
Bilingual Degree Teachers' Beliefs: A Case Study in a Tertiary Setting

Las creencias del profesorado de Grado Bilingüe: un estudio de caso en el ámbito universitario

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Abstract

Content and Language Integrated Learning (CLIL) is becoming ever more prominent in Spain as universities start to implement bilingual degree itineraries in response to the challenges of an increasingly globalised world. Currently, research into teachers' beliefs in the field of bilingual education at university level is underrepresented and a fuller understanding of these beliefs could contribute towards the success of university CLIL programmes. This case study examines how the beliefs of five university lecturers involved in a bilingual project developed over the course of a two and a half year teacher training programme focusing on CLIL.

Keywords:

CLIL, bilingual education, teachers' beliefs, teacher training.

Resumen

El aprendizaje integrado de contenidos y lengua extranjera (AICLE) es cada vez más importante en España ya que las universidades empiezan a aplicar los grados de itinerario bilingües en respuesta a los desafíos de un mundo cada vez más globalizado. Actualmente, la investigación sobre las creencias de los profesores en el campo de la educación bilingüe a nivel universitario es escasa y una comprensión más completa de estas creencias puede contribuir al éxito de los programas universitarios de AICLE. Este estudio de casos examina cómo se desarrollaron las creencias de cinco profesores universitarios involucrados en un proyecto bilingüe en el transcurso de un programa de formación de profesorado centrado en AICLE.

Palabras clave:

AICLE, educación bilingüe, creencias del profesorado, formación del profesorado.

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1. Introducción

Universities in Spain are starting to implement bilingual degree itineraries in which English is used as a vehicular language for the teaching of some subjects. This is a response to the challenges of an increasingly globalised world in which there is greater student mobility and a greater need to be able to operate between cultures in more than one language. As yet, however, there is no consensus amongst universities on how to implement a CLIL approach and no broad agreement about what CLIL means with reference to tertiary level (Vilkancienė 2011). As a consequence each university tends to develop a different model. The situation is particularly heterogeneous given that Spanish universities enjoy a high level of autonomy when designing their degree programmes (Dafouz & Llinares 2008). There is, however, currently a less than ample body of research on CLIL at tertiary level (Costa & Coleman 2010; Ruiz & Fortanet 2009; Vallbona & Khan 2012). The present study responds to this focusing on teachers' perceptions and training in the context of CLIL at university.

The success of any educational innovation is dependent on many factors and not least of these is the educators themselves charged with applying the changes in practice. This study focuses on five lecturers at the *Escuela Universitaria Cardenal Cisneros* teacher training college in Alcalá de Henares, Spain. In 2009 they volunteered to participate in a teacher development programme of language and methodology training which would be designed to prepare them for the challenges of teaching their subjects through English using a CLIL approach. This would imply a significant undertaking on their part as they repositioned themselves as content and language teachers rather than content teachers only. As subject experts, it was assumed that their initial attitudes and beliefs regarding bilingual education would be founded on received wisdom and the restricted knowledge of the uninitiated rather than on an informed and reasoned view. This study was conceived to examine if and how the participants' beliefs would develop and change over the course of a two and a half year teacher development programme focusing on CLIL. The assumption was that their knowledge of CLIL would naturally increase, but what was less clear was whether or not their beliefs would be influenced and if so, how.

In addition to a relative shortage of research related to CLIL at tertiary level, research into teachers' beliefs in the field of bilingual education is similarly underrepresented and «further studies are needed to investigate bilingual education teacher beliefs» (Peralta & King 2011). A study then of teachers' beliefs in the context of the implementation of a CLIL programme at a Spanish university is both timely and relevant. Beliefs exert an important influence on teachers' methods, actions and behaviour (see, for example, Pajares 1992). A fuller

understanding of these beliefs could provide insights into what is required to give university CLIL programmes a greater chance of success.

2. Teachers' Beliefs

The concept of teachers' beliefs defies easy definition. Pajares (1992: 309) highlights the semantic problem and lack of consensus regarding terminology used found in literature related to the topic. He suggests, however, that the confusion lies fundamentally in the distinction between beliefs and knowledge and that it is difficult to identify exactly where knowledge ends and belief begins. In a wide-ranging review of publications related to beliefs, Pajares (1992) finds four common characteristics associated with beliefs, all of which seem to point towards beliefs being inherently subjective and unreliable. Firstly, the characteristic of *existential presumption* results in beliefs being formed by chance experiences or successions of events, taken for granted and resistant to persuasion or logical counter-argument. Secondly, the characteristic of *alternativity* is the result of individuals being able to construct a situation based on beliefs that runs contrary to reality. Thirdly, the characteristic of *affective and evaluative loading* means that beliefs operate independently of the cognition associated with objective knowledge. Finally, the characteristic *episodic structure* of beliefs means that they are constructed by and stored as a series of snapshots of key episodes or events, whereas knowledge is semantically stored. To completely separate beliefs from knowledge, however, seems impossible. Binary oppositions are too strong to define two related concepts which are so inextricably linked, but it seems reasonable to suggest that knowledge tends towards being objective and cognitive, beliefs towards being affective and evaluative. Pajares concedes that «the educational community has been unable to adopt a specific working definition» (1992: 313) to distinguish knowledge from belief, even though it is a common distinction. Rokeach (1968; cited in Pajares 1992) for example sees belief as a kind of knowledge which has both a cognitive and an affective component.

Even if beliefs can be satisfactorily defined, the issue of how they are formed – which is also complex issue – remains. A peculiarity of the teaching profession, in contrast with other careers, is that teachers do not start out as complete novices by virtue of the fact that they have already experienced education as learners, as Pena and Porto (2008) point out. Teachers bring with them ideas about teaching and learning the first time that they set foot in a classroom in the role of teacher that they started to formulate, however subconsciously, as children. As a consequence, such ideas may be deep-seated, difficult to change and have a significant effect on how they teach. The same would certainly not be true of surgeons, lawyers or pilots who are unlikely to have ingrained beliefs about how to carry out their work.

In line with Vygotskian theories of the construction of knowledge, Bustos Flores (2001: 252) asserts that «our quintessential ideas, beliefs, and conceptualisations are formulated from experiences we have had within a sociocultural context. For example, our beliefs about the world are given to us through our familial and educational experiences». The same can be said of an individual's beliefs regarding education. A person's beliefs as far as education is concerned are related to how that person was taught; our perception of education is the one handed down to us by the education we received and the attitudes towards education of the society in question. As Bustos Flores puts it, «in essence, the social structure becomes the mechanism for modelling expectations and standards of the norms of a given community or society» (2001: 252).

Pajares (1992) explains that cultural transmission can be divided into three components; education, schooling and enculturation. Education and schooling can be characterised as deliberate and intentional. The former can be either formal or informal and its intention is to condition behaviour according to the requirements of the given culture. The latter takes place outside the home and is the process of teaching and learning. In contrast, enculturation is incidental and is the result of the assimilation of a society's cultural elements through observation of and participation within that culture. As individuals we are all susceptible to cultural transmission. Teachers and their beliefs are therefore heavily influenced by the process of cultural transmission. Teachers are products of both the educational system and the society in which they themselves were raised, with its attitudes towards and expectations of education.

Greeno (1989) argued that teachers have implicit epistemological beliefs; that what a teacher thinks about the nature and origin of knowledge and learning influence their view of themselves and others as learners (cited in Bustos Flores 2001). Bustos Flores offers a refinement of Schommer's influential (1990) framework of five dimensions of epistemological beliefs by adding a sixth (cited in Bustos Flores 2000: 2):

The *certainty of knowledge acquisition* is dependent on whether knowledge is seen as from either a duality or a relative perspective. The *control of knowledge acquisition* is defined as the beliefs of learning as either being perceived from an incremental or an entity perspective. The *source of knowledge acquisition* is the belief that knowledge is either acquired from experts or is socially constructed. The *speed of knowledge acquisition* is defined relative to the predetermined amount of time required for learning. Depending on how the *structure of knowledge acquisition* is perceived, learning is believed to be simple or complex. The *interaction of knowledge acquisition* can be defined as the individual's beliefs regarding the interaction between language, culture and thought.

Clearly a teacher's individual stance on each of these underlying epistemological beliefs will have a profound effect on his or her teaching. It might be said that a teacher's teaching style is the product of a combination of beliefs and knowledge which are fused and put into practice. Bustos Flores (2001: 254) speculates that «in all likelihood, beliefs about how learning occurs modulate teachers' approaches. Therefore, it is proposed that these epistemological beliefs become translated into observable teaching behaviour or teaching style.» To this we can add that we are interested in what teachers beliefs are in relation to not only knowledge and learning, but also to teaching and learners themselves.

A fundamental question then is: can teachers' beliefs, once crystallised, be subject to change? They are rooted in personal experience, but may be modified over time with exposure to training or to new experiences which serve to challenge them. Richardson (1998) argues that certain catalysts and certain conditions can facilitate and bring about both minor and major changes. Two contrasting models of teacher development reveal very different results. The first, the training model, can be seen in Richardson's (1998) terms as a 'deficit model'. This is likely to have been imposed from above, starting from the premise that something is not working, is missing, or needs to be updated or improved. The assumption is that there are desired behaviours or techniques and teachers can learn or be trained to replicate them in their classrooms. This model has clear objectives and outcomes. Clearly, if this need is not perceived by teachers beforehand, enthusiasm for such staff development may well be low. Meyer (1988), in a study of reading development programmes, provides evidence that such staff development has a mere 15% success rate (cited in Richardson 1998). Richardson also cites evidence that momentum is lost in longer term staff development programmes and the implementation of desired behaviours decreases over time. This suggests that teachers tend to revert to doing things the way they did before if it was not they who initiated change.

Bustos Flores (2001: 255) suggests that:

encouraging teachers to examine their beliefs may assist [...] reflective practices. When teachers engage in critical reflection, they gain insights that may assist their development as effective [teachers] ... Gallimore and Tharpe (1990) asserted that teachers, like all learners, have their own zone of proximal professional development (ZPD).

The second model then is a reflective, collaborative model, which reports a greater probability of achieving lasting change. This differs from the deficit training model in that there are no pre-conceived objectives, outcomes or desirable behaviours. Teachers are encouraged to explore their own practices and come to personal decisions on aspects

and direction for change. By assessing personal goals, results and beliefs, teachers are involved in an on-going process of development and change and it is hoped that they will continue beyond the timeframe of the original programme. In one such programme Richardson (1998: 6) reported that teachers continued to reflect on their practice and experiment thoughtfully to the point where they «had become confident in their decision-making abilities... and felt empowered to make deliberate and thoughtful changes in their classrooms».

A complementary view is offered by Guskey (2002) who argues that professional development leaders labour under the misconception that a change in teachers' beliefs precedes a change in their classroom behaviours and practice. In typical teacher development scenarios, externally imposed programmes, or at least programmes initiated from above by management, are designed to 'sell' to teachers a new belief that, when taken on board, will lead to a change in practice. Guskey argues that in reality, the inverse is true and that the process moves from stages of teacher cynicism to teacher scepticism and only if new practices are deemed by the teacher to be valid based on their own experience will a change in belief be brought about. Guskey shares Richardson's positive view that teachers are motivated and convinced by an improvement in their students' learning when it comes to making changes. Guskey (2002: 384) is convinced that experienced teachers «seldom become committed to a new instructional approach or innovation until they have seen it work in their classroom with their students.»

There is an abundance of research and literature on the nature of teachers' beliefs, the origin of teachers' beliefs, how training can change those beliefs and how all of these elements can influence what teachers do in the classroom. In contrast, little research has been dedicated specifically to teachers' beliefs and practice as they relate to teachers in bilingual programmes (Peralta & King 2011). Nevertheless, some research does exist which has shed light on the topic in the Spanish university context. In a study of lecturers and students' perceptions of a CLIL approach in two Spanish universities Dafouz et al. (2007) highlight four revealing conclusions regarding teachers' beliefs. They found that teachers perceived a need for teaching materials to be adapted, the rhythm of classes to be slowed down and for content to be slightly reduced when teaching through a foreign language. Interestingly, the teachers felt that a change in assessment practices was not necessary, something which the authors insist needs further research.

In a study of English-medium instruction in a Basque university Doiz, Lasagabaster & Sierra (2011) report several interesting findings regarding teachers' attitudes towards the multilingual programme. Participating teachers point to the fact that teaching through

English requires a greater effort on their part and that this made some other lecturers loathe to participate in the English-medium programme. In terms of pedagogical implications, teachers reported numerous benefits, amongst them that their own teaching had improved, that it is easier to find specialised materials in English, that students who had chosen to study subjects in English were more motivated and that class sizes were smaller. Whilst they believed that these factors went some way towards compensating for a linguistic deficit, they did however continue to feel that a poor level of English language proficiency amongst students had a detrimental effect on their participation and academic performance. On the whole, teachers displayed a positive attitude towards CLIL, but felt that further research is needed into the effect on content learning of English-medium instruction.

3. The Study

3.1 Context

The focus of this study is university lecturers responsible for teaching their students through a foreign language, in this case English. They are the main protagonists, but the educational institution itself and the students who are studying for their degrees also form an important part of the overall picture.

The Escuela Universitaria Cardenal Cisneros is a private tertiary college affiliated with the public institution of the Universidad de Alcalá. It offers teacher training degrees with specialities in Infant Education, Primary Education and Social Education. Since the academic year 2010-11, students have had the possibility of studying for a degree in Infant or Primary Education in a bilingual programme. Students who have opted to study their degree in the bilingual programme first had to complete an initial level test aimed at ascertaining their level of English. A B1 level according to the Common European Framework of Reference for Languages (CEFR) was established as the desired minimum.

Lecturers either hold a Ph.D. in their area of expertise or are in the process of gaining their Ph.D. There are currently fifteen lecturers involved in the bilingual project to some degree or in some capacity. At the time of writing this research (June 2012) five of the lecturers had started teaching their subjects in English. Eight of the lecturers have been involved in the bilingual project since its inception and have received all of the training provided. It is on five of those lecturers that this study focuses, two of whom have started teaching in English, three who are yet to do so (Figure 1).

	Years in the College	CEFR in English	Background	Currently teaching through English	Further information
Lecturer 1	19	B2	Working towards Ph.D. in Education	–	Will start teaching in English in academic year 2012-13.
Lecturer 2	23	C1	Ph.D. in Fine Arts / M.A. in Aesthetics and the Theory of Art	–	Will start teaching in English in 2012-13. Given workshops in English on Ministry of Education courses for primary teachers. Involved in research projects related to bilingual education.
Lecturer 3	5	C2	Working towards Ph.D. in Psychology	✓	Teaching classes in English for the second academic year, a total of five subjects.
Lecturer 4	8	C1	Ph.D. in Psychopedagogy	✓	Teaching classes in English for the second academic year, a total of four subjects.
Lecturer 5	17	C1	Ph.D. in Art History / M.A. in Cultural Management	–	Will start teaching in English in 2012-13. Given workshops in English on MEC courses for primary teachers. Involved in research projects related to bilingual education.

Figure 1. A brief profile of the participants of the study.

The Escuela Universitaria Cardenal Cisneros Bilingual Project was started in 2009. The first bilingual Teacher Training degrees were offered and implemented in the academic year 2010-11. Teaching through English in the bilingual programme follows a content and language integrated learning (CLIL) approach. Lecturers involved in the project initially volunteered to take part. They have received language training with a view to developing their language proficiency. Methodological training has been extensive and ongoing. In total, lecturers have participated in more than two hundred hours of CLIL training on seven courses over a period of more than two years between October 2009 and January 2012 (Figure 2).

Title	Duration	Description / Contents
Introduction to Bilingual Education	40 hrs	cognitive theories of bilingualism, models of bilingual education, challenges of teaching through a foreign language
Content and Language Integrated Learning	52.5 hrs	CLIL resources and materials, lesson plan design for CLIL, assessment of language and content, formative and summative assessment
CLIL Syllabus Design	6 hrs	task design, scaffolding students input and output, promoting higher order thinking skills, developing intercultural competence
Literacy in the Bilingual Classroom	9 hrs	communication and collaboration in the bilingual classroom, the use of authentic texts
Classroom English	12 hrs	functional language in the classroom, creating a communicative classroom
CLIL	50 hrs	CLIL frameworks, task, activity, unit and syllabus design, discourse issues in CLIL
Look back and move on – teaching in the bilingual degrees	1 hr	teacher development session in which experiences, concerns and difficulties were shared and reflected upon
CLIL Teacher Training at Higher Education	42 hrs	the analysis and creation of materials, assessment of and for learning, working on high and low order thinking skills, making teaching brain-compatible

Figure 2: A brief outline of training received by the participants of the study.

3.2 Data Collection and Analysis

The aim of this case study was to identify how teachers' attitudes and beliefs towards bilingual education might have changed in the light of an ongoing teacher development programme designed to prepare them for the challenges of teaching content subjects through English in a tertiary setting. In order to achieve this, qualitative rather than quantitative research method used was a logical choice because it could provide more valid data from which to infer much more about the phenomenon being researched. The research was longitudinal, with data being collected over a two and a half year period. A change in

attitudes and beliefs is unlikely to occur in the short term without a due process of experimentation and reflection, so the more extended timeframe was deemed necessary in order to produce observable changes of worth.

In order to collect data, two instruments were used, an initial questionnaire and a follow-up questionnaire. Data was first gathered by means of a short, open questionnaire administered to eight initial participants by e-mail in September 2009, before the teacher development began. A second questionnaire containing five of the original six questions, plus a modified sixth question was administered in March 2012 to the five participants who had both completed the original questionnaires and remained in the programme at that point. By using essentially the same questionnaire with a gap in time of a little over two years, a neat and potentially very revealing comparison was possible. The decision to use short questionnaires with open questions was based on a desire to use time efficiently and to obtain more extended qualitative data than multiple choice, Likert scale or semantic differential scale questionnaires could provide. Open questions allow greater freedom of expression and enable the collection of richer responses than quantitative questionnaires can yield. The questionnaires were written in Spanish, the mother tongue of the participants, with a view to enabling them to express themselves with as much confidence and clarity as possible. Selected responses included in this study have, however, been translated into English.

The six questions in the first questionnaire were designed to gain information about the participants' previous knowledge of bilingual education, their concerns and preconceptions regarding bilingual education and their perceived needs and expectations prior to embarking upon a period of training. The second questionnaire contained the same first five questions, but the sixth question was modified so that participants could express whether or not they felt the extensive training they had received was sufficient or whether there was still a need for further training. The questionnaires did not pose specific questions about beliefs; they did not explicitly solicit responses about the beliefs of the participants. By not explicitly asking for expressions of underlying epistemological beliefs, the respondents were not 'on their guard' and the factor of responding with what they thought they ought to respond was reduced. Any conclusions regarding beliefs in this study are based then on what can be inferred from their responses often based on what was unconsciously revealing semantically.

The initial questionnaires were analysed on a question by question basis for both similarities and differences amongst participants' responses. Key words and key ideas were cross-referenced in order that generalisations could be made where possible and disparity amongst responses highlighted where relevant. The follow-up questionnaires were analysed

in a similar way. In addition, however, responses were also cross-referenced with the general observations made from the initial questionnaires in order to look for emerging patterns of change. An additional factor to be taken into account was that two of the five lecturers had begun teaching in English by the time the second questionnaire was administered whereas the other three had not. Analysis also focused on instances in which the two practising bilingual lecturers' responses coincided with each other but differed from the other lecturers' responses, as this could potentially be significant.

3.3 Findings

3.3.1 First Questionnaire – September 2009

Based on the responses to question one of the initial questionnaire (*How would you define bilingual education? What does it consist of?*) it is possible to make several generalisations. Firstly, and as might have been anticipated, three of the five respondents (L1, L4, L5) conceived bilingual education as being that in which two languages are used indistinctly in order to teach subjects. Respondent two characterised it as the teaching of subjects other than English language in English. Respondent one, in addition to mentioning the presence of two languages, also defines a bilingual model as educating with two different cultural contexts. All five respondents coincide in highlighting the presence of two languages with only one considering the cultural element. Secondly, four of the five responses (L2, L3, L4, L5) include the word «contents», which suggests that the participants are in agreement as to the importance of content objectives as well as language objectives. Thirdly, the participants' choice of words hints at a view of the lecturer as someone who transmits a body of knowledge to students. The expressions «impart», «teach» and «the transmission of contents» are used (L2, L3, L5), which suggest a teacher-centered view, whereas only one of the five lecturers (L1) used «teach and learn», which suggests at least a joint effort between teacher and student.

Answers to question two (*In your opinion, what is the objective of this type of teaching?*) are even more uniform and reveal an almost unanimous view that the objectives of bilingual education are to improve the command of a non-native language. Respondents say that «it's about learning a language other than the mother tongue» (L1), that the objective is to «increase students' knowledge of English» (L2), to «acquire a working command of the two languages» (L4), or to «favour the acquisition of a second language» (L5). Three of the five (L1, L3, L5) do however stress that it is subject contents which are being taught through the vehicular language, giving importance to contents while expressing the learning of another language as the principle motivating factor behind a bilingual model.

Responses to the first two questions display some consistent ideas amongst this group of lecturers. They see that two languages are present in bilingual education and students' increased command of the second language is its *raison d'être*. There also seems to be an underlying assumption that knowledge and contents are transmitted from teacher to learner and that in a bilingual model this will happen in a language other than the students' mother tongue. As a gauge of the participants' prior knowledge of bilingual education, this is interesting in that it broadly follows Van de Craen's (2007) overview of how the aims of CLIL programmes are often seen throughout Europe. Indeed, this promotion of language proficiency through an economical use of time which combines subject and language teaching is a key objective of the European Commission in its action plan (2003). By comparing the respondents' answers to Do Coyle's 4 Cs framework for CLIL (Coyle 2002), it is clear that the notions of content and communication (or language) are given importance, but culture is absent in all but one lecturer's answers (L1) and cognition is wholly absent. This suggests that to the uninitiated lecturers the latter two elements are less obvious components of bilingual education.

The third question (*Do you believe it is possible to learn the same contents in a foreign language as in the mother tongue? Why?*) was intended to canvass the participants' thoughts towards a commonplace concern among many of those with vested interests in bilingual education: the ability to learn the same contents in a foreign language as in the mother tongue. None of the participants were entirely convinced that this is possible. Reservations were varied, but all constituted a lack of certainty. One participant (L5) drew on his experience as a father of children attending a bilingual school. He viewed his children's linguistic competence very positively as a result of the education they were receiving, but was less certain of their subject knowledge. Three of the lecturers (L2, L3, L4) felt that learning the same contents was achievable, but only if the level of the students in the foreign language was sufficiently high not to be of any impediment. Another lecturer (L1) raised doubts about how students with special educational needs would cope with the additional obstacle that learning through a foreign language would create.

Question four (*Do you think teaching through another language requires a change in methodology? If so, what does this change consist of and why is it necessary?*) yielded some interesting responses. Four of the five (L1, L2, L3, L4) were in no doubt that such a change would be necessary. The fifth (L5) felt that no change would be necessary as long as both teacher and student had a high level command of the vehicular language, but would be necessary if that were not the case. The participants were less clear, however, on what the necessary changes would consist of. One lecturer (L4) believed that the traditional methods associated with the transmission model of teaching would need to be abandoned in favour of a more interactive and participative methodology. Another (L3) expressed in

general terms the need for «certain specific techniques which enable the student to understand concepts at the same time as improving the language in», alluding to the integration of content and language. A further idea expressed by one participant (L1) was of a wholesale overhaul of procedures, objectives, materials and teaching style, but they were not specific on the details of this. Another (L2) said that they had heard of CLIL, but was unsure of what it consisted. These responses seem to be to some degree at odds with those given to question one in which a teacher-centred transmission model of teaching was reflected. They hint at a feeling that that model will not be entirely adequate although they were understandably vague on the details at that early stage.

The fifth question (*Is there any aspect of bilingual teaching which worries you?*) gave respondents freedom to express any other concerns they might have about bilingual education. Here there were three main concerns. The first, expressed by two of the lecturers (L1, L4), was their own level of English and ability to carry out lessons in English. Two other lecturers (L2, L5) alluded to this less explicitly in terms of the extra time and effort they would need to invest in order to teach, in this case, in English. Their comments also lead on to the second worry that dedicating more time to linguistic aspects may detract from the subject contents. They repeated ideas from question three about the possible reduction or limiting of contents as a side-effect of teaching through a foreign language, which demonstrates the importance they place upon this concern. One lecturer (L3) was worried by the third issue that «giving the subject in English would affect fluidity and slow down the rhythm of lessons too much.» Of course, if contents take longer to teach, then the logical extension of this idea is that they would need to be reduced to fit the timeframe, which is related to concern number two.

Questions three to five then provided some general insights into the participants' concerns regarding bilingual education and the implications of these in their future daily work as lecturers in a bilingual programme. At this early stage, their thoughts are similar to those of university lecturers already teaching through English reported in Dafouz et al. (2007) and Doiz, Lasagabaster & Sierra (2011). They saw difficulties in being able to cover contents in English that they would otherwise cover in their native Spanish and the effect this might have on their students' learning. They seemed loathe to reduce contents, but were uncertain as to whether or not this was avoidable. In some cases they were worried about their own level of English and ability to teach in English, and were also apprehensive about how much effort would be required to prepare and deliver classes in the second language. They seemed aware of the need for a change in methodology, but generally not of the specific changes required. Moreover, and rather interestingly, the choice of words used by the respondents echoed that of earlier questions with «give», «teach» and «impart» again suggesting a rather teacher-centred model.

In question six (*What do you expect of the training you will receive regarding bilingual teaching? What questions or needs would you like to have resolved?*) most of the respondents made reference to the dual aim of the training they were about to receive. Three of them referred to discovering new «methods» or «methodology» and one referred to this as a new «approach». The second element of the dual aim is the improvement of the lecturers' language level in English. Both elements are very much in line with the concerns and needs expressed in earlier questions. One participant saw the training not as something to be received, but as an opportunity to «share ideas, thoughts, reasons, methodologies and emotions» (L1), perhaps anticipating a further need in the future for the lecturers to collaborate more closely in the bilingual project than would otherwise be the case.

3.3.2 Second Questionnaire – March 2012

In question one (*How would you define bilingual education? What does it consist of?*) slight variations on one broad idea are represented. One of the participants (L5) continues to define bilingual education as that in which various languages are used at the same time. The other four (L1, L2, L3, L4), however, largely coincide that bilingual education consists of some teaching and learning happening in a language other than the mother tongue. The two teachers who have already embarked upon teaching in English further qualify this with assertions that the foreign language should not be an obstacle to learning or limit learning in any way (L3, L4). One of them also specifies that key features are active, participative lessons in which communication is prized. Two of the other lecturers mention improving the level of the second language in students and one characterises this as facilitating the students' comprehension of contents.

Answers to question two (*In your opinion, what is the objective of this type of teaching?*) generally place at least as much emphasis on the subject aims as the linguistic ones, in stark contrast to the September 2009 questionnaire. The most unequivocal example of this is from one of the practising bilingual lecturers (L4) who said that «the ultimate aim must be to acquire the same knowledge as in a subject taught in Spanish, but improving the knowledge of the foreign language». Here it is clear that in the opinion of the respondent the language aim is an added value which is subservient to the content aim. This is echoed by one participant (L2) who said that the objective is «that the student acquire linguistic and communicative competences in the second language at the same time as acquiring knowledge of the subject in question» and another who defined the objective as «to learn certain curriculum contents through the use of a language other than the mother tongue» (L5). In addition, two respondents (L1, L5) mentioned cultural or intercultural objectives. Language acquisition was no longer pushed to the fore as the main or only objective of

bilingual education in the opinion of the participants. Their new definitions were more multi-dimensional and emphasised content over language, which is sometimes now referred to as communication, and included a cultural element. Three of the four Cs are given some prominence then, with the fourth, cognition, still somewhat conspicuous by its absence.

In the September 2009 questionnaire, without exception the lecturers had doubts in question three (*Do you believe it is possible to learn the same contents in a foreign language as in the mother tongue? Why?*) as to whether it would be possible to learn the same contents through a foreign language as in the mother tongue. In the follow-up questionnaire the shift is dramatic and they were unanimous in saying yes, it is possible. One participant (L5) said, «Yes. It must be done because the goal is not to learn another language but to learn the same through the use of another language.» This was the same participant who, in questionnaire one, was less than convinced by his experience as the parent of children in a bilingual school. He does not elaborate and explain why he is now so sure, however. One participant (L3) suggested it was difficult yet achievable and that careful planning was a key consideration «in order not to forget important contents, but rather selecting and prioritising given that contents are sometimes excessive or unnecessary.» This seems to suggest a more competence-based view of education as opposed to a content-based view. This is an idea expressed more explicitly by one respondent (L4) that learning is «the development of a series of competences linked to contents» and that these «can be transferred from one language to another». Two others (L1, L2) affirm that an appropriate and efficient methodology can successfully combat the deficits, limitations and barriers inherent in teaching and learning through a second language.

When answering the first questionnaire the group of lecturers were sure that a change in methodology was required in order to teach in a second language. They were, however, very vague on the details of this and what such a change would entail. In their responses to question four (*Do you think teaching through another language requires a change in methodology? If so, what does this change consist of and why is it necessary?*) in the March 2012 questionnaire they were very much more specific in their answers and tended to coincide on the major features of the required methodology. The most consistently expressed opinion is that a traditional transition model of lecture-style classes is inadequate and that a move away from this is essential. Two respondents (L2, L4) express this explicitly, but most allude to it in their choice of words. The most commonly repeated adjectives used to describe the methodology throughout the five questionnaires are «active» and «participative», used in four of the five. One (L2) said that learning would need to be «not so teacher-centred and much more learner-centred». Three of the five (L2, L3, L4) also mention scaffolding, with one adding that this is necessary for both input and students'

output. Indeed, in the words of another participant (L5), opportunities for student output are considered important in this methodology in order to «potentiate communicative abilities».

Two of the lecturers answered at length and described the methodology as they saw it in some detail. In addition to an active and participative methodology in which scaffolding is vital, one of them (L4) mentioned that learning must also be individualised, that the role of the teacher was as facilitator or guide, and that cooperative learning should be a *modus operandi*. She defined a methodology for bilingual education as containing strong elements of all good teaching practice which ought to be present in teaching in the mother tongue as well. The other lecturer (L2) highlighted the need for teachers to rely less on verbal language and more on visual support and multi-modal input. He also emphasised the importance of taking into account and catering for different learner styles and multiple intelligences, and establishing «ways of assessing which allow the student to show what they have learned without the language being a barrier to expressing it, etc». Both of the lecturers have had close contact with CLIL in action. L4 is one of the two practising lecturers, while L2 is involved in a research project designing and helping to deliver CLIL activities for art education in a primary school. This close experience with implementing CLIL may contribute to the confidence and specificity with which they respond to the question on methodology.

A dramatic shift can also be seen between answers supplied in question five (*Is there any aspect of bilingual teaching which worries you?*) of the September 2009 and March 2012 questionnaires. In the first one, the lecturers focused very much on their own situation and worries about themselves. They were concerned about their own level of English, about the extra work teaching in English would entail and the reduction of contents. In the March 2012 questionnaire, however, they seem to have interpreted the same question very differently. Three of the five appear to believe in the potential of a CLIL approach, but are concerned, not for themselves, but for how it will be put into practice in schools. For one (L1), «without modifications, bilingual projects will become merely doing the same thing but in another language». Likewise, another (L2) commented that «the implementation in schools worries me. If it is not done in an appropriate manner, it could generate a series of extra problems for less advantaged students». A third (L3) said that «it would worry me that it's not done well and consequently students miss out on contents».

The other two lecturers continue to focus on their own circumstances. One (L5) has yet to start teaching in English and remains concerned about what will happen if the change in methodology is not sufficient for students to understand what they need to. The other (L4) has been teaching in English and says that she is not worried at the moment. She said that she has introduced many changes in her lessons, that the great majority of students had responded well to the extra demands and that «students learn and develop the same

competences as in Spanish». She makes reference to having overcome her fears and insecurities and seems content with the development of her classes in the bilingual programme.

After an extended period of training spanning more than two years, it is to be expected that what the lecturers perceive as their continuing training needs are very different from their initial needs. In question six of the March 2012 questionnaire (*Do you believe you need further training? What further training would you like to receive regarding bilingual teaching? What questions or needs would you like to have resolved?*) these needs fell into four main categories. The first of these was the need for specific training, teaching resources, activities or strategies for individual subject areas that lecturers teach, as mentioned by two lecturers (L3, L5). They felt that, in the words of one (L3), they have an idea of what CLIL involves and general ideas and models, but need a subject-specific range of activities. Two other lecturers (L1, L4) would like to continue developing their English language skills, although one (L4) refers to this as «communicative strategies» rather than simply language level. A further aspect which was valued as a very positive part of the experience was that of sharing experiences with colleagues. Two participants (L1, L4) saw the opportunity to do this as being more important than further methodological training. The last suggestion by one respondent (L2) was rather than receive further training to undertake action research both with his own students and in bilingual schools.

3.4 Discussion

It is possible to make several inferences regarding the general beliefs of the five lecturers from their responses contained in the September 2009 questionnaire. One of the first things that stood out was that, both explicitly and implicitly through the language they used to talk about bilingual education, or in fact education in general, a reliance on a transmission model of education was strongly suggested. This is an important indicator of epistemological beliefs. If a teacher sees their role as transmitting contents or knowledge to students, then this must be based on the notion of *the source of knowledge acquisition* coming from experts as opposed to being socially constructed, in Bustos Flores' (2000) terms. Likewise, in terms of *the control of knowledge acquisition*, this is indicative of an epistemological view of knowledge as an entity, something which can be transferred from one to another. An important question to consider is from where these beliefs originate.

The five lecturers teach in a teacher training college. Not only are they aware of the theories of education by Bruner, Piaget and Vygotsky, constructivism, cooperative and collaborative learning and so on, but they also teach them in their lessons. This would seem then to be

very much at odds with the beliefs inferred from their responses in the initial questionnaire. The answer to this conundrum can perhaps be found in Bustos Flores' (2001) ideas and Pajares' (1992) ideas. Beliefs are strongly influenced by personal experience. As products of a university system in which the transmission model of lectures was the dominant or perhaps only teaching mode, it makes sense that the participants in this case study would draw upon this experience. The way they were taught is a powerful influence on the way they teach even though it may contradict what they know in theory to be optimal teaching practice. In some of their answers they imply that university is unlike school because of the complexity of abstract ideas and concepts. Seemingly bilingual education would be fine for children and adolescents, but when they get to university the content is so complex that it needs an expert to explain it and both lecturer and student need a sufficient command of the language in order to guarantee understanding. This is evidenced in comments at the beginning of the process in the September 2009 questionnaire such as, «there will be concepts which can't be worked the same» (L2), or that a change in language «can cause difficulties or limit the acquisition of the same contents» (L4). At that stage they articulated the worry that the teacher «would not be able to give all the same type of contents that they consider necessary to the same level or with such complexity due to the language» (L2), and that «teachers have to make an extra effort so that students understand them» (L5).

Given their background in education theory, it is doubtful that the lecturers would have advocated a transmission model of teaching for primary schools, so why would they believe it appropriate for tertiary settings? It is perhaps surprising that at the beginning of this process they did appear to have considered it apt for university, at least in a non-bilingual setting. Two further reasons for this can be suggested, both related to what Pajares (1992) had to say about cultural transmission through education, schooling and enculturation. Firstly, related to the notion of schooling, it is curious that all over the world school teachers are usually required to undergo an extensive period of training whereas university lecturers are often exempt from such a requirement. In the majority of cases, university lecturers have not been taught how to teach and this case is no exception. The evaluation procedure of ACAP¹ for teachers at Universities in the Autonomous Community of Madrid, for example, includes in its application form sections related to research, publications, conference papers, academic qualifications and teaching experience. It also has sections for other qualifications, courses or training, but there is no explicit mention of any specific teaching qualification. University lecturers climb the career ladder on the basis of publications whilst teaching improvement and innovation is not considered at all (Fortanet 2008).

¹ Agencia de Calidad, Acreditación y Prospectiva de las Universidades de Madrid.

What lecturers tend to know and believe about teaching at university seems not to be the result of structured, intentional training. It is largely the result of their own experience and enculturation. The transmission model of lecture-style lessons, the «traditional methods characterised by being very one-directional, teacher-student», in the words of one of the participants (L4), is what both lecturers and students expect to see at university. The situation is changing with the Bologna process which stipulates that group sizes are varied with some lessons being delivered in large groups, others in smaller seminar groups. Even so, the division of contact time is still heavily weighted towards whole group «theoretical» sessions. A typical subject with 6 ECTS credits has thirty hours of whole group theory lessons, fifteen hours of half group practical lessons and three hours of small group seminars. Spaces are being adapted for this new type of degree, but the predominant learning space in public universities is still the lecture theatre, set up to fit in as many as 200 students often with a stage at the front so that the lecturer can deliver the lesson. It is no wonder that this mode of teaching persists.

With regards to the lecturers' specific beliefs about bilingual education at the beginning of the process, three main observations can be made based on the September 2009 questionnaire. The first of these is that the teaching and learning process will be automatically more difficult in a second language. The second, which is clearly closely related, is that it may be necessary, although undesirable, to reduce either the quantity or complexity of contents when teaching through another language. The third is that a change in methodology will be necessary, although there is less certainty about what that change would entail. These three main observations of teachers' ideas at the beginning of the process broadly coincide with the conclusions of Dafouz et al. (2007) of slowing down the rhythm of classes, reducing contents slightly and adapting materials. The origin of these beliefs is less clear. In part, they seem to conform to a common sense view that both learners and teachers having fewer linguistic resources at their disposal when using a foreign language will hinder learning. Consequently learning requires more effort and takes longer so, in the absence of extra time to devote to learning, contents must be reduced. These conditions, by logical extension, create a need for modification of the methodology employed or materials used.

In the case of the participants in this study, these common sense ideas are likely to be reinforced by enculturation. On both a professional and personal level, some of the lecturers have contact with stakeholders in the various bilingual projects in schools in the Autonomous Community of Madrid. They are to some degree exposed to the opinions of parents, teachers and even their own children involved in those projects. Attitudes towards the bilingual projects are undoubtedly mixed. The implementation rate has been very fast (see Llinares & Dafouz 2010), causing challenges and teething problems which affect

attitudes towards the projects from all quarters. There is evidence to suggest that a significant number of teachers involved in the programmes in schools are yet to really understand bilingual education after several years working within them and also cite a lack of resources and training (see for example Fernández & Halbach 2011). Dobson, Pérez & Johnstone (2010) in a British Council report also conclude that some teachers perceive the bilingual project to be inappropriate for those pupils judged to be academically weak or those having special educational needs. In the same report 24% of parents who responded felt that their child's overall progress was negatively affected by having to study through the medium of English. Although, of course, it cannot be assumed that the lecturers in this case study were aware of this research, they are likely to be exposed through society and the media to some of the ideas and reservations contained within. One lecturer (L5) mentions the example of his own children and another (L2) asserts that «the pledge for bilingualism is a political one». It is a current topic and everybody is exposed to the common concerns of the stakeholders: politicians, teachers, parents and pupils.

Analysis of the responses to the March 2012 questionnaire reveals marked differences when compared with the September 2009 questionnaires. The principal aim of the lecturers' extensive training period was to equip them with the knowledge, resources and techniques so that they would be better prepared to implement a CLIL approach to their teaching on a bilingual degree programme. New knowledge, however, seems to have caused a change in beliefs. The beliefs-knowledge distinction is a difficult one, as Pajares (1992) asserts. Nevertheless, what the lecturers learned about CLIL seems to have caused in them a shift in epistemological beliefs, at least as far as teaching at university is concerned. They saw the need for a move away from a lecturing style towards a learner-centred, active, participative methodology. In terms of a view of *the source of knowledge acquisition* and *the control of knowledge acquisition*, this is very significant and is indicative of a belief that knowledge is socially constructed and incremental rather than an entity acquired from experts. One case in particular gives a strong sense of what others also make implicit, that a change has occurred beyond only the domain of an approach to bilingual teaching. One of the practising lecturers (L4) states that «I have introduced many changes in my day-to-day teaching, both in the lessons I teach in English and those I teach in Spanish». This represents a new perspective on teaching and learning in a university context, not merely a new approach exclusive to teaching in another language.

A further trend worthy of mention is how the participants interpreted and responded to question five about aspects of bilingual education that worried them. The general move from being concerned about their own situation in the September 2009 questionnaire to later being concerned about how successfully bilingual education is being implemented in schools is significant. It suggests that they are no longer worried for themselves. As a result

of the training they have received, they believe and accept that with a CLIL approach bilingual education can be successful. They are perhaps aware, however, that it has taken them two years of training to come to that conclusion and feel sufficiently well equipped to be able to carry it out successfully themselves. They are also aware that many teachers involved in the bilingual schools have not had the same luxury and worry about the potentially negative effects of CLIL done poorly. Their responses show that they believe in CLIL, but believe less so in it being implemented effectively in schools.

This new stance is very different from their original one which can be seen in the September 2009 questionnaire. It is also reflected in how they now define bilingual education and perceive the objective of bilingual education. They no longer see the learning of English as the primary goal, but rather as an added value to be gained from the teaching of subject contents through English. They are almost unanimous in now believing that, contrary to their initial fear, content learning can be achieved without reduction. They see that the inherent obstacles in teaching through another language can be overcome with the application of a strong CLIL approach. Only one lecturer (L3) maintains the idea to a degree that contents might be reduced, but justifies this by saying that it is a question of prioritising and trimming what is superfluous. This in itself represents a change in the belief that contents must be somehow delivered to students and that the role of a subject is not only to learn contents, but also to develop the competences specific to it and applicable to the wider curriculum. Reducing contents here does not suggest a problem but an opportunity to streamline and optimise the use of time.

Whilst beliefs are difficult to divine and must be inferred from the participants' responses to questions, the questionnaires give a clearer idea of how their knowledge of bilingual education has evolved. A simple comparison of the number of words used to respond to the questions in the initial and final questionnaires suggests that they know a great deal more about bilingual education now, which is to be expected. All but one of the lecturers (L5) answered at greater length in the follow-up questionnaire, with the average words used increasing from 323 in the first and 459 in the second, an increase of over 40%. Noticeably their definitions of bilingual education and articulation of its aims are closer to the standard definitions of CLIL (see for example Ball 2009; Coyle, Hood & Marsh 2010; Mehisto, Marsh & Frigols 2008) in the March 2012 questionnaire than in the initial one. The most striking difference, however, is in their responses to the fifth question regarding the need for methodological change and of what that change would consist. Here they not only affirm that a change is necessary, but also enumerate key characteristics, displaying significantly greater knowledge. The sixth question is also very revealing in that three out of the five (L1, L2, L4) no longer feel the need for external training. They feel it would be more beneficial for them at this stage to have the opportunity to continue sharing their own ideas and

experiences with their colleagues or to undertake their own research. The other two (L3, L5) also express the feeling that they have a sufficient grounding in CLIL and only need specific ideas for their own particular subject areas.

The evidence provided by the two questionnaires suggests that over the course of the two years' of training in CLIL there has been a change in not only knowledge, but also beliefs amongst the participants. Given that both beliefs and teachers are seen as being highly resistant to change, how has this change been brought about? Several favourable conditions need to be in place in order for this to happen. Richardson (1998) argued that self-motivation is a prerequisite for change. In this case the lecturers all volunteered to participate in the bilingual programme and it was not something which was imposed upon them. Their motivation for this is not clear from their responses to the questionnaire, but it would be logical to suppose that it was for one or a combination of the reasons Guskey (2002) lists such as a desire to continue developing as educators, take on a new challenge, or increase professional satisfaction. As a starting point this was extremely positive. It must also be accepted that time is essential for lasting change to happen, and this would appear to be one of the strengths of this particular case. The first lecturer to start teaching in the bilingual programme began methodological training a year before she started to teach in English. The second had a year and a half and the other three will have been afforded between three and three and a half years before they start.

The period of teacher development undertaken by the participants conforms more to Richardson's (1998) reflective, collaborative model than to the contrasting deficit model. There was no initial assumption that something was wrong that needed to be fixed. The bilingual project was an opportunity for a new challenge, an innovation. The lecturers were required only to concede that they would need new tools with which to face a new educational context, not admit that what they were doing in their present context was in any way faulty. Psychologically this is quite different and is more likely to facilitate change. The participants have been provided with opportunities to collaborate, reflect upon their practices and share their ideas and experiences. It is noteworthy that in question six of the second questionnaire they express a desire to continue in this vein, reflecting, collaborating, as Richardson (1998) suggests, in an on-going process of development which extends beyond the original scope of the training.

As yet, only two of the participants have started teaching through English and as such are the only ones who have had the opportunity to experiment in their own lessons and reflect upon the results. This is an important element for change according to Guskey (2002), who asserts that teachers seldom become committed to a new approach until they have seen it work. This does not seem to be the case here, however. Certainly it is one of the lecturers

already teaching through English with a CLIL approach (L4) who appears to be most convinced when she states that her students in the bilingual programme are developing the competences as well as her students in the Spanish programme. Otherwise, it is difficult to distinguish between the participants and they all express commitment to the bilingual programme and a CLIL approach. Perhaps they believe in it precisely because they have not yet had the opportunity to experiment and finally confirm or refute their beliefs. Whether or not that will change remains to be seen and the implementation of CLIL will be the defining moment for them.

In spite of the evident strengths of the training programme, there is one area in which there seems to be no perceptible change in teachers' beliefs. This is the element of cognition in CLIL. Cognition is not mentioned by any of the lecturers in the September 2009 questionnaires, making it the only one of the four Cs (see Coyle 2002) not alluded to. Content, communication and culture are all mentioned in the March 2012 questionnaire too, but cognition still remains notably absent. Taking into account the extent of the training received and the prominence given to developing thinking skills, it is perhaps surprising that the lecturers considered knowledge and skills to be important, yet cognition did not even merit a mention. This is not to say necessarily that a change in beliefs about cognition has not taken place here, but there is no evidence of it in the data collected and analysed.

4. Conclusions

The original purpose of this study was not to assess the efficacy of the extended period of training in CLIL for the group of lecturers. Nevertheless, amongst other things, the data does provide insights into the success of the training programme. The participants have evolved in terms of their understanding of bilingual education, what it consists of and what its objectives are. They have also moved from being somewhat sceptical and concerned about several aspects of bilingual education, not least the need to reduce or simplify contents, to expressing belief in and commitment to CLIL, as long as it is done well. Their concern for the way CLIL is being implemented in schools suggests that they now feel well-equipped to deliver CLIL lessons in their own context, but feel less convinced that primary teachers have the same level of preparation.

In terms of increasing the lecturers' knowledge of the CLIL approach and providing them with the tools with which to teach through English on the bilingual degree programme the training period can be deemed an overall success. The increase in knowledge, however, has also been a catalyst for further, perhaps even more significant change. The attitudinal

change should not be underestimated. The lecturers show through their responses a very positive disposition towards CLIL. This may prove to be very important because they will be advocates for bilingual education by the example they give to their students on the bilingual degrees. Not only will they teach the theory and model it in practice, but they will also display their underlying attitudes towards bilingual education.

The final step, of which there is some evidence in this study, is of a change in beliefs about how knowledge is acquired resulting from an increase in knowledge and change in attitudes. Whilst this may seem a bold assertion, I would argue that it is not surprising given the circumstances of this specific case. First of all, very favourable conditions for teacher change were created. Lecturers volunteered for the programme and joined it as a result of some personal motivation rather than imposition from above. Furthermore, time has been on their side with a long and comprehensive training period. The lecturers have been given opportunities to reflect and collaborate, and, in two of the five cases, experiment and put into practice what they had learned.

Limitations of the study are those often inherent in qualitative research. It is clear that the sample size is small and the generalizability of the findings low. This is certainly a very idiosyncratic case study based on the responses of only five participants, but it may provide insights into similar cases. With an increase in Spanish universities offering a bilingual itinerary in their degree courses, this case will likely become one of many which share similar features. One of the strengths of such research is that it can be a good starting point from which to generate further lines of research or plans of action. Other universities are employing different models when implementing bilingual itineraries and preparing their teachers for its challenges, which would make comparative studies rather pertinent. In addition, an important area which certainly merits further research in the light of this study is that of teachers' beliefs with respect to cognition. The benefit to the development of thinking skills is the added value of CLIL and a powerful argument in favour of its adoption as an approach. CLIL will be a greater success at tertiary level if the benefits to cognition are recognised and potentiated.

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