authors mention the possibility that the instructor may be a language teacher with subject-matter knowledge, or an instructor working collaboratively with a language specialist and a content specialist (Gaffield-Vile 1996). In order to meet the desired effect, there has to be an accommodation of the instruction to the students' level of proficiency in the language; content, however, is not watered down, and includes the same components as a regular subject course. Although the main characteristic of the model is facilitating the development of language abilities for students to meet the course aims, it has to be kept in mind that the overall purpose of SSM courses is content learning rather than language learning, so this model constitutes one of the "strong" paradigms within the general framework of CBI.

SSM courses are typical of second language situations rather than of foreign language instruction. The sheltered model in post-secondary education was originally developed in Canada at the University of Ottawa as an alternative to the traditional university foreign language class (Edwards, Wesche, Krashen, Clement, and Kruidenier 1984). Gaffield-Vile (1996) offers an account of a more updated experience in a sheltered Sociology course "developed in order to bridge the perceived gap between the standard EAP (English for Academic Purposes) course and the normal first-year undergraduate courses at universities in Britain":

Through the subject of sociology, the model suggested here is designed to develop language and study skills, especially academic writing. The course begins by looking at the social sciences in general, and examines the methods of research used by social scientists, particularly sociologists. After that it examines major theoretical perspectives which shed light on issues such as social stratification and social class in Britain, and concepts of wealth and poverty, crime and deviance. The major institutions are also examined, including the political system, the mass media, agencies of social control, the family, education and religion. Because the course marries subject content with EAP content, an EAP syllabus is written alongside the content syllabus, highlighting skills such as:

*Reading:* Reading sociology texts to identify main and supporting ideas, examples and details; differentiating between relevant and irrelevant information; skimming and scanning for key ideas; reading, summarizing, and reinterpreting information in diagrammatic form; identifying bias in written text; following the main line of an argument.

*Writing:* Writing summaries; understanding essay titles; planning essays; writing essays to 1,500-word length; examinations; using sources appropriately and correctly, using exposition and argumentation.

*Listening:* Listening to one-hour academic lectures and grasping the gist of an aural text with complex language; differentiating between fact and opinion; presenting aural text in a different form.

*Speaking and oral interaction:* Answering questions and giving information following a lecture; giving opinions; using conversational discourse strategies for interrupting, holding the floor, disagreeing or agreeing, and qualifying; requesting clarification; giving a short oral summary of main points; giving a 15-minute prepared seminar presentation using visual aids on a sociological topic.

Gaffield-Vile 1996, 108

This course differs from an ordinary 'Introduction to Sociology' course not in the content, which is equivalent, but in the provision made by the former to cope with language aspects in order to facilitate non-native students' performance in the course as well as to help them develop academic language skills necessary for successful further study. The course would therefore serve as a bridge between a skill-based EAP course and regular university courses.

Authors agree that, when properly conducted, sheltered courses can offer a very effective approach for integrating language development and content learning for students whose language abilities may not yet be developed enough for them to progress successfully in demanding content courses designed for native speakers. A drawback for the implementation of courses of this kind, however, would be the difficulty to find either content specialists familiarized with the needs and demands of students with limited operational capability in the language of instruction, or language instructors with the adequate background for teaching real content disciplines at university level.

#### **4. Second language medium courses (SLM)**

A fourth option which is not always strictly considered as a model in CBI, but which is somehow related to the philosophy of the paradigm is what constitutes *second language medium courses* (SLM), which are advanced regular academic courses in particular disciplines (history, economy, psychology, etc.). In these cases, language aims are not contemplated as part of the curricular formulations of the given courses; in fact classes of this kind normally proceed without specific instructional emphasis on language analysis and practice, and without making adjustments to adequate the discourse to the level of proficiency of students. The context, however, provides valuable opportunities for language learning as it involves intensive exposure to highly contextualized language of particular relevance to the academic interest of students. These therefore manage to advance their language competence by developing receptive and productive skills though in an unplanned, unsystematic way. This would be the case, for instance, of advanced-level literature or linguistics courses within the English Studies (*Filología Inglesa*) degree in Spanish universities, with classes taught entirely in English to a non-native audience. In the aforementioned existing continuum between the weaker and stronger models of CBI, SLM would constitute the strongest version within the framework.

## Conclusion

As it has been exposed, CBI enjoys an increasing attention in all educational contexts in general, and in post-secondary courses in particular. Moreover, as Wesche and Skehan point out, "it is likely to continue to flourish in contexts where learners have a clear and present need to develop their academic second language skills" (2002, 228). Despite the perceived differences in their orientation and immediate aims, all the models described share the view of language as a medium for learning content, and content as a resource for learning language. Although the outcomes of each individual course or program will depend on the fulfillment of the necessary conditions and on the details of its implementation, the overall results of CBI in the different models have proved to be effective, motivating, and particularly advantageous for language students in tertiary education settings.

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