Teacher training in Brazil: the challenges of international partnerships

Formação de professores no Brasil: os desafios de parcerias internacionais

Formación de docentes en Brasil: los desafíos de las alianzas internacionales

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Abstract

There has been an expansion of the internationalization of higher education in Brazil since 2009; this has been translated into programs funded by the federal government through the CAPES Foundation. The International Undergraduate Teaching Program encourages projects aimed at improving instruction and quality in initial teacher training, and promoting the exchange of licenciature students with undergraduate courses at the University of Coimbra, Portugal. There are obstacles that have to be overcome arising from incompatibilities with respect to the curriculum of training courses for teachers in Brazil and in Europe. We will, therefore, discuss the challenges of ensuring compatibility between different systems in order to create a suitable environment for the mobility of teacher trainees in Brazil and allow them to carry out a part of their training abroad.

Keywords: Internationalization. Higher Education. Teacher Training.

Resumo

Desde 2009 tem havido uma expansão da internacionalização do ensino superior no Brasil; traduzida em um conjunto de programas financiados pelo governo federal, por meio da Fundação Capes. O Programa de Licenciaturas Internacionais incentiva projetos voltados para a melhoria do ensino e da qualidade na formação inicial de professores e promove o intercâmbio de estudantes de Licenciatura em cursos de graduação da Universidade de Coimbra, Portugal. Há obstáculos que devem ser superados decorrentes da incompatibilidade curricular dos cursos de formação de professores no Brasil e na Europa. Vamos discutir os desafios de garantir a compatibilidade entre os diferentes sistemas, de modo a criar um ambiente adequado para a mobilidade dos licenciandos brasileiros e permitir-lhes a realização de uma parte da sua formação no exterior.

Palavras-chave: Internacionalização. Ensino Superior. Formação de Professores.

Resumen

Desde 2009 ha habido una expansión de la internacionalización de la educación superior en Brasil; traducida en un conjunto de programas financiados por el gobierno federal, a través de la Fundación CAPES. El Programa de Licenciaturas Internacionales alienta proyectos destinados a mejorar la calidad de la enseñanza y la formación del profesorado, y promueve el intercambio de estudiantes de licenciatura en la Universidad de Coimbra, Portugal. Hay obstáculos que deben ser superados, derivados de la incompatibilidad del plan de estudios de los cursos de formación para profesores en Brasil y Europa. Vamos a discutir los desafíos de asegurar la compatibilidad entre los diferentes sistemas con el fin de crear un entorno adecuado para la movilidad de estudiantes en licenciatura brasileños y permitirles la realización de parte de su formación en el extranjero.

Palabras clave: Internacionalización. Educación Superior. Formación del Profesorado.

Internationalization of Higher Education in Brazil

The latest step taken by the Brazilian government towards the internationalization of higher education was the launching of the Science without Borders Program (CAPES, 2011). This program seeks to promote the consolidation, expansion and internationalization of science and technology, innovation and competitiveness in Brazil through an undergraduate exchange program and postgraduate courses, and encourages mobility at an international level. It is very important for the country at a time of economic expansion where there are signs of improvement in the quality of life indices (THE ECONOMIST, 2012).

Internationalization involves a series of international activities such as academic mobility for students and teachers, linkage partnerships, and new academic research programs (KNIGHT, 2004). It is a dynamic process which comprises the integration or incorporation of a set of activities with those in other countries, and leads to the sustainability of the international dimension; in other words, "it is the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of higher education at institutional and national levels" (KNIGHT, 2008, p.21). There is a set of overlapping rationales that are involved - economic and political as well as cultural and academic (KNIGHT; DE WIT, 1995, p. 9). The economic and political rationales refer to the need for economic growth and investment, the up skilling and capacity development that enables the workforce to keep pace with global demand, and improvements in the image, status, and reach of the country around the world. The cultural and academic rationales refer to the importance of widening the capacity and understanding of the academic workforce and students through international exchanges and the development of a deeper understanding of other cultures. They also provide an international dimension to research and teaching, which will subsequently lead to improvements in the quality of education and research.

A typology of internationalization strategies and approaches in higher education has been identified (DE WIT, 1995; KNIGHT, 1994). In spite of the complexity of this typology (KNIGHT, 2008, KNIGHT; DE

WIT, 1995), four different approaches are being adopted in the field. The first of these is the activity approach, which fosters activities such as forming the curriculum, student/faculty exchanges, technical assistance and international student study programs. The second is the competency approach, which lays emphasis on the development of skills, knowledge, attitudes and values in the students, faculty and staff, and entails building school capacity and up skilling higher education institutions. The third is the ethos approach, which involves creating a culture or climate within an organization to support international and intercultural perspectives and initiatives; and the fourth is a process approach, which focuses on the organization, activities, policies and procedures of an international/intercultural dimension and its effects on teaching, research and services (ZHA, 2003).

The policies and outlook for Brazilian professional training from abroad in the Science without Borders Program differ from previous programs adopted in the country. For many years the Brazilian government financed the full and comprehensive education of Doctoral and Masters students abroad, and the main purpose of this was to provide training for qualified staff to work in Brazil, particularly in higher education, through the CAPES Foundation[1]. This allowed Brazil to build a consolidated graduate structure and increase scientific and academic production. According to Adams and King (2009), in 1981 there were about 2,000 papers with an author's address in Brazil. In 2008 this had increased to about 20,000 papers. With around 85,000 papers over five years, Brazil had about 1.83% of the world's papers published in journals indexed by Thomson Reuters during 2003-2007.

1 In this paper we will only make use of data from CAPES – Coordination for the Improvement of Higher Level Personnel. However it should be noted that the National Council for Scientific and Technological Development (CNPQ) and other state development agencies (for example, the São Paulo Research Foundation – FAPESP) have also funded the training of Brazilian staff abroad through scholarships.

Table 1. Distribution of scholarships abroad

	Under Graduate Sandwich	Master´s Degree	Master´s Degree Sandwich	Doctorate Degree	Doctorate Degree Sandwich	Post-Doctorate	Senior Internship	Visiting Professor Abroad	Total
2011	2.446	0	56	514	2.308	853	160	24	6.361
2010	1.473	3	26	577	1.890	729	204	49	4.951
2009	1.061	0	17	660	1.682	847	79	0	4.346
2008	930	1	0	723	1.558	923	0	0	4.135
2007	791	2	5	915	1.500	830	0	0	4.043
2006	734	1	6	932	1.530	762	0	0	3.965
2005	693	1	6	947	1.298	641	0	0	3.586

	Under Graduate Sandwich	Master´s Degree	Master´s Degree Sandwich	Doctorate Degree	Doctorate Degree Sandwich	Post-Doctorate	Senior Internship	Visiting Professor Abroad	Total
2004	473	1	9	940	1.019	535	0	0	2.977
2003	285	2	6	967	969	455	0	0	2.684
2002	287	16	7	894	840	454	0	0	2.498
2001	434	22	4	932	713	407	0	0	2.512
2000	474	19	1+	1.013	664	267	0	0	2.438
1999	344	10	0	1.090	502	256	0	0	2.202
1998	103	18	0	1.091	399	266	0	0	1.877

Data: http://geocapes.capes.gov.br/geocapesds/#

Table 1 shows an increase in the number of scholarships abroad. The average annual growth rate in the number of scholarships from 2005 to 2009 was approximately only 5%, while in 2010 and 2011 there was an increase of 12% and 22%, respectively. This reflects a shift in government policies during this time to investing in international cooperation programs in higher education. There was also a significant reduction in the number of doctoral fellowships abroad and an increase of doctoral sandwich scholarships. The policy adopted shows that there has been a strengthening of the graduate profile in the country as a result of funding for the training of doctorates in Brazil over the last nineteen years.

The policies defined by CAPES for the next ten years (BRAZIL, 2010) with regard to international cooperation programs, are designed to enhance the quality of academic studies in the national postgraduate system, and encourage international cooperation between universities in different modalities. This decision was governed by the belief that internationalization is a dynamic process and not a set of isolated activities, and that it entails concepts of integration or incorporation that lead to the sustainability of the international dimension (ZHA, 2003).

Brazil has established partnerships with several countries from every continent. Regarding the international mobility of students and academics, as well as the trend towards collaborative research and education, there has been a definite shift from alliances for cultural purposes to those formed for economic reasons, aiming at establishing a closer bilateral cooperation to gain a competitive edge (KNIGHT, 2004,

p. 23-24). Policymakers recognize that collaboration is the best way of accessing the knowledge and innovation that results from the financial aid granted to research by other nations. This forms a part of knowledge networking. It is also a source of real gain, because joint projects benefit from shared intellectual assets and rich synergies. Moreover, collaborative research results in more highly cited publications (ADAMS; KING, 2009, p. 9).

However, the most significant information for this study was the increase in the number of scholarships for undergraduate courses (either as an internship abroad or scholarships for a double degree). The data show that in 2010 the number of scholarships abroad for undergraduate students grew at a rate of 38.8%. In spite of this, as Table 1 shows, funding for international undergraduate training remained too low for many years. The current social, political and economic conditions in the country have increased the need for "worldwide social relations which link distant localities" because it is clear that "the intensification of cross-border contacts and interdependence has opened us new opportunities for the exercise of tolerance, ecumenism, solidarity and cosmopolitanism" (SANTOS, 1993, p. 15), characteristics of the kind of cultural globalization which Brazil needs to spread to its citizens.

The main program concerned with teacher training called International Teaching Degree Courses (Programa de Licenciaturas Internacionais - PLI) encourages projects aimed at improving the standard of teaching in initial teacher training in the areas of Chemistry, Physics, Mathematics, Biology, Portuguese, the Arts and Physical Education, and has led to an exchange of graduates and undergraduates with the University of Coimbra (UC), Portugal. However, this program had to face many challenges at the beginning, especially the problem of adapting to the requirements of the curriculum and negotiating with the institutions involved. These challenges were sharpened because of the need to comply with the Brazilian legislation for teacher education and the Bologna Declaration (1999), which regulates undergraduate courses in much of Europe.

In this article, we will discuss what can be done to overcome differences and build fruitful partnerships with the countries involved in

international collaboration with Brazil with regards to teacher training programs. The internationalization of Brazilian training teachers is designed to offer these students an appropriate training so that they can be in a position to face the changing socio-economic context in which they will operate and be prepared, both professionally and personally, for life in a global world (BREMER; DER WENDER, 1995, p. 49). In this way globalization is a phase that follows internationalization and multi-nationalization since, unlike them, it heralds the end of the national system as the central nucleus for organized human activities and strategies (SANTOS, 2003).

Brazilian Higher Education

Higher Education and learning systems in different social contexts hold a strategic position in the dynamics of the contemporary world. This is the result of the complex relations that they maintain with the process of economic development, the growing importance of technical and scientific knowledge, the new and pressing demands of democratic processes, the broadening of equality of opportunity and the general modernization of the societies in which they are embedded (ALTBACH; REISBERG; RUMBLEY, 2009). This scenario reveals that education, and in particular, higher education, stifles any chance of a lively process of national development that could give sustainability and credibility to the way Brazil features on the international stage. For this reason, it is of great importance to address issues such as making access to higher education more democratic, training teachers to a high standard, inclusion and diversity, and interdisciplinarity.

Although Brazil has succeeded in becoming a modern society with the levels of development of an emerging power, its educational system still performs poorly. A strikingly perverse pyramidal framework prevails in education, which only allows a tiny minority of students to have access to higher education. According to the Brazilian Institute of Geography and Statistics (IBGE, 2010), 10.6% of the population over the age of 25 has completed higher education, 3.5%, in the same age bracket, is attending this level of education and only 11.1% of employees have

been educated at this higher level. The question of the professional qualifications of basic education teachers represents a serious problem for education in the country. Data from the School Census of 2011 (INEP, 2012) show that 26% of the teachers, who are involved in Basic Education, have not had any training at a higher education level. This can be seen as the main obstacle to the future prospects of national development.

The Development Plan for Education (BRAZIL, 2007a) and the Education For All Commitment (BRAZIL, 2007b) were enacted to tackle this problem of training teachers to become qualified. These measures allowed the formulation of the National Policy for the Professional Training of Teachers of Basic Education (BRAZIL, 2009), which was enacted with the aim of organizing initial and continuous training for professional teachers for the public networks. The internationalization of the teacher training program forms a part of this set of activities that represent the strategies for dealing with the contemporary challenges raised by the problem of training basic education teachers, ensuring inclusion and diversity in higher education and improving the quality of universities through expansion, retention of students and combating absenteeism. Efforts have been made to provide teachers with the minimum qualifications required by legislation for higher-level courses.

The legal basis for teacher training in Brazil

The most important legislation for the training of teachers in Brazil is illustrated in a chart issued by the National Board of Education. In the last ten years, this legal framework has been analyzed and discussed by civil society and the academic community and led to a set of official documents which show how far the debate has progressed and the current legislation regarding teacher training in Brazil, while also defining the features of training teachers in the country. The Brazilian Teacher Training Diploma course is now a legal requirement for teachers, and is fully recognized as an official academic qualification at the same level as normal and specialist degree courses.

The new teacher training curriculum should not be confused with the traditional degree courses that formerly provided students with

teacher training, and existed in Brazil for decades. The old model became known as "3+1" and entailed a combined three-year course of scientific training and one year of teacher training, which were independent of each other. This means that training courses cannot be reduced to an isolated part of the curriculum and separated from the rest of the syllabus. The reason for this is that the task of integrating knowledge with teaching and learning cannot be left to the teacher, who needs an opportunity to participate in the process by engaging in collective and systematic form of reflection. From this perspective, the planning of training courses should provide teaching situations in which future teachers can put into use the knowledge they acquire, while, at the same time stimulating others, from a different background that do not have their knowledge of the curriculum.

Challenges of the Internationalization of Teacher Education

On the basis of what has been outlined with regard to the training of teachers, there are some obstacles that need to be overcome. These arise from the structure and operation of training courses for teachers in Brazil, which differ substantially from the curriculum structures practiced in Europe, for example. In Brazil, the training of teachers occurs from the beginning of the undergraduate course. Brazilian legislation stipulates that the teacher must be trained from the beginning of the course in order to acquire a fixed teaching identity. Thus activities related to teaching or pedagogy are carried out from the 2nd year of the degree course which differs considerably from the pattern established in many of the countries of the Global North.

The Bologna Declaration (1999) envisaged the creation of a European area of higher education as a means of promoting the mobility and employability of its citizens. The adoption of an easily comprehensible system and comparable degrees was carried out by the implementation of the "diploma supplement". This was a measure designed to provide graduates with an attached document including a description of the awarding institution, to aid employability and competitiveness. This certificate was essentially based on two main

areas – an undergraduate and postgraduate level. Access to the second level required the successful completion of the first cycle of studies, which lasted a minimum of 3 years. The degree awarded after the first cycle acted as an entrance qualification to the European labor market.

However, this structure has caused problems for teacher training in European countries (BUNNING; SHILELA, 2006). It has also been argued that the Bologna system of training teachers is incompatible with the requirements of Brazilian legislation with regard to teacher training. Despite these differences, international contacts and cooperation are in general important for the teacher training institutions (both for research and education), its staff and the students. The role of science and technology in society requires an international and interdisciplinary approach; there is no such program at this level in Brazil that also provides an opportunity for students to study abroad. This means that there is a need to prepare students, professionally and personally, for this new interdependent and global world.

Internationalizing the curriculum, together with student mobility and staff mobility, constitute the key features in the implementation phase of the process of internationalization, which involves international cooperation (BREMER; DER WENDER, 1995, p. 11). We will discuss the difficulties of achieving compatibility between the different systems so as to create a suitable environment for the mobility of training teachers in Brazil and thus allow them to carry out a part of their training abroad. We will use as an example the experience of the International Undergraduate Program for Teacher Training (PLI) between Brazilian Universities and Coimbra University in Portugal.

In the Coimbra Program several adjustments were needed and several steps were taken to meet the requirements of Brazilian legislation and the needs of students, while ensuring the availability of places at the University of Coimbra. This arrangement involved a considerable amount of goodwill among the institutions and teachers involved. We need organizational strategies that take account of the academic activities and services of the universities and add an international dimension to the main activities of a higher education

institution. Organizational strategies have initiatives which help to include an international dimension, or in other words to ensure that the activities discussed are institutionalized through adopting appropriate policies and administrative systems (KNIGHT; DE WIT, 1995, p. 17). The activities are mainly related to technical assistance and cooperation, together with extra-curricular activities and institutional services.

The first factor that should be borne in mind is the policy-making decisions that are adopted for the opening up of a dialogue between institutions, the organization of the structure and the institutional collaborative body. In our example, this work was undertaken by the Coimbra Group of Brazilian Universities (CGBU), CAPES Foundation, University of Coimbra and Brazilian Universities. This decision-making involves adopting an alternative approach to these organizational models, which is to regard the internationalization process as a continuous cycle. This involves being aware of the need for internationalization as well as its purpose and benefits for students, staff, faculties, and society; commitment on the part of all those involved; planning; its operation; an assessment review and enhancing the quality and effects of initiatives and progress on strategy and reinforcement (KNIGHT, 1994).

The second stage is the establishment of an architecture that allows different curriculum pathways for students doing a double degree, which can be made possible by the participating institutions. The internationalization of the curriculum includes subjects with an international syllabus, adopting comparative and subject-oriented approaches and interdisciplinary areas and intercultural studies (KNIGHT; DE WIT, 1995, p. 17). Moreover, sometimes it requires a new curricular structure that comprises three stages and takes into account the gap between the Brazilian academic periods (the academic year usually starts in March) and Higher Education in European countries (where the school year begins in September). The first course will be structured on a basis that is described in the Figure below, which provides the curriculum architecture and grid equivalence.

First cycle: TERM 1 to 3 (at Brazilian University):

Training in the specialist area
Teacher Training – subjects and practice

Second cycle: TERM 3 to 7 (at Coimbra University)

Training in the specific area
Teacher Training – disciplines and practice
Cultural and Linguistic preparation
Optional course (additional and / or supplementary)

Third cycle: TERM 7 to 10 (at Brazilian University)

Conclusion of training in specific knowledge
Additions to Curriculum required
Teacher Training – disciplines and practice
Internship Teaching
Professional certification

Figure 1. Curriculum Architecture

The third and most challenging stage involves the construction of a new curriculum or grid equivalence between compatible disciplines and different load paths. Here the curriculum is defined as any program of study, whether it is a full study program, a course or a module, which necessarily involves a certain amount of structured teaching. This can only be achieved through intensive dialogue and negotiation. Figure 2 shows, as an example of this work, the grid equivalence of the Teaching Degree Course in Mathematics, from the Federal University of Rio Grande do Sul. In the curricular chart, the particular subject-areas are in white lines, the teacher training subjects are in blue, the teacher training (practice) and internship teaching are in dark blue, and the optional and/ or supplementary courses are in pink.

FIRST CYCLE: DISCIPLINES OF THE 1st TO 3rd SEMESTER, AT BRAZILIAN UNIVERSITIES	
SUBJECTS IN A BRAZILIAN UNIVERSITY	SUBJECT UC (EQUIVALENCE)
Computer Studies in Elementary Mathematics	
Foundations of Mathematics I A	
Analytical Geometry B	
Geometry I	
Arithmetic (Foundations)	
Mathematics (Foundations)	
Algebra I	
Linear Algebra I A	
Calculus and Analytical Geometry I A	
Geometry II MATHS	
Organization of the Basic School	Contemporary Pedagogy and Educational Dynamics
Educational Psychology I A	Educational Psychology
History of Education: History of Brazilian Schools and Pedagogy	History of Education
Educational Psychology II	Educational Psychology II
Philosophy of Education	Philosophy of Education
Trends in Mathematics Education	
Teaching Practice and Learning Mathematics Laboratory skills	
SECOND CYCLE: SUBJECTS OF 3rd to 7th SEMESTER, AT UNIVERSITY OF COIMBRA	
SUBJECTS UC	SUBJECT BRAZILIAN UNIVERSITY (EQUIVALENCE)
Programming Methods I	
Programming Methods II	
Curves and Surfaces	
Geometry	
Linear Algebra and Analytical Geometry I	Linear Algebra I A
Infinitesimal Analysis I	Calculus and Analytical Geometry I A
Number Theory	Arithmetic (Foundations)
Linear Algebra and Analytical Geometry II	Linear Algebra II
Infinitesimal Analysis II	Calculus and Analytical Geometry II A
Discrete Mathematics	Combinatorial Mathematics I e II
Infinitesimal Analysis III	Real Analysis I
Differential Equations and Modeling	Mathematics Applications
Groups e Symmetries	Algebra III
Infinitesimal Analysis IV	Real Analysis I
Bodies and Algebraic Equations	Algebra II
Physics (Introduction) (*)	General Physics I e II
Probability	Probability I
Infinitesimal Analysis IV	Analysis B

Observation and Intervention Unit	Teaching Practice and Learning Mathematics Laboratory skills I
Planning, Management and Assessment	Curriculum Organization, Planning and Assessment
Curriculum Theory	Curriculum Theory
Specialist Education I	Educational Intervention and Special Needs
THIRD CYCLE: DISCIPLINES OF THE 7ST TO 10ST SEMESTER, AT BRAZILIAN UNIVERSITY	
DISCIPLINE BRAZILIAN UNIVERSITY	DISCIPLINE UC (EQUIVALENCE)
Numerical Calculus A	Numerical Mathematics I
Probability and Statistics	Statistics
Complex Analysis	Complex Analysis
Teaching Practice and Learning Mathematics Laboratory II	
Internship in Mathematics Education I	
Brazilian Sign Language (LIBRAS)	
Research in Mathematics Education	
Internship in Mathematics Education II	
Internship in Mathematics Education III	
Completion of Course Work	
Elective Discipline I	Elective Discipline I
Elective Discipline II	Elective Discipline II
Elective Discipline III	Elective Discipline III

Figure 2. Grid Equivalence of the Teaching Degree Course in Mathematics.

As it can be seen in Figure 2, the foreign universities have to allow Brazilian students to travel to study in specialist training courses as well as teacher training courses. This can often become an institutional problem and involves teachers of undergraduate and graduate courses. In addition to requiring the circulation of students from different undergraduate courses, for example, in the case of the mathematics degree course, students must attend lessons at the Department of Mathematics in the Faculty of Science and Technology, and the Faculty of Psychology and Education Sciences. This shared teaching involves a measure of goodwill and dedication on the part of the teachers and administrators.

The next stage involves the monitoring and assessment of the program. This is possible through the study support schemes financed by CAPES that are carried out every six months by Brazilian supervisors

at the University of Coimbra. These are designed to do the following: help new students become integrated in the university culture and adjust to the curricular requirements, monitor the development of the project, assess the progress of the schemes, maintain constant communication between the Brazilian Universities and the University of Coimbra (UC) and collate information about the program to generate and make available a database that can provide information for future projects. Evidently this makes the Program relatively expensive but it provides opportunities for other international experiences to be incorporated into teacher training.

The Methodology and Database

Provisional and final reports were analyzed and semi-structured interviews were conducted with the students who took part in the program (the recipients of scholarships in the period 2010-2012) with the aim of finding out if the curriculum that was employed was effective and suitable. Interviews were conducted with seven scholarship students from the Federal University of Rio Grande do Sul (UFRGS), either individually or in small groups. These were participants from the first session of the program and linked to courses in Physical Education, the Humanities and Mathematics.

The data processing involved analyzing the findings of the student reports as well as the interviews. An attempt was made to ensure that it was a rigorous analysis, which went beyond what seemed (from a simple reading of the document) to be the meaning. The preliminary analysis of the interviews involved arranging the material. The interviews were transcribed and the documents passed on to a "float reader" (BARDIN, 1979), which allowed the first theories to be sketched out and the establishment of indicators. These indicators are classified as comparative units for the thematic analysis of the coding modes and are employed to record the data that occurred with relative frequency in the interviews.

The units of analysis, which allow a description to be made of the relevant features of the findings (BARDIN, 1979, p.104), provide

guidance for coding and the choice of recorded units and categories. The recorded unit is the unit of meaning that codifies it and allows the text to be broken up and reconstructed. The selection of counting rules (or enumerating) was carried out on the basis of the frequency at which the recording unit appears and its regularity of occurrence, as well as the reasons for the internationalization of teacher training that is identified in the literature and compatible with the reasons shown in the official documents of CAPES. The units of analysis chosen from the documents were as follows: subjects with a specialist or scientific content, pedagogical subjects for professional training, extra-curricular activities, the process of adapting to and becoming a part of the academic and cultural environment of the UC and the personal human and social development of the students.

On the basis of these units it is possible to make a choice of the categories (classification and aggregation). In the analysis of content, the categories are representations or classes that bring a set of elements together (recorded units) because they have features in common. The categorization allows a large amount of information to be assembled at the expense of the layout and thus the correlation of the classes of events that is needed to put them in order. The categorization represents the transition from raw data to organized data. With the aid of the units of analysis it was possible to define the following as categories: the curricular framework for a double graduation course and the way this course is put into effect, intercultural development and the personal development of the students.

Discussion and Results

The academic activities that emerged from the curricular framework drawn up and negotiated by the universities proved to be suitable for the students, although there were serious gaps that were the source of problems or conflicts. The students thought that there was considerable improvement from the perspective of enhancing the capacities, skills, knowledge, attitudes and values of the students, when linked to a specialist area of knowledge. This unit of analysis is linked to

curricular activities that are aimed at developing technical and academic competencies. The interviews revealed that the activities that attracted the academic world at the UC were suitable but did not surpass what the students could have experienced in a Brazilian university.

The students expressed the view that the academic standards at UFRGS were superior to what they had experienced at the UC. The academic activities that most attracted the Brazilian universities like undergraduate research, extension activities, and academic monitoring programs, offered more scope and were of a higher standard when undertaken in Brazilian universities. Only one of the informants thought that the Mathematics course allowed a greater conceptual improvement and that being able to do a double graduation course at the UC provided an advantage in his academic training, since it would not be possible in a Brazilian university.

In the view of the informants, the academic activities linked to pedagogical training were carried out in a very poor manner. The information gathered suggests that some of the informants who had to study subjects connected to teacher training turned to other subjects that had not been envisaged in the planning (grid equivalence for double graduation) and took part in extra-curricular activities linked to the teaching profession. All of them complained about the lack of curricular activities concerned with teaching and pedagogical training.

The training of the students who were closely tied to specialist knowledge is carried out in a different way from that of the courses at the UC, and this was ascribed to the nature of the course, which laid a greater emphasis on Mathematics. A part of the problem can be attributed to the training structure at a graduate level, which has been established in accordance with the principles of Bologna, which operates in a climate or ethos that tends to concentrate on the training of skills and specialist content. The information gathered shows that the pedagogical training provided was not sufficient for the training of future teachers.

This gap was regarded as of crucial importance in affecting the way a teaching identity is established for the students. They claimed

that they had not acquired "a feeling of becoming a teacher" owing to the way the course was structured at the university. They insisted that they recognized that being granted a scholarship for double graduation at the university by the Brazilian Government entailed a commitment to becoming teachers and taking part in basic public education in the future. Nonetheless, some of them stated that "they did not see themselves in the position of being a teacher in a public school", while others "could not imagine themselves as being teachers". Instead, the students recognize the value of the experience of double graduation as an opportunity for "a distinct kind of training that can open doors for them to become professionals in the private teaching network in Brazil", which has better working conditions and offers higher salaries.

The framework of the double graduation course and the way they were carried out caused difficulties for the students, mainly because they were linked to the academic organization of the university. One factor that was mentioned by all of them concerned the assessment procedures of the university, which initially caused difficulties. The Brazilian students, who are used to continuous evaluation, paid attention to their everyday progress in the classroom since they are used to having periodical assessment as a part of an analysis of their acquisition of learning. They were thus dissatisfied with the Coimbra model, which although based on models of continuous, mixed and final assessment, laid excessive weight on the final exam to the detriment of the work carried out during the term.

According to the testimony of one of the informants, "it was a shock to find out that a student did not have the power to manage his own life at the university; for example, it was not always possible to choose his kind of assessment because it was up to the teacher to make the decision". This reaction suggests that the scholarship students were unable to adapt to the academic dynamics of the UC in a satisfactory way. These higher education students had experienced a long period of academic training and have thus established their own patterns, conceptions and approaches with regard to learning, strategies and regulations. As a result, they may find themselves in conflict with the kinds of learning and regulations that are expected and regarded as

appropriate in foreign universities (MARAMBE; VERMINT; BOSHUIZEN, 2011). For this reason, they must be well prepared and know what will be required and how to handle their studies in a foreign country.

It was also found that the university was unprepared to receive the Brazilian scholarship students. The information gathered shows that in spite of negotiations and attempts to form a syllabus that is compatible for both universities, the internal registers and academic protocols of the university were not flexible. The university was not prepared for the arrival of Brazilian students and for the requirements arising from the flow of graduate and post-graduate students. These initial problems caused disappointment and discontent, both among the students and the university lecturers.

The same lack of preparation was found in the PLI monitoring and assessment procedures carried out by the Brazilian supervisors. The scholarship students stated that they had difficulties in communicating and having access to these supervisors, which certainly added to the difficulty of adapting to the academic environment of the university and tackling their problems.

The second category that emerged from the data concerned the cultural training and enculturation that was fostered by the experience. The informants expressed the view that being integrated with the Portuguese community allowed them to form a broader view of culture and the international community. This process benefited from the feeling of togetherness in the international academic environment with other mobile academic students from different continents, which allowed students to extend their cultural horizons.

The initial difficulties of adapting to the Portuguese culture were bound up with a resistance to being embedded in the Portuguese cultural world. A part of the difficulties of intercultural learning, according to the students, was linked to the fact that it was a very large Brazilian community, "there are more than a thousand Brazilians at the university", "it is very easy for us to be restricted to our core of Brazilians and this happens with other international communities too".

Also, in the opinion of one of the informants, the fact that the scholarship students had not been invited to take part in the academic praxis[2] was a determining factor that made it difficult for them to become absorbed in the multicultural academic community, especially with the Portuguese students, because "all the social relations and space for socializing in the course occur within the academic praxis".

Overcoming this initial challenge and establishing social relations with other cultural groups involved the support of the lecturers who sought to bring about the formation of multi-cultural working groups in the classroom activities. This even involved a personal attempt to seek their multicultural togetherness.

The interviews showed that all the scholarship students were given opportunities to take part in intercultural learning by being involved with the Portuguese community and living in "Republics"[3] basically consisting of Portuguese students. They participated in the Academic Association of Coimbra in the form of trainers for the children's football team in "the Benjamin Project". They were athletes in the university "futsal" team. Some were members of the university's Folklore Group. However, there were other students who did not take part in the activities of Portuguese groups or associations. Since this question of socializing had not been foreseen in the initial planning, the students did not feel compelled to become actively engaged in the local culture and remained alienated from an environment that allowed them to draw close to the Portuguese community in a friendly way.

There seems to be general agreement among the informants that the double degree course in Coimbra was of value to their personal development. This improvement was reflected in the following ways: signs of personal maturity, a vivid multicultural experience, the chance to broaden their personal horizons in both professional and cultural ways, and learning a foreign language through contact with students of different nationalities - these were the most significant benefits of their experience at the university. This information corroborates the value of the approach adopted by the PLI program.

[2] The academic praxis of the University of Coimbra is a complex web of ritual, formal and festive practices. It is the most visible part of the ceremonial acts that the university community ostensibly confers on the university (FRIAS, 2003).

[3] The Republics, whose origins go back to the 14th Century, which form a part of the legends and social life of Coimbra and of the socio-cultural heritage of the country, are supported by the social services of the university.

The approach enables students to improve their competencies and entails broadening their skills, knowledge, attitudes and values. The ethos approach emphasizes the importance of creating a culture or climate within an organization to support international and intercultural perspectives and initiatives, while the process approach focuses on organizational, activities, policies and procedures within an international/intercultural dimension and the effects they can have on teacher training.

Conclusion

The "internationalization" of higher education in Brazil, which has gathered pace in recent years, has drawn on traditional areas of teaching at different levels and now reached the domain of teacher training. This trend is praiseworthy and reveals a conception of teacher training that has moved away from the commonplace cultural attitudes to a broader view of cultural, academic and personal training for teachers which must now take place in an increasingly globalized and multicultural society in Brazil.

The Internationalization of Higher Education in Brazilian teacher training programs involves a negotiation process that enables one to overcome the difficulties posed by the different structures and theoretical perspectives of teacher training. The experience of students in Portugal revealed these difficulties and also pointed the way to some possible solutions. However, before a similar program can be run in other non-Portuguese speaking countries, we still have to overcome the barrier of language. What has been shown to be one of the best means of fostering the process of internationalization involves Portuguese universities and seems to be one of the features that can lead to the expansion of the program to other Portuguese universities in 2012.

The concept of internationalization is important for teacher training in Brazil because it is related to competencies, ethos and procedures (ZHA, 2003). This theoretical background emphasizes the development of skills, knowledge, attitudes and values in students.

It also stresses the need for a culture or climate that values and supports international intercultural perspectives and initiatives and the integration or instilling of an international/intercultural dimension into teaching, research and educational services through a combination of a wide range of activities, policies and procedures.

The reasons for "internationalizing" teacher training in Brazil are consistent and appropriate although the strategies adopted may be enhanced in a way that can allow a teaching identity to be formed that is strengthened during the experience abroad. At the same time, the assessment of the program must take account of other factors apart from training in a specialist area and examine the intercultural and communicative knowledge and skills that are acquired by the students.

In seeking to discuss how the process of "internationalization" occurs in Brazilian teacher training, we are confronted with serious philosophic problems. The epistemological base of the teacher training course differs in a crucial way from the epistemological base that emerges from the Bologna agreement. However, this difference does not mean that the Brazilian framework must adapt to that of Bologna. We do not support this hypothesis because we are sure that the Brazilian model is relevant and appropriate for a type of training that is suited to a professional identity throughout the course. What is required is a curriculum that is compatible with what is appropriate for Brazilian teacher training. This has effectively begun in the experience recorded in this study although it does not represent an exemplary experience because it raises serious problems that still need to be addressed.

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