Educational Development Units in Spain: Current status and emerging trends

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IDES: Treballs Fi de Grau, which works on the introduction of the compulsory Bachelor Thesis.

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Recent studies show that the character, function and goals of Educational Development Units (EDUs) in many countries are undergoing a shift, and they now tend to support universities and learning in a more comprehensive way. The status of Spanish EDUs, however, has not been studied in detail. The aim of this article is to describe the current status of 45 such units to explore the degree to which a similar shift can be observed. The data revealed clusters, from which four models were defined. The models illustrate the increasing diversity of functions and widening scope of practice within Spanish EDUs.

Keywords: educational development; instructional development; correspondence analysis

Introduction

Educational Development Units (EDUs) have moved from a peripheral role to a strategic position within universities. This shift has expanded their mission beyond their initial mission of supporting professional development for teaching. In a longitudinal study based on data provided by EDU directors in the United Kingdom, Gosling notes that despite there being a large degree of diversity in EDUs, there are two areas where there is broad agreement with regard to their role: (1) the professional development of staff in learning and teaching and other academic duties, and (2) a shared strategic responsibility for implementing strategies for learning, teaching and assessment, for encouraging innovation, and for enhancing teaching quality (Gosling, 2008:18). The same trend is seen in Norway (Havnes & Stensaker, 2006), Sweden (Roxa & Martensson, 2008), Switzerland (Rege Colet, 2010), and Denmark (Kolmos, 2010), where these units have shifted from being technical units dedicated to helping individuals become good teachers to more broadly conceived units that target the

organizations, frameworks and infrastructure that connect teaching and learning. This new role for EDUs has also been an object of study in Australia (Holt, Palmer and Challis, 2011), where EDUs are being rebranded as Learning and Teaching Centres (LTCs) and follow, in broad terms and in various countries around the world, the trend described in Land (2004), Gibbs (2009, 2013), Gibbs et al. (2000), Fraser et al. (2010) and Saroyan and Frenay (2010).

The rationale that drives such transformation should be sought within the specific context of each country or region. In the UK, following the release of the Dearing report (1997), substantial investment was made in funding policies as part of a long-term national strategy for higher education. The result was greater institutional involvement in teaching and learning strategies (Trowler et. al 2006). Later, the Browne report (2010) proposed the creation of a student-led market in higher education. The cuts in public funding and the increases in student fees created a harshly competitive environment, setting the stage for a struggle for dominance in the higher education market. A similar situation has been observed in the Australian system (Ling, Fraser & Gosling, 2013; Margison & Considine, 2000), where the consequences of this shift have been unpredictable and concerns have been voiced (Brew & Cahir, 2014; Locke, 2014; Petrova & Hadjianastasis, 2015) given that the EDUs that already exist may be in danger of closing due to a lack of funding.

In contrast to what has been occurring in the UK and Australia, in many European countries the transformation in higher education in general and in EDUs in particular has been happening more slowly, and it has been strongly tempered by the characteristics of each country and their the adaptation to the European Higher Education Area (EHEA). More specifically, in terms of university operation in Europe, the establishment of the EHEA marks a 'before' and an 'after' (Taylor and Rege Colet,

2010) because it introduced methods that did not previously exist, such as the use of tools related to quality assurance. A study on the implementation of the Bologna Process highlights that external quality assurance systems are now practically ubiquitous in the EHEA, a reality that is far different from when the Bologna Process was launched (European Commission/EACEA/Eurydice, 2015:104). The need to show results (transparency) and the fact that universities compare themselves against other universities lead to complicated quality improvement policies and strategies, which may be one of the factors behind the transformation that EDUs are experiencing in some European countries.

But what is known about the situation of EDUs in other European countries, such as Spain? How do Spanish EDUs operate? What areas do they focus on? What trends emerge from studying their current configuration? Is there any indication that they are moving beyond their traditional function of teacher training? Little research has been done regarding these questions. In a recent study, Fernández and Márquez (2014) undertook an empirical analysis of EDUs in Spanish universities and provided a detailed description of the existing EDUs and the offices and organizational units that administer them. The current study goes further and provides 4 models that illustrate how EDUs in Spain are evolving. These models constitute a foundation for future in-depth studies that may inform future policies on educational development in Spanish universities. This study also contributes to a better understanding of the situation of EDUs internationally, as it provides a new case study that may be, to a certain degree, representative or indicative of what is happening in other countries in southern Europe where, similar to Spain, EDUs are being institutionalized later and more gradually.

Methodology

Systematic inquiries have provided empirical evidence showing that undertaking

specific activities in the context of a centralized unit and over a short period of time can be a good strategy for developing certain instrumental skills in teaching staff or providing them with institutional information, but such activities are less effective for changing aspects such as conceptions about teaching and learning, practices used when interacting with students, and bringing about overall change in the university (Gibbs 2009, 2013; Prebble et al. 2004; Southwell & Morgan 2009; Steinert et al. 2006; Stes, Clement & van Petergem 2007). We take the view that providing more activities with a longer duration, and addressing a wider range of topics, are indicators of increased university commitment to the improvement of teaching and learning. Such a commitment involves new ways of working, greater institutional relevance, and a larger investment in terms of resources. Given the above considerations and our aim to map and describe the characteristics of Spanish EDUs and analyse the trends that Spanish universities are experiencing in this area, we conducted a descriptive statistical analysis that focused on two variables: the duration of educational development courses offered by Spanish EDUs, and the contents covered in those courses.

Spain has a total of 51 public universities, and of those 45 were selected for our study (see Table 6)[1]. We visited the websites of the selected universities in June and July of 2013 in order to collect information about their EDUs and their activities for the entire academic year. The variables collected were: target groups, supervising office, functions, course contents, and course duration.

In order to analyse the information collected, we first carried out a descriptive statistical analysis of the variables. Secondly, to analyse the relationship between the variables university/duration and university/content, we crossed them. The two tables were analysed using correspondence analysis (CA) statistical techniques (Benzecri,

1973), and by combining the CA results we were able to define different Spanish EDU models.

CA is a multivariate descriptive and exploratory statistical method designed to analyse the relationship between categorical variables. Its goal is to represent the categories as points in a graphical display or map in low-dimensional space. The method, following the same conceptual approach as principal component analysis (PCA), allows new dimensions to be obtained, along with the coordinates of each category in these dimensions. To know which categories are best represented in each dimension, two measures are needed: the absolute contribution to the measured inertia (INR), which quantifies the importance of each point in determining the direction of the dimensions, and the relative contribution (QCOR), which gives the portion of variance for a point explained by a dimension. The main advantage of CA over PCA is that it works with categorical variables and allows categories to be plotted on a map.

The quality of the map, in terms of representativeness, is measured as the sum of the percentages of variance explained by each dimension. If that value is high, the map provides a good representation and the position of the points can be interpreted straightforwardly; if the value is not high, we consider the INR and QCOR measures (more details regarding interpretation are found in Greenacre and Blasius (1994)).

Analysis and Results

In order to establish the changes experienced by Spanish EDUs over time, we must look at their origin. Unlike in other countries, where units were created on an *ad hoc* basis, in Spain the General Education Act (1970) created Institutes of Educational Sciences (IESs), which "shall be embedded in each university, and they shall have the responsibility of training the teaching staff at all levels" (art. 73). The aim was to train 'effective' teachers by developing teaching skills via short-term courses that were

fundamentally prescriptive in nature (García-Gómez, 1998; Imbernón, 1999).

There has been no systematic analysis of the role played by IESs in the on-going training of academic staff. What is known is that some IESs disappeared, and others survived, retaining their functions in both university and non-university contexts. Of the 45 public universities analysed, 34% (16) continue to operate IESs, even though in two universities (U30 and U36) the IESs share the task of teacher training with other units. The remaining 66%, 29 EDUs, are new creations that emerged at different times starting in the year 2000 in response to increasing demands to adapt to the EHEA requirements, a process that is in line with what occurred in other European countries (Taylor & Rege Colet, 2010).

Functions and target groups of EDUs in Spain

When we study the functions that EDUs perform, we see a degree of similarity as well as a great deal of diversity. All units engage in training, which is understood as improvements in teaching skills (instructional development), teaching innovation and quality. In addition to this common core, 58% of units engage in activities related to language training, diversity, promotion, collaboration, and occupational health and safety. This diversity in functions is related to the size of the university; in large universities the units that handle language training, collaboration and occupational health and safety are generally separate from those dedicated to educational development.

In terms of the groups for whom these activities are designed, for the most part they are targeted at academics, although there is starting to be a certain degree of diversification. In this regard, 22% of universities offer activities to academics as well as administrative personnel. However, only two universities (U25 and U15) have a

program that is open to both groups (one is based on developing leadership skills and the other on health and safety).

Another group that is beginning to receive the attention of EDUs is students. Three universities (U10, U38 and U40) have started to move in this direction by providing learning support programs (courses on developing learning skills and innovation projects). These are the first signs of a much needed development, but the cases in Spain are still isolated.

Duration and content of educational courses offered

Analysing the duration of the educational development programs that are offered in Spanish EDUs is relevant, as it reveals the degree to which they are incorporating the findings from the scientific literature regarding the strengths and limits associated with different program lengths. Duration also reveals the extent to which EDUs have an understanding that quality in higher education is somewhat more complex than simply providing training in certain skills. In light of the above, the question is whether Spanish universities are developing demonstrably efficient strategies in terms of course duration.

To answer this question, we've classified the activities that are listed on EDU websites into four groups based on duration (see Table 1). The short duration (< 20 hours) courses are the most common, representing 83% of the courses analysed; they address a wide range of topics, which we will discuss below. Medium duration (20-49 hours) courses constitute 14% of the total, and in many cases they are related to the use of technologies in teaching. The remaining 3% represent long (50-99 hours) and very long ($\geq$ 100 hours) duration courses (2% and 1%, respectively); these are typically programs that follow a comprehensive model in which emphasis is put on teaching development and practice in a complex environment.

Table 1

These data show that short duration courses are the predominant activity offered by EDUs, which mirrors the trend that was a direct consequence of the policy established by the 1970 General Education Act. The technical approach taken in those early days, which focused on developing teaching skills, continues to be the dominant practice despite the functional and organizational changes that the units have experienced in recent years and the findings of research in the field (Steinert et al. 2006; Stes et al. 2010). Nevertheless, there are indications of a shift towards phased professional development programs. One example is U6, where activities are geared to the needs of academics at different career stages.

Long duration courses that adopt a comprehensive perspective toward teaching and learning that goes beyond developing teaching skills are present in 35 (78%) of the universities in our sample (Table 2). Of the 35 universities, 23 use this approach for the professional development of novice academics, a fact that can be interpreted as a training focus that addresses the gaps or shortcomings that novice academics have at the beginning of their careers.

Table 2

Analysing the contents of the courses offered also shows that there are a few leadership development programs, which illustrates the range of approaches and the trend towards diversification in some universities. For example, U6 offers a program in management and research (48 hours) in addition to one that is specially designed for young researchers (36 hours). U13 runs a University Teaching Management program (12 hours) and at U14 there is a program (50 hours) that addresses the

internationalization of its academic staff. U25 and U38 offer certificates in research, management, and teaching in higher education (375 and 150 hours, respectively). And at U27 the Ehundu Degree Development program asked a number of Deans' Offices to sign documents in which they agreed to a series of indicators that are aimed at global and holistic development, including professional, institutional and community development, active education, and curricular development, all from a perspective of empowerment and distributed leadership.

Table 3 summarizes the results of our analysis of Spanish educational development, and it shows that in the universities sampled the predominant areas addressed are instructional and professional development. We see some institutional actions whose objective is to drive innovation and improve teaching quality. The actions that most stand out for their implications for strategic commitment are the programs that address institutional development, though they are still uncommon in Spanish universities (27%). Such programs differ widely in terms of their degree of development and implementation, yet the mere fact of their existence is relevant. The most common action is to publish annual calls for projects on teaching innovation and enhancement.

Table 3

In sum, we can observe that the EDUs in our sample continue to offer predominantly short duration courses that focus on the development of certain skills at the individual level, maintaining the approach taken by IESs in the 1970s. Nevertheless, we can glean indications of diversification in terms of who the programs are geared towards (academics, administrative staff, and students) and in terms of duration (medium, long, and very long duration courses), and contents (programs focusing on organizational and professional development). This diversification is present in a

minority of universities thus far, and while it does not impact universities more generally, it illustrates similarities to the changes observed in other countries

Mapping the universities

The above analysis shows how EDUs are responding in a context of change, but how are the universities positioned within this new space? In order to understand each university's position in terms of the categories of the variables analysed, the variable university was cross-tabulated first with course duration and then with course contents. This analysis considers a subsample of 40 universities (Table 6), 5 were excluded because the information on the corresponding websites wasn't complete. For each table we ran a correspondence analysis (CA), which graphically displays the relationships between each university and the categories of the variables analysed. Finally, combining the results allowed us to define the various EDU models in Spanish universities.

University by course duration

The CA results show that there are three relevant dimensions. Dimension 1 (Not Short/ Short) is the most informative, as it explains 60.9% of the variance and it differentiates a large number of universities that frequently run short courses from universities with courses of long and medium duration. Dimension 2 (Medium/Long) explains 32% of the variance, and it distinguishes between universities that offer long duration activities and those that offer medium duration activities. Dimension 3 (Not Long/Very Long) only explains 7% of the variance, but it is highly correlated with the category very long.

Figure 1. CA of cross-tabulation of university with course duration: Dimension 1-Dimension 2.

The two-dimensional map (Figure 1) is highly informative (accounting for 93% of variance), and it allows us to straightforwardly interpret the relative positions of the universities in terms of the categories of the variable duration with a high degree of reliability. It shows which universities have, in relative terms, more long, medium or short duration educational development courses than the average. The position of short is near the centre, meaning that this is the most common feature. On the right, we see 15 universities that are primarily characterized by their offer of short duration courses. On the bottom left we see 7 universities that stand out for offering a relatively larger number of long duration courses. Of those, U5, U13, U14 and U30 are the most correlated with the category long. On the top left there is a group of 13 universities that offer a greater number of medium duration courses; U4, U6, U15 and U25 show the highest correlation with this duration.

Figure 2 represents the crossing of Dimension 1 (Not Short/Short) and Dimension 3 (Not Very Long/Very Long). This map explains 68% of the total variance and shows the universities whose educational development courses are categorized as very long (U2, U23, U24, U27 and U38).

Figure 2. CA of cross-tabulation of university with course duration: Dimension 1-Dimension 3.

To sum up, the correspondence analysis shows that that even though short duration courses are the predominant type in Spanish universities (37.5% of the universities in the sample), some universities are beginning to distance themselves from this trend by offering courses of longer durations.

University by course contents

The courses in the sample tend to address specific competencies, although it is true that in any educational activity multiple interrelated aspects arise. These courses respond to important, frequently recurring themes (Figure 3). Within the category of personal development we include activities that are related to language learning for teaching, and activities related to education for the purposes of promoting development, equality and cooperation. The category of academic leadership includes courses on curricular coordination.

Figure 3. Percentage of courses by contents.

We used CA to analyse the table that was obtained by crossing university with course contents. We obtained 6 dimensions but selected only the first 5 because they explained 96% of the information. Table 4 shows the percentage of variance explained and the categories that are best represented in each dimension according to INR and QCOR. The 5 dimensions are Leadership/No leadership, Technology/Planning & Strategies, Research/Planning & Strategies, Health & Safety/Research, and Personal Development/Quality.

Table 4.

The map in Figure 4 crosses Dimension 1 (Leadership/No leadership) and Dimension 2 (Technology/Planning & Strategies). This map is the most informative and explains 58.9% of the total variance (we cannot directly interpret the relative positions of the universities, and thus the INR and QCOR measures are needed). The universities closest to leadership are U15, U27, U3, U33 and U25. The universities most closely related to technology are U36, U38, U24, U26, U16, U7, U8, U9 and U1, and the universities that are closest to planning and teaching-learning strategies are U6, U34 and U4.

Figure 4. CA of cross-tabulation of university with course contents.

The remaining two-dimensional maps display a lower percentage of variance, and thus it is not possible to straightforwardly interpret the proximities of the points in the graph.

According to the most informative dimensions, the contents that most differentiate the course offerings in Spanish EDUs are leadership, technology, planning and strategies, and research. The presence of research and leadership indicates that the core of the original function of EDUs has extended to include activities that affect the improvement of universities more generally. Research is the activity that allows universities to be placed in international rankings, and leadership is what guides and realizes the overarching institutional goals of universities.

Final results

We have combined the results of the two CA analyses for each of the 40 universities analysed. That is, each university is characterized by the typology that best describes it in each analysis and then the universities are grouped according to duration (Table 5), suggesting different university models. The models identified here document the diversity of EDUs, indicating a wider scope of practice than traditionally undertaken in Spanish universities.

Table 5.

From the information in Table 5, we are able to define four different EDU models that operate in the Spanish universities in our sample. These models describe

current practice, but they also indicate a developmental path that some EDUs have already embarked on, which may represent a range of EDU development.

- Model 1. A traditional model that focuses on instructional development. These EDUs offer short duration courses (up to 20 hours) that predominantly engage in activities related to technology, and planning and teaching-learning strategies. This model contains the largest number of EDUs, making up 37.5% of our sample.

- Model 2. A transition model that focuses on instructional and professional development. These EDUs primarily run medium duration courses. They deal with a range of issues, and no particular issue predominates. This type is 32.5% of our sample.

- Model 3. A transition model that focuses on research. EDUs in this model stand out for offering long duration courses (50-100 hours) and preferring to deal with issues related to research; 4 of the 7 universities stand out in this regard (overall the proportion of research courses is 21%, compared to 26% for planning and strategies). EDUs in this model constitute 17.5% of our sample.

- Model 4. An early stage organizational development model. These EDUs stand out due to having more very long duration courses than average. The range of topics is diverse, but activities related to planning and strategies and educational technology are much less important. Programs that promote leadership and institutional development appear. These EDUs represent 12.5% of the sample studied.

Discussion and preliminary conclusions

This paper describes the landscape of educational development in Spanish universities and it captures the organizational and functional nature of EDUs, and the educational development programs currently offered. The results are generalizable, as our sample represents 88% of all public universities in Spain.

The Institutes of Educational Sciences (IESs) that were created in 1970 following the General Education Act are the forerunner of today's EDUs. In structural terms, 29 EDUs have been created (under a variety of names and supervised by different institutional offices), and 16 IESs have been redefined and fulfil new functions. The spread of both external and internal quality assurance systems may have been an important factor underlying this shift.

The practice of organizing short duration courses aimed at training faculty in certain teaching skills has been dominant since that starting point over 40 years ago, but our study shows that gradual changes have been occurring over recent decades. We see that Spanish EDUs are gradually shifting towards more diverse and comprehensive actions and stances:

- Courses of medium, long and very long duration are being offered, with the very long duration courses being mostly geared toward the professional development of novice academics (78% of universities).

- There are indications of diversification in terms of the populations that these courses target: academics, administrative staff and students.

- Activities directed toward professional, organizational, and strategic educational development have started to appear.

These changes, which are similar to those observed in other countries, are still not very

widespread, however, and they do not affect universities more generally.

By applying correspondence analysis techniques to the analysis of the duration and content of the courses run by each EDU, each university is positioned in relative terms. Combining the results of these analyses allowed us to define clusters of universities that exhibit similar behaviour and to synthesize those clusters into four models. Our analysis shows that the predominant model, Model 1 (courses that run for less than 20 hours and focus on topics related to technology, and planning and teaching-learning strategies), is going through a process of diversification and acquiring ways to respond to a concept of professional development that is more holistic. Models 2 and 3 address the improvement of both teaching and research, and they are more differentiated (e.g. they support all stages of an academic career). Model 4 is more comprehensive in that it addresses the larger mission of universities. Despite the fact that the move away from Model 1 is not yet widespread, it is gaining in importance as it slowly transforms into a genuine movement.

From our perspective, this trend will become more established and widespread as the forces that push Spanish universities and EDUs to move towards more strategic positions continue to influence and strengthen quality improvement policies. The role that European and Spanish quality agencies currently play is key to understanding this dynamic. At the European level new standards that ask universities to ensure the competence of their teachers and apply fair and transparent processes for staff recruitment and development have been established (ENQA, ESU, EUA & EURASHE: 2015). In Spain such directives have materialized in the form of new procedures for creating, recognizing, accrediting and monitoring universities (Real Decreto 420/15), and in new bases for hiring and accrediting Spanish university teaching staff (Real Decreto 415/2015). This last item in particular establishes, for the first time, explicit

criteria and evaluation gauges for teaching, which are essential for promotion. The high level required by these standards will bring about, in our opinion, a reorientation in EDUs such that they will have to provide support for academic careers at all stages. Value is now placed on criteria that previously had not been recognized, such as participation in teacher training programs, leadership activities, and publications that have an impact on the field of teaching and learning within a discipline.

Our approach clearly has limits since it is based on information that is publicly available on official university websites. The use of more qualitative techniques that are based on surveys and interviews would certainly reveal more subtle and profound aspects about the nature of the transformations taking place in Spanish EDUs. However, given that little is known about the issues involved, our study is intended to serve as a first step in this line of inquiry, providing an overview of the status of Spanish EDUs.

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Table 1. Number and percentage of courses by duration in Spanish EDUs

Course duration	No. of Courses	Percentage
Short	1279	83%
Medium	206	14%
Long	31	2%
Very Long	21	1%

Table 2. Universities that offer integrated programs by content

	No. of universities	Percentage (out of 35)	Percentage (out of 45)
Integrated programs (Total)	35		78%
Novice Faculty Training	23	66%	51%
Faculty Training and Updating	19	54%	42%
Institutional Development and Leadership	5	14%	11%
Research Training	3	9%	7%
No program offered	10	29%	22%

Table 3. Educational development by Area

		No. of courses	%
Individual level / **Instructional development**		**904**	**56%**
Planning & strategies for Teaching-Learning (including tutoring and assessment)		422	26%
Educational technology		482	30%
Professional development		**596**	**37%**
Research		341	21%
Personal development		213	13%
Health and safety		42	3%
Organisational development		**116**	**7%**
Academic leadership		82	5%
Quality		34	2%
Total courses		**1616**	**100%**

	No. of universities	% Total (of 45)
Institutional development		
Institutional development program	12	27%
Teaching innovation groups	18	40%
Calls for innovation projects	30	67%
Teaching innovation seminars	17	38%
Awards for innovation or excellence in teaching	6	13%

Educational development — Individual level — Strategic level — Courses — Other actions

Note: We have counted the total number of courses run in each category, regardless of duration (but always less than 50 hours).

Table 4. Classification based on a Correspondence Analysis: Dimensions of the universities by course contents

Dimension 1		Dimension 2		Dimension 3		Dimension 4		Dimension 5	
34.3%(*)		24.6%(*)		17.9%(*)		13.1% (*)		6.2%(*)	
Leadership/ No leadership		Technology/ Plan&Strategies		Research/ Plan&Strategies		Health&Safety/ Research		Personal Develop./ Quality	
U15	L	U36	T	U16	R	U11	HS	U21	PD
U27	L	U38	T	U17	R	U23	HS	U29	PD
U3	L	U24	T	U8	R	U37	HS	U40	Q
U33	L	U26	T	U20	R	U30	R		
U25	L	U16	T	U28	R	U19	R		
U10	NL	U7	T	U14	PL	U22	R		
U13	NL	U9	T	U32	PL	U12	R		
		U1	T	U39	PL				
		U6	PL	U18	PL				
		U4	PL	U5	PL				
		U34	PL	U35	PL				
				U31	PL				

Note: (*) % of total variance explained for each dimension. Training activities that are above the average: L (Leadership), T (Technology), PL (Planning &Strategies), R (Research), PD (Personal Development), HS (Health & Safety) and Q (Quality). NL indicates Leadership activities that are below the average. U2 is not well represented in any dimension and U16 appears in Dimensions 2 and 3.

Table 5. Classification based on Correspondence Analysis: University by course duration and University by course content area

Duration: Short	Content Areas	Duration: Medium	Content Areas	Duration: Long	Content Areas	Duration: Very long	Content Areas
U3	L	U4	PL/L	U5	PL	U2	L/PL
U7	**T**/Q	U6	PL/PD	U8	**R**	U23	HS/PL
U9	**T**	U11	HS/PL	U13	**R**	U24	T/PD
U16	**T**/R	U12	R	U14	PL	U27	L
U19	R/**PL**	U15	L	U20	**R**	U38	T
U21	PD	U17	R/PD	U30	**R**		
U32	**PL**	U25	L	U35	PL		
U33	L	U28	R/PD				
U34	**PL**/NL	U29	PD				
U36	**T**	U37	HS/PL				
U39	**PL**	U1	T				
U40	**PL**/Q/**T**	U18	PL				
U26	**T**/NL	U22	L/PL/R				
U31	**PL**						
U10	**PL**/NL						

Note: Content areas that are above the average: L (Leadership), T (Technology), PL (Planning & Strategies), R (Research), PD (Personal Development), HS (Health & Safety) and Q (Quality). NL indicates that Leadership is below the average. In bold, content areas with a high frequency in the group.

Table 6. Educational development units and their functions for 45 public universities in Spain. The 40 numbered universities constituted the subsample for the Correspondence Analyses.

UNIVERSITY	UNIT	FUNCTIONS
U1-ALICANTE	ICE	TIQ
U2-ALCALÀ HENARES	ICE	TIQ, online teaching, audiovisual services
U3-ALMERÍA	"Unidad de formación del profesorado"	TIQ
U4-AUTÒNOMA BARCELONA	"Unidad de formación e innovación docente"	TIQ
U5-AUTÓNOMA MADRID	"Programa de formación docente / Unidad de calidad y formación"	TIQ, predoctoral training, languages
U6-BARCELONA	ICE	TIQ, leadership, languages
U7-BURGOS	"Instituto de Formación e Innovación Educativa"	TIQ
U8-CADIZ	"Unidad de Innovación Docente"	TI, teaching technologies
U9-CANTABRIA	"Área de Innovación Educativa"	TI, virtual campus, EU convergence, OCW
CASTILLA LA MANCHA	"Unidad de Innovación Educativa"	TIQ
U10-LA CORUÑA	"Centro Univ. de formación e innovación educativa"	Training, guidance, diversity
U11-CÓRDOBA	"Secretariado de formación permanente"	TIQ, independent study, cultural & volunteer activities
U12-EXTREMADURA	"Servició de Formación y orientación docente"	TI, educational technology
U13-GIRONA	ICE	TI, leadership, occupational health & safety
U14-GRANADA	"Secretariado de Formación y Apoyo a la calidad. Secretariado de Innovación Docente"	TIQ
U15-HUELVA	"Secretariado de formación del profesorado	TIQ, leadership
U16-ILLES BALEARS	ICE/"Instituto de Investigación e	T, postgraduate training, research group

	Innovación educativa"	training
U17-JAEN	"Secretariado en innovación docente y formación del profesorado"	TI
U18-JAUME I	"Unidad de soporte educativo"	TI, orientation for students with special needs
U19-LA LAGUNA	"Unidad de evaluación y mejora de la calidad (Dirección de Formación e innovación docente)"	TIQ
U20-LAS PALMAS	"Área de Innovación Educativa"	TIQ
U21-LEON	"Escuela de Formación e Innovación Docente"	TIQ
U22-LLEIDA	"ICE-CFC Instituto de Ciencias de la Educación-Centro de Formación Continua"	TI, continuing education
U23-MÁLAGA	"Dirección de secretariado de formación del PDI"	TI
U24-MIGUEL HERNÁNDEZ	Programa de formación y mejora docente"	TI
U25-MURCIA	"Centro de formación y desarrollo profesional"	Training for academic staff, administration staff, innovation
U26-OVIEDO	ICE	T
U27-PAÍS VASCO	SAE: "Servicio de Asesoramiento Educativo"	TIQ, leadership
U28-PABLO DE OLAVIDE	"Unidad de formación –PDI"	TIQ, occupational health & safety
POLITÉCNICA CARTAGENA	"Vic. Profesorado e innovación docente"	TI
U29-POLITÉCNICA CATALUNYA	ICE	TI
U30-POLITÉCNICA MADRID	ICE / "Portal servicios de innovación educativa"	TI, monitoring
U31-POLITÉCNICA VALENCIA	ICE	TI, educational psychology support for students

POMPEU FABRA	"Centro de Calidad e Innovación Docente"	TIQ, multilingualism
PÚBLICA NAVARRA	"Área de Innovación educativa/Centro superior de innovación educativa"	Not available
U32-REY JUAN CARLOS	"Unidad de Formación Docente"	TIQ
U33-RIOJA	"Dirección Académica de Formación de profesorado e innovación"	TIQ
U34-ROVIRA I VIRGILI	ICE	TIQ
U35-SALAMANCA	IUCE "Instituto Universitario de Ciencias de la Educación"	TI, doctorate, multimedia
U36-SANTIAGO COMPOSTELA	"Programa de Formación e innovación docente"	TI
U37-SEVILLA	"Secretariado de Formación y evaluación (ICE)"	T, assessment, occupational health & safety, multilingualism
U38-VALENCIA	"Secretariado de Formación permanente e innovación educativa"	TI, multimedia services
VALLADOLID	"Investigación en Ciencias de la Educación (no se localiza)/Centro Buendía"	T, cultural activities
U39-VIGO	"Área de Formación e Innovación Educativa"	TI, students
U40-ZARAGOZA	ICE	TI, students, governing board guidance

Note: UNIT: Due to the difficulty inherent in translating the names of the different EDUs, we have opted to leave the names in Spanish/ ICE: Institute of Educational Sciences (in Spanish)/ T: training, I: innovation, Q: quality

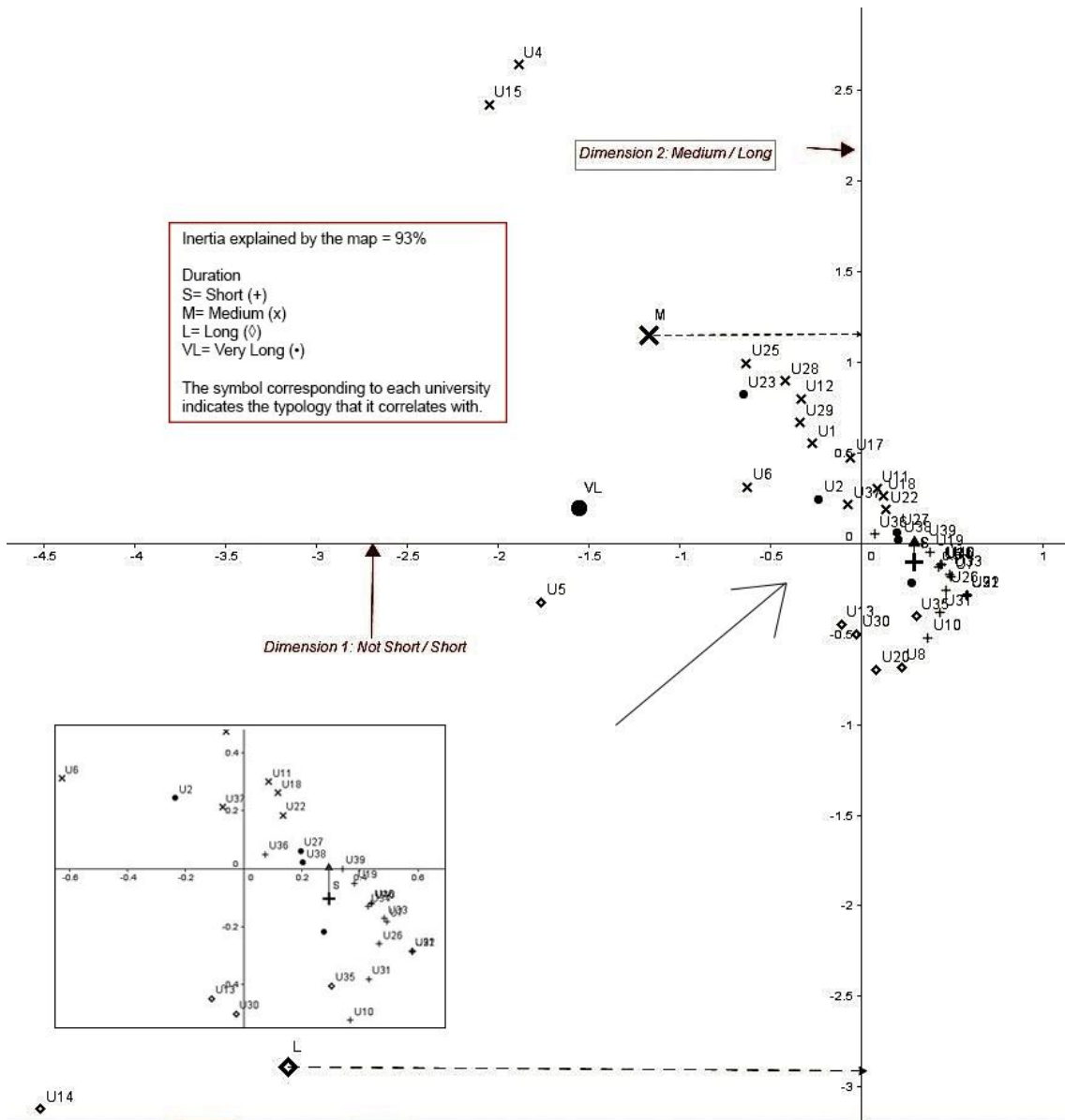Figure 1. CA of cross-tabulation of university with course duration: Dimension 1-Dimension 2.

Figure 2. CA of cross-tabulation of university with course duration: Dimension 1-Dimension 3.
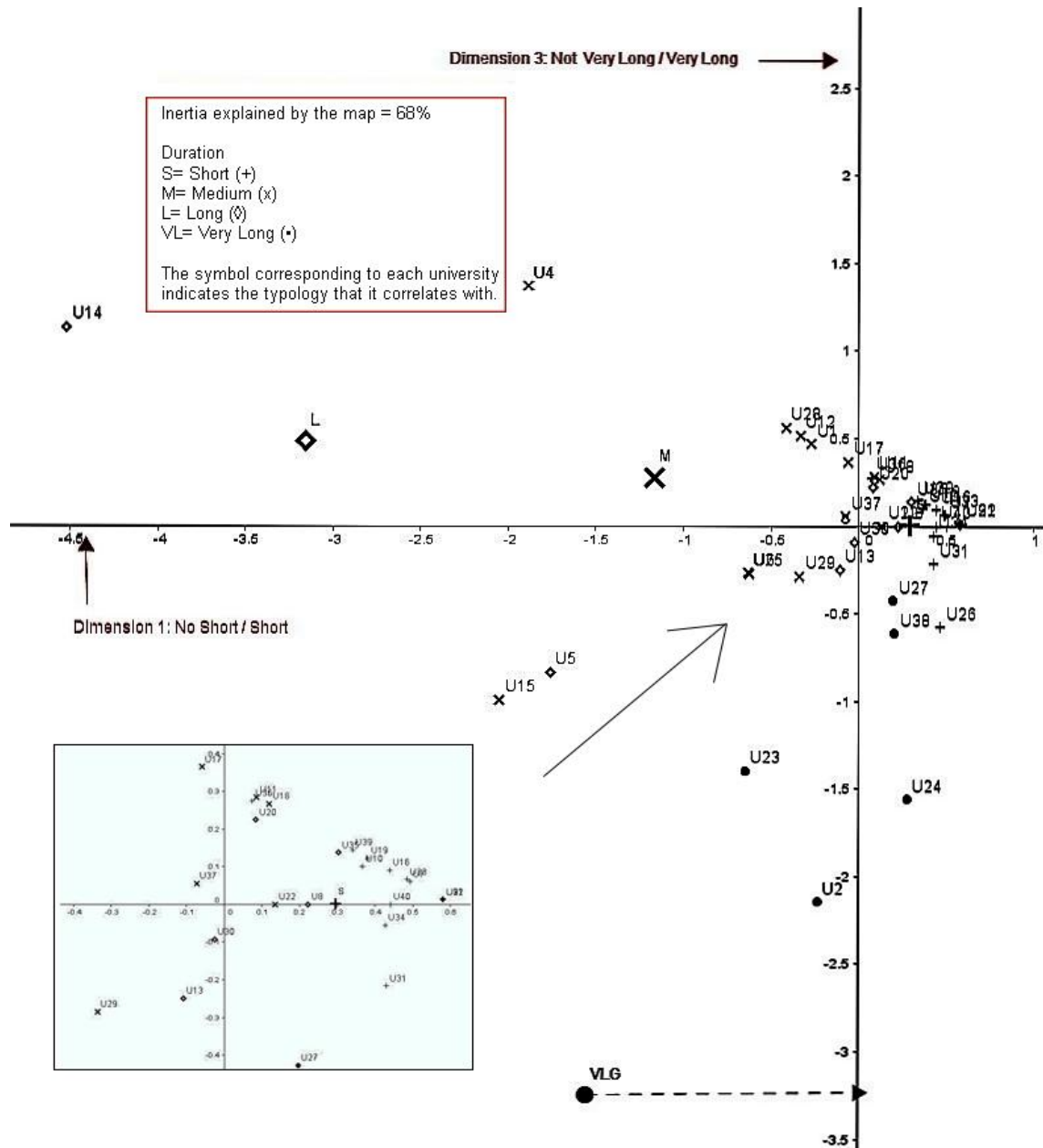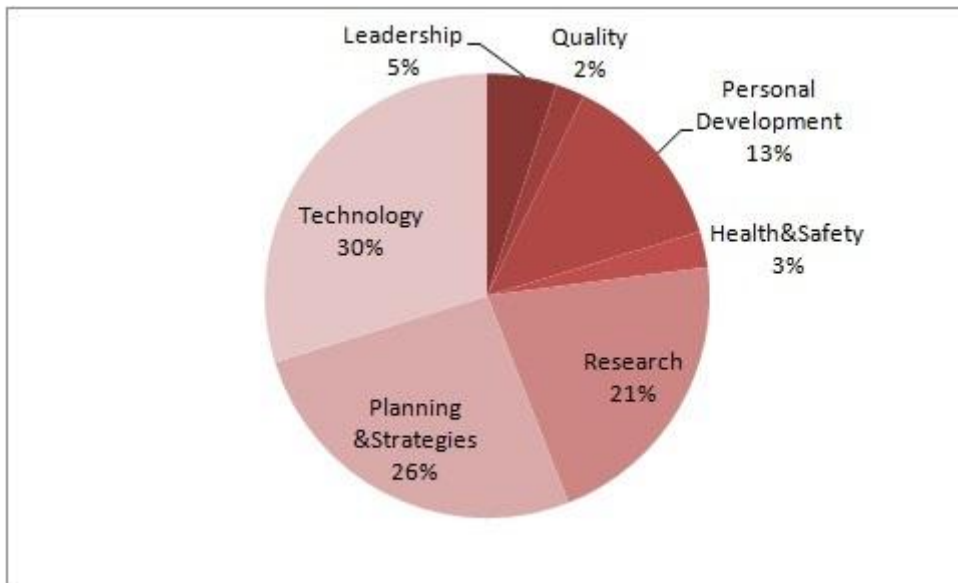
Figure 3. Percentage of courses by contents.

Figure 4. CA of cross-tabulation of university with course contents.