

# **The Introduction of Chinese onto the curriculum of Spanish engineering students at the Polytechnic University of Valencia**

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10 years ago the introduction of Chinese onto the curriculum of engineering students (offered German and French in addition to English) at the Polytechnic University of Valencia was unthinkable, but last September my first Chinese class was full. This communication sets out to analyse the motivation and experiences of the first batch of students, comparative references being made to German beginners at the same institution. Of particular interest is how students (and potential employers) perceive the relevance of Chinese to their future careers.

## **Introduction**

In the last decade, with the exponential economic growth of the Chinese economy and its impact in all corners of the world, Spain (which traditionally had little to do with China) has felt the ever increasing economic imposition of China on its economy, reinforced by a substantial and visible Chinese immigrant community which is loath to integrate. Traditional Valencian industries such as shoemaking and clothing manufacture have been forced to close or radically adapt in the face of cheap imports from China and numerous Valencian entrepreneurs have decided to invest in China, often moving all or part of their operations there. Many Chinese immigrants have set up wholesale distribution and retail businesses and Chinese-run shops of many kinds have sprung up all over Valencia in addition to the traditional restaurants. In universities, where not a single Chinese-language university degree exists, under- and post-graduate East Asian Studies degrees have been introduced, including modules in Chinese language.

About 70% of Chinese immigrants in Valencia come from Wenzhou and Qingtian in southern Zhejiang Province and some individuals from Shanghai and Hangzhou. These are all speakers of highly divergent Wu “dialects” (“languages” by Western standards) so that their dialects are all mutually unintelligible. Some 15-20% come from Fujian Province and speak variants –mostly northern- of the Min family of “dialects”. Recently immigrants have also come from more inland, mostly Mandarin-speaking areas and there are small groups of Taiwanese and of Cantonese-speaking Hongkongese.

In Spain Mandarin is used as inter-“dialectal” lingua franca, even between speakers of different Wu languages. Some parents even bring up their children in Mandarin and although most children are brought up in Wu or Min “dialects”, many are exposed to Mandarin at the weekend Chinese schools, listening to adults speaking it and from Chinese television and videos, some becoming competent in it in addition to their “dialect” and Spanish (and sometimes Catalan). This contrasts with the UK Chinese community, which (despite the recent influx of mainland, Mandarin-speaking immigrants) is still mostly Cantonese (and Hakka) –speaking.

## **Isn't it enough to speak English?**

Despite the universal hegemony of English there is a steady demand for engineers and other professionals who, in addition to English, know certain “strong” languages, namely German or French and occasionally Italian – languages in demand at Valencia Polytechnic. In French and German-speaking countries, English alone is considered

insufficient for our students intending to study, gain work practice and take up employment.

Lamentably, few students bother learning “weak” languages such as Dutch, Greek, Norwegian or Czech and expect to get by for 6 months to a year on just English. Spanish itself is considered a “strong” language and it is automatically assumed that foreign students and trainees coming to Spain will either arrive with a knowledge of Spanish or acquire it in the course of their stay, even if they do start off by communicating (or trying to!) mainly in English.

Thus some languages are seen as important enough to be worth learning (even if sometimes supplemented by English), whereas others are not. To which category does Chinese belong?

### **Do European professionals need to learn Chinese to deal with China?**

Can't Europeans rely on English to deal with the Chinese? The answer to this question has changed radically over the last two decades.

Not many years ago many British and Spanish businessmen maintained they did not need staff who spoke Chinese to deal with the Chinese, because the latter provided free interpreters. Thus in the late 1980s a major Spanish China-trade company only expected its Madrid executives to speak English. Gradually Western firms involved in China became aware that it was not very satisfactory always sending technical and commercial staff to China who spoke no Chinese, especially for long periods and feeling isolated and stressed working in an environment where they understood nothing and where English (much less Spanish) is understood by a tiny fraction of the Chinese population. It became clear that to avoid the need for full-time interpreters and to survive 10 minutes on the street or travel by public transport etc. requires at least a minimal knowledge of Chinese.

European firms have realised that doing business and developing relations with China is more than just cold buying and selling. An understanding of Chinese society and culture (inextricably tangled up with the language and script) is an essential part of the process. It has become patent that learning (even a minimum) of Chinese helps break down barriers with Chinese counterparts and to better understand Chinese behaviour. Thus even if English/Spanish is the main language of commercial and technical negotiations, a basic conversational knowledge of Chinese helps to “break the ice” and show the Chinese side that one is interested in understanding their country and culture.

Westerners are also realising that when interpreters are provided only by the Chinese side the language difference will be exploited to the advantage of those employing these.

Chinese is suddenly being considered a “strong” language and its complexity no longer seen as insurmountable. Demand for Chinese at the Engineering Faculty of the Polytechnic where I teach has surged and for 2006-7 there are now 3 levels, demand lagging not far behind that for French (only 30 years ago the main foreign language taught in Spain) and equalling almost half that for German. Interestingly, Arabic and Portuguese (official languages of Spain's immediate neighbours) are not taught.

### **Reasons for studying Chinese:**

10 years ago, suggestions of introducing Chinese onto the curriculum of engineering students (who were offered German and French in addition to English) at the Polytechnic University of Valencia met with amused laughter. In 1995-6 I gave a course in Chinese in the extra-curricular department of the Polytechnic to 10 active, well-

motivated students (mostly) and administrative staff. Among their motives for choosing Chinese were wishing to travel alone around China and a love of Chinese culture, philosophy and food. One student was preparing to climb a Himalayan mountain from the Tibetan side and wanted to communicate with the official Chinese escort. Several students mentioned that it was a language with a future and that it might one day be useful in their professional life, without being able to clearly see short-term benefits. However, in succeeding years there was insufficient demand even to justify an extra curricular class.

By the time the Open University of Catalonia offered a Part Two (4<sup>th</sup> and 5<sup>th</sup> years) degree course in East Asian Studies (which included Chinese Language courses) in 2003, with a large number of students matriculating, the motives for learning Chinese were now starting to become increasingly instrumental. Although many students expressed a long-standing interest in aspects such as Chinese painting, poetry, taijiquan and history, a large number of students had chosen to learn Chinese, at least in part because they wished to work (or were already working ) with a company that was involved in China. A few years ago that was a select group of companies, whereas today virtually all Spanish companies of any size are interested in China.

The reasons (in order of frequency) given by my students this year (2005-6) were:

- A feeling that in the present economic climate (and for the foreseeable future) Chinese will be a valuable asset for an engineer to have on their CV in addition to English (“everyone knows English” it is assumed) and even to German and French. So many Valencian businessmen and professionals have visited China and received Chinese delegations in recent years that this is now considered totally normal and routine. Hitherto the feeling among many engineering students has been that it is necessary to offer German (in the greatest number of cases) or French in addition to English. Suddenly, with the deep impact of China on the Valencian and world economy, many people are thinking that Chinese is the perfect complement to offer in addition to English and possibly also German or French. Indeed a high proportion of students who choose Chinese have already learnt some German and/or French as well as English. In addition, well over half are competent to varying extents in Catalan (also called Valencian), and about 40% speak it as their home language or one of their home languages.
- Out of interest for the Chinese culture, land and language and the hope to visit China. Students who expressed this view however, sometimes admitted that they might not have taken the leap to learn Chinese if it had not also been professionally advantageous.
- The hope of doing their final project, an English-medium post-graduate course at a Chinese University or a work placement in China. Students are aware that once in China their chances of contacting firms there about permanent jobs are good.
- The family firm or company where the student works or hopes to work has contacts with China.

These are not unlike the reasons given for choosing to study German, except that in the case of German students declared that it was Germany’s particular strength in engineering-related fields (e.g. the motor-car industry) that made it so important for them, whereas China is seen as affecting most sections of the Valencian (and Spanish) economy. It is true that Germany is somewhat closer than China, but with fast intercontinental travel the latter is not perceived as being out of reach.

One big difference, probably caused by the fact that it was being offered for the first time and those choosing it tended to be the most motivated students, is the high motivation of the students in general and the high proportion who did not even need the credits of the subject, but just did it out of interest.

## **Chinese courses taught in 2005-2006**

### ***Semester A: Level 1***

(2 hours twice a week over 13 weeks plus 8 extra hours in the language laboratory, a total of 60 hours). Over 45 students began the course and numbers stayed relatively high until the end of the course, dropping to about 35 regular attendees. As is typical for students in their final and pre-final years (who predominated in the course) attendance was often sporadic or only on one day a week, due to academic or work commitments.

The textbook ("Hanyu 1" published by Herder 2004) was chosen on the grounds that it was not only Spanish-medium, but also highly communicatively orientated (a rarity in the world of teaching Chinese), equipping students with everyday linguistic resources to enable them to exchange basic personal information and contained ample and realistic listening comprehension exercises. Its main drawback was the premature abandoning of pinyin transcriptions once a character had been introduced, something I had not realised at the moment of choosing it, resulting in my having to painstakingly transcribe many character texts of the book into pinyin using energies that I could have devoted to other things.

Pair- and group-work tasks where basic personal information and information about daily routines were exchanged were conducted, mainly in the form of simulations or information-gap activities. On various occasions an art-student from Peking –herself eager to make Spanish friends and improve her limited Spanish- took part in these activities, thus adding a touch of realism and some less shy students became her exchange partners. As homework, students were sometimes given questions to ask in local Chinese shops and restaurants and in laboratory sessions were introduced to on-line Chinese courses and language tools.

Initially, I had envisaged introducing a fair number of characters, but due to time constraints and the importance of correctly assimilating the sounds and tones, decided to concentrate on consolidating the correct use of the pinyin romanisation and only gave a brief introduction to characters and their principles.

Continuous evaluation was via oral interviews, written assignments (in pinyin) and two class tests.

### ***Semester B: Level 2***

(2 hours twice a week over 13 weeks, a total of 52 hours). About 30 students turned up at the beginning of the course, of whom over 20 continued to attend regularly through most of the semester. In the first part of this course the same basic content of the previous semester was revised and expanded and Chinese characters introduced. In the second part the new topics of means of transport and eating were added and that of daily activities expanded.

Although a lot of time was now devoted to learning to write characters with the right stroke order and proportions, emphasis on pronunciation and oral communication was continued and integrated with the characters. Students wrote messages to one another in characters, thus using them as a direct classroom communicative tool and were required to write down shopping lists of (inexpensive) things they wanted from Chinese shops and to show them to Chinese shopkeepers, after having first tried to communicate orally what they wanted.

### **Practical problems encountered –and contrasted, where relevant, with experiences teaching German**

It is important to bear in mind that Chinese is but one subject on a busy curriculum and not students' main degree subject.

#### ***Chinese verses romanised scripts***

I initially assumed that a large proportion of students would want to learn only the pinyin romanisation or at least postpone learning Chinese characters as they already had enough on their plate only assimilating the pronunciation and tones. Although students did agree with this approach, most **did** want to “give characters a go” with the support of pinyin.

In my opinion the main aim should not be so much the total memorisation of all characters, but rather passive recognition, combined with familiarisation through writing and knowledge about where to find information and Internet resources about how to write each character (stroke order etc.) both by hand and in the computer with pinyin input. There are free pages on Internet such as [www.rikai.com](http://www.rikai.com) which gloss all characters with a pinyin transcription and English translation and very good (although expensive) software such as Wenlin which does this and more.

#### ***Phonetic and tonal difficulties***

Apart from tonal features, another stumbling block was distinguishing between the various unfamiliar consonants, especially between aspirated and non-aspirated unvoiced ones. Students had to make more effort to assimilate the pronunciation than in the case of German although certain German sounds were almost as difficult to acquire.

#### ***Grammar differences***

Students accepted the different features with good grace. Compared to German with its 3 gender case system and conjugated verbs (although not as complex as Spanish and Catalan ones!) Chinese was seen as easy.

#### ***Time taken to master a basic knowledge.***

In this first year students who have taken levels 1 and 2 have been able to attain a level equivalent to students who have done German level 1. As with German there was considerable individual variation in attainment, a dedicated hard-core of students (about 12) being capable of talking and writing about their personal details and activities in a way intelligible to any moderately patient speaker of Mandarin Chinese.

Other students succeeded much less in dominating phonetic differences and vocabulary, but this happens with German learners and is to a large degree proportional to the time and effort invested by busy learners, many of whom are in their final or pre-final years and some of whom hold full- or part-time jobs. What undoubtedly added time was the learning of the script.

Chinese pronunciation and tones do present difficulties and it is true that at first many sounds and words “sound the same” to students. However, the experience of this year (as well as having observed how some foreigners in China picked up a working knowledge of Chinese through pure necessity) show that conscientious study combined with amply rehearsing communicative situations through information-gap and other communicative activities and exposure to Chinese speakers does lead to assimilation of the oral language, in many cases not significantly far behind (in terms of

ability to express themselves on the topics covered ) that of equivalent German learners. In the case of the less able students, at least the foundations have been laid, which through the right kind of practice and out of necessity they can build on.

Although the Chinese script slows down student's progress in China, passive character recognition and guided writing were seen as desirable and achievable.

### ***Advantage of Chinese community***

Unlike German learners, our Chinese learners as yet have no large reserve of Chinese-speaking students to draw on, though this is set to change soon. However, they can visit a large number of Chinese shops (of all kinds), restaurants and bars – even hairdressers- many of whose proprietors speak little or no Spanish. Thus students can use Chinese to shop, order a drink or meal and chat with the owners or Chinese customers. Germans resident in Valencia do not have many recognisably German establishments except on the Costa Blanca. I encouraged students to go to Chinese establishments and report back on their linguistic interactions, but some were so shy they preferred to loose marks and not go.

### ***Prestige of learning Chinese***

Students love the idea of being among the first engineering students to study Chinese. Telling their family and friends that they are learning something so outrageously exotic produces admiration and surprise. This effect may weaken in the long-run if learning Chinese becomes commonplace - 11 years ago German was also considered exotic at the Polytechnic.

### ***Changes in 2006-7***

An additional third level is being introduced. I hope to integrate characters from almost the beginning, to put increased emphasis on tonal and pronunciation practice and to integrate Chinese-speakers into the learning process, both inside and outside the classroom. To overcome students' initial reluctance to speak to natives, I have decided to organise trips to Valencia's Chinatown to introduce students to owners of establishments and figures in the Chinese community. This could lead to "tandem" language exchanges and visits by members of the Chinese community to our classes.