

EVALUATING IMPACTS OF UNIVERSITY COOPERATION FOR DEVELOPMENT  
FROM THE VOICE OF THE SOUTH

*EVALUANDO LOS IMPACTOS DE LA COOPERACIÓN UNIVERSITARIA AL  
DESARROLLO DESDE EL SUR*

*María José Vázquez de Francisco*

Fundación ETEA para el Desarrollo y la Cooperación  
Universidad Loyola Andalucía  
mjvazquez@uloyola.es

*Mercedes Torres Jiménez*

Universidad Loyola Andalucía  
mtorres@uloyola.es

*Pedro Caldentey del Pozo*

Fundación ETEA para el Desarrollo y la Cooperación  
Universidad Loyola Andalucía  
pcaldentey@uloyola.es

*Olexandr Nekhay*

Universidad Loyola Andalucía  
onekhay@uloyola.es

Recibido: marzo de 2017; aceptado: mayo de 2017

ABSTRACT

University Cooperation for Development is an important part of the “third mission” of universities. From a capability approach, this study investigates the perception that Latin-American university teachers, researchers and staff have as recipients of aid, about the effects of long-term university cooperation programmes with universities from the North. Using a combination of qualitative (Colaizzi) and quantitative (Analytic Hierarchy Process) methods, an assessment of university cooperation activities was obtained, and a categorisation and prioritisation of impacts was found. This impact evaluation could provide an orientation for future more effective programmes of university cooperation, from the point of view of aid recipients.

*Keywords:* Higher Education; University Cooperation for Development; Human Development; Impact Evaluation; Mixed Methods.

## RESUMEN

La Cooperación Universitaria al Desarrollo constituye una parte importante de la “tercera misión” de las universidades. Este estudio investiga, desde un enfoque de capacidades, la percepción que tienen las universidades latinoamericanas, como receptoras de ayuda, sobre los efectos a largo plazo de los programas de cooperación para el desarrollo que mantienen con universidades del Norte. Utilizando una combinación de metodologías cualitativa (método de Colaizzi) y cuantitativa (Analytic Hierarchy Process), se ha obtenido una valoración de los distintos tipos de actividades propios de la cooperación universitaria, y se han categorizado y priorizado los impactos de las intervenciones. Esta evaluación de impacto puede orientar futuros programas de ayuda universitaria más eficaces, desde el punto de vista de los receptores de la ayuda.

*Palabras clave:* Educación superior; Cooperación universitaria al desarrollo; Desarrollo humano; Evaluación de impacto; Métodos mixtos.

*JEL Classification:* F55, I23, I38, O19, O54.



## 1. INTRODUCTION.

Education is a component of human development. Hence, it is widely accepted that well-being is not only a question of income but also a matter of education and health.

Many authors have broadly studied the multidimensionality of poverty (Anand and Sen, 1997; Tsui, 2002; Atkinson, 2003; Bourguignon and Chakravarty, 2003; Alkire and Foster, 2007), where education, or its absence, plays a prominent role.

The Human Development Index (UNDP, 1990) and the Multidimensional Poverty Index (Alkire and Foster, 2007) consider the presence and absence, respectively, of a minimum level of education a factor of human development and an indicator of poverty. However, the level of primary or secondary education is usually used to assess these indicators as if the poor never progress to tertiary education.

The universities have followed an institutional theory of change to strengthen human and organizational resources as a means to improve their role as development agents in their respective countries, progress their people and societies, increase the size of the middle class, provoke social cohesion, and improve democracies (World Bank, 2002; Sebastián, 2004).

Using mixed methods of evaluation (Colaizzi and AHP) this study explores and assesses the effects of University Cooperation for Development (UCD) in the long run and its contribution to institutional and human development in nineteen countries in Latin America. We investigated the perceptions of teaching, research and administrative staff about university cooperation programmes. They explained and valued these activities and prioritised the impacts that these activities had on people (as individuals) and the university (as an institution). The conclusions of this study could influence UCD programmes in the future to be more effective and align cooperation policies for a better development.

## 2. CLARIFYING THE RELATIONSHIP BETWEEN UNIVERSITY COOPERATION AND DEVELOPMENT.

According to the OECD (1998), expanding the knowledge base has been a clear determinant of long-term growth rates in developed economies. This statement is valid for both developed and developing countries. Universities play a key role in this arena, not only because of their impact on local econo-

mies (Stokes and Coomes, 1998; Johansen and Arano, 2016), but also as development agents (Boni and Walker, 2016).

According to Kofi Annan, former Secretary General of the United Nations, universities play an important role in development:

*The University must become a primary tool for Africa's development in the new century. Universities can help develop African expertise; they can enhance the analysis of African problems; strengthen domestic institutions; serve as a model environment for the practice of good governance, conflict resolution and respect for human rights, and enable African academics to play an active part in the global community of scholars (Cloete et al, 2011).*

In the opinion of the World Bank (2002), “tertiary education contributes to building up a country’s capacity for participation in an increasingly knowledge based world economy”. This statement applies to both developed countries and developing or less developed nations (East, Stokes and Walker, 2014). Otherwise, poor countries would be doomed to play in a “second league” and never take part in the knowledge society, which would leave them with agricultural production or the *deployment of maquilas* as their only options for participating in global economy. They would remain within the margins of the global economy without any opportunity to compete in an interconnected world.

*While universities undoubtedly contribute to social reproduction (and hence to current unfair global arrangements or unequal societies), they also open spaces for public-good development contributions through the critical and emancipatory power of knowledge and reason; the usefulness of knowledge for society; and equality, citizenship and democracy. They can foster intrinsic human flourishing as well as human capital formation, so that development is inclusive, human and well-being led (Boni and Walker, 2016).*

International activity is an expected part of university management (Sebastián, 2004; Chan, 2004; De Wit, 2005). They have the natural necessity and mission of spreading knowledge in and out of institutions while emphasising the transfer of knowledge through education, research and social projection (Kearney and Lincoln, 2013). Nonetheless, it is necessary to make a distinction between university internationalisation, international cooperation and university cooperation for development.

Effectively, every university has a vocation of internationalisation to enrich its academic targets. To do this, universities maintain international bidirectional and symmetric relations with peer universities and research centres to improve the quality of its education and research as well as its impact; this is called international university cooperation *sensu stricto* (Sebastian, 2004).

Another method of university internationalisation is through University Cooperation for Development (UCD). This option and its purpose is different. It is grounded on a base of solidarity, unidirectional and asymmetric relations with non-peer universities, research centres or other types of organizations, such as public institutions, private productive organizations, and non-governmental organisations (NGOs). The objective of this activity is to support and enhance the other institution, which is generally a university, while transferring knowledge and skills to contribute to greater wellbeing in developing countries.

UCD uses a variety of modes and paths to reach the intended objectives, including the following activities (CEURI, 2000; Sebastián, 2004):

- Capacity building for undergraduates and postgraduates.
- Capacity building for teaching, research and administrative staff.
- Support for research about critical development problems, providing and transferring knowledge and technology.
- Joint technical assistance and advisory services for public institutions in the "partner country."
- Cooperation in social projects for vulnerable population.
- Funding for equipment.

A widely used methodology among northern tertiary education institutions to assess this type of cooperation is to provide scholarships for capacity building and research support programmes in donor and partner countries (Beneitone *et al.*, 2003; Sebastian, 2003, 2004; Arias and Simón, 2004; Arias and Molina, 2006, 2008; Unceta, 2006; Boeren, 2012).

All of them are means for strengthening human resources and university institutions and are geared towards the improvement of tertiary education systems, which may increase the size of the middle class and improve labour and living conditions and democratic systems in developing countries (Vázquez *et al.*, 2015a).

University cooperation for development has not been studied in detail by academics; thus, few academic publications address this subject (Sebastián, 2000). Surprisingly, this is not consistent with the fact that approximately one quarter of the total education aid portfolio has been dedicated to projects in tertiary education (World Bank, 2002). This multilateral institution also says, "the role of tertiary education in the construction of knowledge economies and democratic societies is more influential than ever".

As stated by the Development Assistance Committee (DAC) database, post-secondary education has always been the biggest recipient of Official Development Assistance (ODA) for Education, followed by basic education, "level unspecified" (of education) and secondary education. In recent years, basic education has been declining progressively and has been overtaken by "level unspecified". Secondary education has increased but still remains as the "forgotten" area of ODA for Education (Muñoz, 2014; Hernández, 2014).

Post-secondary education includes two DAC Creditor Reporting System (CRS) codes: Higher Education (11420) and Advanced Teaching and Mana-

gerial Training (11430); 95% of the total of post-secondary education aid is included in the first one (Higher Education) (DAC, 2015).

Scholarships and student costs in donor countries are the leading destination of funds in post-secondary education assistance. The OECD database only includes these data from 2006. However, the data are sufficient to confirm that this type of official aid is the most important in post-secondary education; it makes up to 72% of the total.

Consistent with Spanish government data (Ministerio de AA.EE. y Cooperación, 2017), a total amount of 217.9 million euros was funded or channelled by Spanish universities for UCD activities in the period 2008-2014, and a 46.56% was provided for Latin America. This support is not only economic but is also technical. If we address the social returns of this type of cooperation, the effects and impacts on human and institutional development are particularly cost-effective.

### 3. WHAT ARE WE LOOKING FOR?

The general hypothesis that underlies this research is that northern university cooperation programmes have had a variety of impacts on their partners in developing countries. Furthermore, partner universities can prioritise these effects and value the type of UCD activities in which they prefer to participate considering their impact. If they had to select northern partners for their UCD programmes between some alternatives, they would select those which best meet their needs and expectations.

The specific objectives of this study are:

- To obtain a categorisation of impacts on development that Latin-American recipients of aid perceived from UCD programmes (George, 2015) (Phase 1).
- To prioritise those impacts and value the influence of different type of UCD activities on Latin-American university population (as individuals) and universities (as institutions) (Phase 2).
- To contribute to a better knowledge of the impact of aid on higher education, in the context of the 2030 Agenda for Sustainable Development and the Sustainable Development Goal number 4: "Ensure inclusive and quality education for all and promote lifelong learning".

A further use of this research could be to evaluate different models (alternatives) of UCD programmes and to connect the viewpoints of demand (recipient's necessities) and supply (donor's cooperation programmes).

### 4. METHODOLOGY AND RESEARCH DESIGN.

Quantitative methodologies of impact evaluation (Gertler *et al.*, 2011) sometimes do not attempt to capture important qualitative effects (Kusters, 2011; Guijt, 2013) that this long term assistance embodies. For this reason,



an initial exploratory study was conducted for categorising impacts. The study was then scaled in a second phase through a survey in Latin America, so that statistical data could be compiled to measure the scale of the phenomenon.

#### 4.1. PHASE 1. QUALITATIVE APPROACH: A CATEGORISATION OF IMPACTS OF UCD USING COLAIZZI'S METHOD.

As a first step, we systematised the experience (Martinic, 1984; Tapella and Rodríguez, 2014a, 2014b) and perceptions of 25 key Latin-American informants about long-run university cooperation programmes. As we said before, Latin America received 46.56% of Spanish UCD funding between 2008 and 2014. We chose Nicaragua for the allocation of experts because it was the largest Latin-American recipient of Spanish UCD funding per higher education student during the last decade (Ministerio de AA.EE y Cooperación, 2017; UNESCO, 2016).

Based on the approach that "liberty is given to people when they are provided with basic capabilities to use for their priorities and welfare" (Sen, 2000), we used a retrospective methodology to systematise the impacts (Selener, 1996; Jara, 1994, 2001, 2012; Tapella and Rodríguez, 2014a, 2014b). The participants were led through the process with a narrative of their personal and institutional experience and the learning that they had experienced as they participated in university cooperation activities. They were not asked about specific outputs of those activities but rather about long-term experiences regarding the following aspects: (1) the personal capabilities that had been encouraged by the university cooperation activities; and (2) the institutional dimensions that had been strengthened. To facilitate the process, we asked them to think separately about economic and qualitative social, personal or institutional impacts. The semi-structured interviews were designed to identify the impacts or effects of UCD, asking the following questions:

- What UCD is meant to achieve.
- Positive impacts that each individual had personally experienced or that he or she perceived that people had received.
- Positive impacts on the tertiary education institution in terms of organisational changes caused by the UCD over time.
- Gaps or weaknesses of UCD programmes.

In this phase, 25 in-depth semi-structured interviews were conducted with key expert informants (deans, provosts, directors of research centres, graduate and postgraduate directors and degree coordinators and former university managers, including cooperation programme managers; 10 women and 15 men). As they had personally participated and managed UCD programmes for years, we considered them as key valid informants.

The interviews were transcribed, and the transcripts were analysed using content analysis following the Colaizzi's method (Shosha, 2012) for describing

a complete phenomenon. Each transcription was analysed repeatedly until all relevant information was categorised.

We used a classification of social impacts of education developed by Muñoz *et al.* (2003) for UNESCO Latin America as a reference for categorising the answers. According to this method, education has intrinsic effects on knowledge and skills, attitudes, values, equal opportunities, retention and completion rates; and it has extrinsic effects on the social, economic, institutional and demographic spheres. World Bank (2002) describes a similar categorisation. However, we modified and widened the model during the research process based on the answers of the interviewees.

The categories and quotations (statements of concepts and ideas) were quantified in frequency distributions for assessing the extent that each effect or impact had affected the people or the institution. The categorised impacts were named and identified with specific labels for a better understanding of the classification.

#### 4.2. PHASE 2. QUANTITATIVE APPROACH: A PRIORITISATION OF IMPACTS USING THE ANALYTIC HIERARCHY PROCESS AND A VALUATION OF INFLUENCE OF UCD ACTIVITIES.

In step two of the study, we used the Analytic Hierarchy Process (AHP) methodology to derive weights from pairwise comparisons of impacts categorised in step one. As a result, we obtained a prioritisation of effects of UCD and an assessment of their importance for recipients. In addition, we asked for a valuation of the influence that different types of UCD activities have on individuals and the institution.

The AHP belongs to the family of multicriteria decision-making techniques developed in 1980 (Saaty, 1980). Since then it has been applied in an important number of applications (Vaidya and Kumar, 2006). The 1-9 scale (1 means similar preference; 9 means absolute preference of one object of evaluation over other) is used to reflect the preferences.

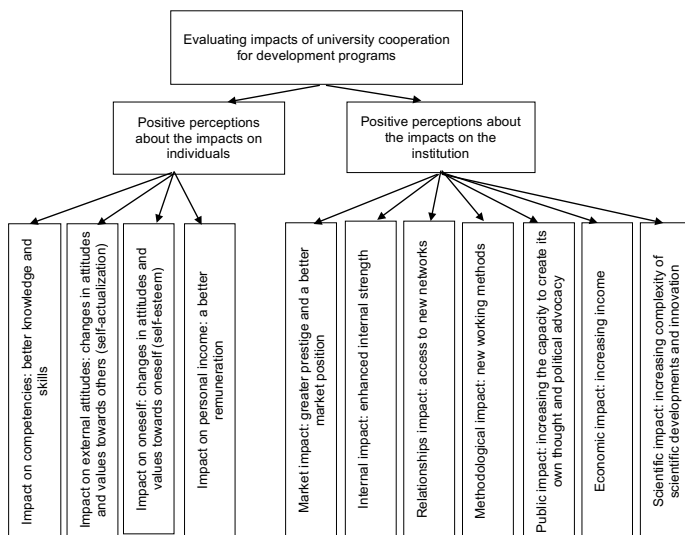
The answers collected via the typical AHP questionnaire are introduced in reciprocal matrices. Later the principal eigenvector method is used to derive the priorities vector (Saaty, 2003). There is the possibility to check the consistency of the answers collected during the personal interviews. This consistency check should be performed through the Consistency Index (CI). In all the cases CI should be equal to or less than 0.1, meaning that 10% inconsistency is the limit of acceptability (Saaty, 1990).

Initially the AHP was proposed as a single decision-making technique. However, after several successful applications this technique was extended for the group decision-making cases. The most commonly used procedures to deal with group decision-making in AHP are: Aggregating Individual Judgements (AIJ) and Aggregating Individual Priorities (AIP) (Forman and Peniwati, 1998). In the present study, the AIJ procedure is used. Forman and Peniwati (1998) suggest the use of the geometric mean as a Pareto Principle satisfied in the case of AIJ procedures.



The Figure 1 shows the hierarchical structure elaborated by key informants about the impacts and effects of UCD programmes. This hierarchy is a result of the exploratory study presented above. Normally hierarchical structure is comprised at least of three levels: 1) overall study goal; 2) evaluation criteria or objectives; and c) alternatives to be evaluated. However, at the present stage of the study only evaluation of criteria is performed and it is separated into two levels, thus alternatives level is a further step. The answers were collected through a web-based survey using a typical AHP questionnaire.

FIGURE 1. HIERARCHICAL STRUCTURE FOR EVALUATION OF IMPACTS AND EFFECTS OF UCD.



Source: Elaborated by the authors.

Furthermore, Latin-American informants were asked for additional relevant impacts not detected in phase 1 and about the extent (valuation between 0-100) of the influence of UCD activities on individuals and universities. We applied Paired Samples Test for detecting significant differences among means.

The population of the study are the Latin-American teaching, research and administrative staff of universities and the unit sampling is the university. According to Universia (2017), there are 1582 higher education public and private institutions in Latin America. Due to the large size and dispersion of the population, a cluster sampling of universities in each country was done. In addition, we did a stratified sampling by ownership (public and private) in

each country. Finally, we chose a random sample of 12665 individuals from the selected universities.

The questionnaire was initially sent to a sample of 12665 individuals, with the possibility of forwarding ("snow-ball" methodology) for expanding it. The results obtained were 1.388 answers (54.2% men, 45.8% women) from 39 universities. A higher number of responses came from Mexico (20.2%), Costa Rica (17.5%) and El Salvador (10.2%).

## 5. RESULTS AND DISCUSSION: WHAT REALLY MATTERS TO OUR SOUTHERN PARTNERS

A long term cooperation process should be sufficient to determine what our colleagues from southern universities appreciate from UCD. Some key findings of this study are presented in Tables 1, 2 and 3.

Table 1 contains the results of phase one. A list of positive impacts of UCD on individuals and higher education institution was obtained from the 25 transcriptions.

TABLE 1. CATEGORISATION OF PERCEIVED EFFECTS OF UCD (COLAIZZI).

Categories	Impacts/Effects	% of quotations
Positive perceptions about the impacts on individuals	Impact on competencies: better knowledge and skills	56.7%
	Impact on external attitudes: changes in attitudes and values towards others (self-actualization)	26.8%
	Impact on oneself: changes in attitudes and values towards oneself (self-esteem)	11.0%
	Impact on personal income (a better remuneration)	5.5%
	TOTAL (164 responses)	100%
Positive perceptions about the impacts on the institution	Market impact: greater prestige and a better market position	35.1%
	Internal impact: enhanced internal strength	22.9%
	Relationships impact: access to new networks	12.2%
	Methodological impact: new working methods	10.2%
	Public impact: increasing the capacity to create its own thought and political advocacy	8.8%
	Economic impact: increasing income	6.3%
	Scientific impact: increasing complexity of scientific developments and innovation	4.4%
	TOTAL (205 responses)	100%

Weaknesses of UCD (negative ideas)	Short-term results conditioned cooperation: geared towards products and not towards impact	52.8%
	Lack of relevance and some opportunism	26.4%
	Lack of equal opportunities	9.7%
	Lack of research support	6.9%
	Ideologised cooperation: working on effects but not on causes	4.2%
	TOTAL (72 responses)	100%

Source: Elaborated by the authors.

The third column indicates the quantification of repetitions of similar ideas for each category (Colaizzi's method) expressed by the experts. This is considered an approximation to the importance of each idea, which should be studied in detail in phase 2. We also categorised some important negative ideas that the interviewees explained, which are worthy of consideration, but they were not included in phase 2.

Table 2 contains the results of phase two, following AHP method. We obtained weights from pairwise comparisons of impacts categorised in step one. The result is a prioritisation of perceived positive impacts of UCD expressed by the Latin American university staff, using a multicriteria decision-making technique:

- Between individuals and the institution.
- Within the category of positive effects on the individuals.
- Within the category of positive effects on the institution.
- Between both categories (individuals and institution) together.

Finally, Table 3 contains the valuation and ranking of UCD activities during the interviews and from the Latin-American survey results. The surveyed people valued ranked activities for research support at the top of influence on individuals and higher education institutions in Latin America. In the second position is capacity building for lecturers and researchers. These activities are closely connected with the two impacts preferred by the respondents: impact on competences, knowledge and skills and impact on a better and innovating scientific production. We also tested that there were the most significant differences among means (Paired Samples Test) for these two types of activities with the rest of UCD activities, since Sig. (2-tailed) was lower than 0.05.

TABLE 2. PRIORITISATION OF POSITIVE EFFECTS OF UCD (AHP).

Categories	Impacts/Effects	Weight between the criteria (%)	Weight within the criteria (%)	Ranking within the criteria (AHP)	Weight among the subcriteria (%)	Ranking among the sub-criteria (AHP)
Positive perceptions about the impacts on individuals	Impact on competencies: better knowledge and skills		0.4263	1	0.2856	1
	Impact on external attitudes: changes in attitudes and values towards others (self-actualization)		0.2498	2	0.1674	2
	Impact on oneself: changes in attitudes and values towards oneself (self-esteem)		0.1837	3	0.1231	3
	Impact on personal income (a better remuneration)		0.1402	4	0.0939	4
	TOTAL	0.67	1			
Positive perceptions about the impacts on the institution	Market impact: greater prestige and a better market position		0.1691	4	0.0558	8
	Internal impact: enhanced internal strength		0.1068	5	0.0352	9
	Relationships impact: access to new networks		0.1720	3	0.0568	7
	Methodological impact: new working methods		0.1722	2	0.0568	6
	Public impact: increasing the capacity to create its own thought and political advocacy		0.0949	6	0.0313	10
	Economic impact: increasing income		0.0632	7	0.0209	11
	Scientific impact: increasing complexity of scientific developments and innovation		0.2218	1	0.0732	5
TOTAL	0.33	1				
TOTAL	1			1		

Source: Elaborated by the authors.

TABLE 3. PERCEPTIONS ABOUT THE INFLUENCE OF UCD ACTIVITIES ON INDIVIDUALS AND INSTITUTIONS.

Activity	Mean	Ranking
Capacity building for undergraduate and post-graduate students	71.88	4
Capacity building for lecturers and researchers	72.91	2
Capacity building for administrative human resources	68.64	6
Research support measures	74.41	1
Collaboration with other non-university institutions (consulting and technical support)	69.75	5
Outreach activities (e.g., social programs for vulnerable population)	72.20	3
Improvement of infrastructures and equipment	65.89	7

Source: Elaborated by the authors.

### 5.1. UNIVERSITY COOPERATION FOR DEVELOPMENT: FOR PEOPLE OR FOR INSTITUTIONS?

When the key subjects in the systematisation were asked about what UCD is meant to achieve, everyone mentioned impacts that referred to collective (institutional) and individual dimensions.

Any UCD model should normally have two targets as agents of development: individuals (as a means) and the higher education institution. When applying AHP decision-making methodology, the impacts on individuals had an overall weight of 67%, while impacts on the university obtained a weight of 33%. This means that recipients of UCD appreciated more individual than institutional impacts. This result is consistent with the ranking of UCD activities, where Research support and Capacity building for lecturers and researchers is at the top.

### 5.2. POSITIVE PERCEPTIONS OF UCD ABOUT IMPACTS ON INDIVIDUALS

Strengthening human capital is a means for strengthening university systems and, by extension, for developing societies. Thus, one of the most impor-

tant categories that we were interested in was the positive impacts on individuals.

The interviewees mentioned 34 different impacts on individuals, which we classified into four groups: (1) impact on competencies: better professional knowledge and skills; (2) impact on external attitudes: changes in attitudes and values towards others (self-actualisation); (3) impact on oneself: changes in attitudes and values towards oneself (self-esteem); and (4) impact on personal income.

We obtained a ranking within the criteria of impacts on individuals using AHP. The surveyed people considered that the most important impact of UCD on the people is the impact on competencies, better knowledge and skills, with a preference ratio of 43%. This position is still valid when the sub-criteria are evaluated among the two main criteria. The weight in this case is 29%.

Some of the interesting effects that were mentioned in the first group by the participants (impact on competencies) were:

*Better professional qualifications; acquire better capacities and skills; a better working capacity; to grow professionally; to move up the career ladder; a better capacity for carrying out studies, research or consulting outside the institution; a higher salary; new ways of doing things; a better capacity for carrying out new administrative activities within the institution; higher employability; higher requirements and quality; higher academic and research skills; and a better capacity for carrying out new academic activities within the institution.*

All of these impacts are indicators of increasing professional qualifications, but the weight of the criteria Better remuneration obtained the lower weight, only 14%. Nevertheless, it is also the fourth criteria in the ranking among all the sub criteria.

The second group of personal impacts was Changes in attitudes and values towards others. The weight was 25% within the criteria and 17% among the sub criteria.

Some of the effects that were identified in this group were:

*To recognise other realities, cultures and languages; to obtain a wider world vision; to enhance personal relationships; to commit to topics that are closely related to the reality of "our" countries; help people's understanding; things become relative when you have different references; "you will never be the same"; people from northern universities get a better opinion about people from the south; to give back to society what the institution gave me.*

The third group of impacts (Perceptions about impact on oneself) perceived by Latin-American academics had a preference ratio of 18% and included the following effects:

*To value your strengths (self-esteem); academic recognition by the students, colleagues and university authorities; to develop a dynamic spirit.*

The conclusion of this group of effects is that improving professional qualifications by joining a university cooperation programme contributes to empowering people and increasing self-confidence.

### 5.3. POSITIVE PERCEPTIONS OF UCD ABOUT INSTITUTIONAL IMPACTS

The impacts of the UCD on the institution generated a massive response. The key informants mentioned 44 impacts with a great variability.

We clustered the answers into seven groups of impacts: (1) market impact: greater prestige and a better market position; (2) internal impact: enhanced internal strength, better organization, management and procedures of the university; (3) relationships impact: access to new institutional networks; (4) methodological impact: new working methods; (5) public impact: increasing the capacity to create its own thought, public opinion and political advocacy; (6) economic impact: increasing income; (7) scientific impact: increasing complexity and quality of scientific developments and innovation.

We can observe the results of the ranking and weights of each impact in table 2.

Using AHP for the multicriteria decision-making, the Latin-American academics considered the scientific impact (increasing complexity of scientific developments and innovation) on their universities in the first position, with a ratio of 22% within the rest of impacts in this sub-criteria (7% among all criteria). Considering the environment of competition in this field at a global level, it is possible to conclude that the collaboration of northern universities in this matter is basic for the success of partner universities from the South.

This is closely linked to the impact ranked in the second position, "methodological impact: new working methods". The ratio of this effect was 17.22%, and 5.7% considering the complete list. Some impacts included in this category were:

*New abilities, work methods and know-how through knowledge-transfer; new technologies; ability to work interdisciplinarily.*

Close to impact on methodologies and new working methods was "relationship impact and access to new networks", which received a weight of 17.20%

(5.7% among all effects). The “relationships impact” group included the following effects:

*More and closer relationships with other northern universities; more and closer relationships with other southern universities; new inter-university network projects; a better capacity for dialogue.*

The most repeated impacts during the systematisation were about the effect on the university’s prestige, which we labelled “market impact”. Prestige makes a difference among other competitor universities. It is important to note that the number of universities has grown significantly during the last decade globally and specially in Latin America. Hence, prestige is a key factor of competitiveness at the higher level of education. Nevertheless, the weight of this impact in the multicriteria decision was 16.9% and 5.5% among all the impacts identified. It is at the fourth position in the ranking of institutional impacts. Some of the impacts mentioned were:

*A better market position; a recognition of solid academic and consulting offerings; a recognition of “international quality”; higher visibility and awareness of outreach activities with the cooperation of a northern university; higher quality of offered services; postgraduate programmes were strengthened using foreign brands; better credibility of joint programmes; higher visibility and awareness of post-graduate programmes; a positive factor in accreditation processes; undergraduate students value grades more due to the university cooperation.*

The consequence of many of these impacts is that the university attracts more students, which results in greater revenue. Although this could be an important result, the economic impact obtained the lowest weight in the ranking of impacts on the institution and among all the criteria (2%). This result suggests that universities have more interest in offering a high quality education than in increasing income.

The “internal impact: enhanced internal strength” group, with a ratio of 10.7% within this category, included effects about the internal strengthening of the organisation. Some examples were:

*Capacity to create new academic programmes and areas of research; capacity to create new sophisticated research units; the institution increases its capacity for organizational learning; acceleration of institutional growth processes; better infrastructure; capacity to develop more complex academic activities; a stronger institutional curriculum; and better cohesion of cooperation project teams.*



The final positions in the ranking are for “public impact” and “economic impact”. The weights of these effects are 9% and 6% within this category. As we mentioned before, Latin-American universities do not look at UCD as a source of funding. However, this type of cooperation is particularly cost-effective and has the ability to trigger development processes, as we referred in part two.

#### 5.4. SOME WEAKNESSES OF UCD PROGRAMMES

Although these criteria were not included in phase 2, some negative perceptions about UCD programmes were identified in phase 1. Cooperation assistance is a basic support for many countries, organizations and communities. However, there are also strong critiques about its instruments, methodologies and the northern interests. These may have negative effects on future rankings of UCD programmes.

We clustered these effects into five groups, but there is one that is worth mentioning: short-term results conditioned cooperation, geared towards products and not towards long-term impact.

We consider this idea of special interest because this is one of the most common failures of cooperation, in part caused by the generally accepted methodology for planning cooperation activities, the *logic framework* (NORAD, 1990). It does not help to solve the problem of focusing on short-term operations. In contrast, there are many problems with the use and nature of this planning tool that hinder the long-term impact and process-oriented cooperation (Gasper, 2000; Ferrero, 2003; Vázquez *et al.*, 2015b). A failure mentioned by the interviewees was non-respect for the processes and habits of the South, such as “cooperation is more centred on a few products rather than on institutionalising processes.”

## 6. CONCLUSIONS

An important part of the social impact of a northern university arises from its outreach activities, which commonly cross borders and frequently include UCD with higher education partners in developing or less developed countries. However, there is an information gap about the effects and impacts of this important activity.

This study has provided important information about the impacts and perceptions of UCD programmes on individuals and institutions, using mixed methods of evaluation. It contributes to a better understanding of the extent that Latin-American university staff value their impacts and activities. We grouped the impacts into two main categories: on individuals and on the higher education institution. Applying AHP as multicriteria decision-making methodology, we obtained a prioritisation of impacts with a specific weight for each one and obtained a ranking of university cooperation activities based on the values given by the beneficiaries of aid in the partner countries.

The study revealed that the most important contribution of UCD activities are impacts on the individual's capabilities, knowledge and skills, from the perception of Latin American university staff. However, they have had a clear institutional impact on the scientific performance of Latin-American universities.

A further step in this research could be the study of results specifically for public/private universities, geographical sub-regions, countries, etc. An additional application of the impacts weights could be the construction of an index for evaluating university cooperation programmes. Finally, the ranking of impacts could also guide future decisions of donor universities about where to invest scarce resources when collaborating with partner universities.

## REFERENCES

- Alkire, S. and Foster, J. (2007): "Counting and Multidimensional Poverty Measurement", OPHI Working Paper 7, OPHI, Oxford. <http://www.ophi.org.uk/wp-content/uploads/ophi-wp7.pdf>
- Anand, S. and Sen, A. (1997): "Concepts of Human Development and Poverty: A Multidimensional Perspective", *Poverty and Human Development: Human Development Papers*, United Nations Development Program, on line: <http://clasarchive.berkeley.edu/Academics/courses/center/fall2007/sehnbruch/UNDP%20Anand%20and%20Sen%20Concepts%20of%20HD%201997.pdf>
- Arias, S. and Simón, A. (2004): *Las estructuras solidarias de las universidades españolas: organización y funcionamiento*, Universidad Autónoma de Madrid, Madrid.
- Arias, S. and Molina, E. (coords.) (2006): *Universidad y Cooperación al Desarrollo*, Cuadernos Solidarios n° 1, Universidad Autónoma de Madrid, Madrid.
- Arias, S. and Molina, E. (2008): *Universidad y Cooperación al Desarrollo: la experiencia de las universidades de la ciudad de Madrid*, Los libros de la Catarata, Madrid.
- Atkinson, A.B. (2003): "Multidimensional Deprivation. Contrasting Social Welfare and Counting Approaches", *Journal of Economic Inequality*, 1: 51-65.
- Beneitone, P., Höivik, S., Molenaers, N., Obrecht, A., Renard, R. (2003): *University Development Co-operation. Models of Good Practice*, Universidad de Deusto, Bilbao.
- Boeren, A. (2012): "Issues and Trends in Development Cooperation Programmes in Higher Education and Research", Nuffic, on line: <https://www.nuffic.nl/en/library/issuas%20and-trends-in-development-cooperation-programmes-in-higher-education-and-research.pdf>.
- Boni, A. and Walker, M. (2016): *Universities and Global Human Development: Theoretical and Empirical Insights for Social Change*, Routledge, Abingdon-Oxon.
- Bourguignon, F. and Chakravarty, S.R. (2003): "The Measurement of Multidimensional Poverty", *Journal of Economic Inequality*, 1: 25-49.

- Brandolini, A. and D'alessio, G. (1998): *Measuring Well-being in the Functioning Space*, Banco d'Italia Research Department, on line: <http://www.ophi.org.uk/wp-content/uploads/Brandolini-DAlession-1998.pdf>.
- Chakravarty, S.R., Mukherjee, D., Renade, R.R. (1998): "On the Family of Sub-group and Factor Decomposable Measures of Multidimensional Poverty", *Research on economic inequality: a research annual*, Emerald JAI, Bingley [u.a.], ISSN 1049-2585, ZDB-ID 10687361. - Vol. 8.1998: 175-194.
- Chan, W. (2004): "International Cooperation in Higher Education: Theory and Practice", *Journal of Studies in International Education*, Vol. 8 No. 1, Spring 2004 32-55, DOI: 10.1177/1028315303254429
- Cloete, N., Bailey, T., Pillay, P., Bunting, I. and Maassen, P. (2011): *Universities and Economic Development in Africa*. Centre for Higher Education Transformation (CHET). African Books Collective, on line: <http://chet.org.za/files/uploads/events/Seminars/CHET%20HERANA%20Universities%20and%20Economic%20Development%20WEB.pdf>
- Comité Español Universitario de Relaciones Internacionales (2000): *Estrategia de Cooperación Universitaria al Desarrollo*, on line: <http://www.ocud.es/es/files/doc555/escude2000.pdf>
- Development Assistance Committee (2015): *International Development Statistics (IDS)*, on line databases, accessed: november, 2014. <http://www.oecd.org/development/stats/idsonline.htm>.
- De Wit, H., Jaramillo, I., Gacel-Ávila, J., Knight, J. (2005): *Educación Superior en América Latina. La dimensión internacional*, World Bank and Coed. Mayol, Bogotá.
- East, L., Stokes, R. and Walker, M. (2014): "Universities, the Public Good and Professional Education in the UK", *Studies in Higher Education*, 39:9, 1617-1633, DOI: 10.1080/03075079.2013.801421.
- Ferrero, G. (2003): *De los proyectos de cooperación a los procesos de desarrollo. Hacia una gestión orientada a resultados*, PhD diss, Universidad de Valencia.
- Forman, E.H., Peniwati, K. (1998): "Aggregating individual judgments and priorities with the Analytic Hierarchy Process", *Eur J Oper Res.*, 108, 165-169.
- Gasper, D. (2000): "Evaluating the 'Logical Framework Approach' towards learning-oriented development evaluation", *Public Administration and Development*, Vol. 20, Issue 1: 17-28. DOI: 10.1002/1099-162X(200002)20:1 <17::AID-PAD89>3.0.CO;2-5.
- George, A. (2015): "Explicating the Capability Approach through the Voices of the Poor: A case study of waste-picking women in Kerala", *Journal of Human Development and Capabilities*, Vol. 16, N° 1, 33-46, <http://dx.doi.org/10.1080/19452829.2014.938728>.
- Gertler, P., Martínez, S., Premand, P., Rawlings, L., Vermeersch, C. (2011): *Impact Evaluation in Practice*, World Bank, on line: [http://soterrespirces-wprñdbaml-prg/EXTHDOFFICE/Resources/5485726\\_1295455628620/Impact\\_Evaluation\\_in\\_practice.pdf](http://soterrespirces-wprñdbaml-prg/EXTHDOFFICE/Resources/5485726_1295455628620/Impact_Evaluation_in_practice.pdf).

- Guijt, I. (2013): "Impact Evaluation for International Development: Why We Need It, Why It Is Hard", Paper presented at *Conference Impact Evaluation 2013: Taking stock and looking ahead*. Wageningen University.
- Hernández, A., and Millán, G. (2014): "Análisis de la ayuda oficial al desarrollo internacional en educación 2002-2012: distribución sectorial y geográfica", Paper presented at II International Conference for the Red Española de Estudios del Desarrollo (REEDES). Huelva, June 16-17.
- Jara, O. (1994): *Para sistematizar experiencias. Una propuesta teórica y práctica.*: Ediciones Tareas. Lima.
- Jara, O. (2001): *Dilemas y desafíos de la sistematización de experiencias*. Costa Rica: Centro de Estudios y Publicaciones-Alforja.
- Jara, O. (2012): "Sistematización de experiencias, investigación y evaluación: aproximaciones desde tres ángulos", *Educación Global Research* n° 1, on line: <http://educacionglobalresearch.net/wp-content/uploads/02A-Jara-Castellano.pdf>.
- Johansen, T. and Arano, K. (2016): "The Long-Run Economic Impact of an Institution of Higher Education. Estimating the Human Capital Contribution", *Economic Development Quarterly*, 30 (3): 203-214, DOI: 10.1177/0891242416655204
- Kearney, M.L. and Lincoln, D. (2013): "The purposes of higher education: responses from a globalized world", *Studies in Higher Education*, Vol 38, Issue 8, pp. 1103-1104, DOI: 10.1080/03075079.2013.838094.
- Kusters, C., Van Vugt, S., Wigboldus, S., Williams, B., Woodhill, J. (2011): *Making Evaluation Matter: A Practical Guide for Evaluators*, Centre for Development Innovation, Wageningen University & Research Centre, Wageningen.
- Martinic, S. (1984): *Análisis de algunas categorías de sistematización*, CIDE-FLACSO, Talagante.
- Ministerio de AA.EE. y Cooperación (2017): "Seguimiento y Transparencia", on line: <http://www.exteriores.gob.es/Portal/es/SalaDePrensa/Multimedia/Publicaciones/Paginas/Cooperacion/Seguimiento.aspx>. Access: June-2016.
- Muñoz, C., Núñez, M.A., Ahuja, R., Ortega, L., Sánchez, H. (2003): *Desarrollo de una propuesta para la construcción de indicadores del impacto social de la educación en América Latina y el Caribe*, Universidad Iberoamericana, Oficina Regional de Educación para América Latina y el Caribe, UNESCO, Santiago de Chile.
- Muñoz, Y. (2014): *Análisis de la AOD en servicios sociales básicos*, PhD diss., Universidad de Córdoba.
- Norwegian Agency for Development Cooperation (NORAD) (1990): *The Logical Framework Approach – Handbook for Objectives-oriented Project Planning*, NORAD, Oslo.
- OECD (1998): *Technology, Productivity and Job Creation: Best Policy Practices*. The OECD Jobs Strategy, OECD Publishing, DOI: <http://dx.doi.org/10.1787/9789264163416-en>.
- Saaty, T.L. (1980): *The Analytic Hierarchy Process: Planning, Priority Setting, Resource Allocation*, McGraw-Hill, New York USA.

- Saaty, T.L. (1990): *Multicriteria Decision Making: The Analytic Hierarchy Process*, RWS Publications, Pittsburgh, PA, USA.
- Saaty, T.L. (2003): "Decision-making with the AHP: Why is the Principal Eigenvector Necessary?" *European Journal Oper Res.*, 145, 85-91.
- Sebastián, J. (2000): *Informe sobre la cooperación académica y científica de España con América Latina*, Conferencia de Rectores de las Universidades Españolas, Madrid.
- Sebastián, J. (2003): *Estrategias de cooperación universitaria para la formación de investigadores en Iberoamérica*, Organización de Estados Iberoamericanos para la Educación, la Ciencia y la Cultura, Madrid.
- Sebastián, J. (2004): *Cooperación e internacionalización de las universidades*, Biblos, Buenos Aires.
- Selener, D. (1996): *La sistematización de proyectos de desarrollo. Una metodología de evaluación participativa para fortalecer la capacidad institucional de ONGs y organizaciones populares*, Preval, on line: <http://preval.org/documentos/00513.pdf>.
- Sen, A. (2000): *Desarrollo y libertad*, Planeta, Madrid.
- Shosha, G.A. (2012): "Employment of Colaizzi's Strategy in Descriptive Phenomenology: A Reflection of a Researcher", *European Scientific Journal*, November edition, Vol. 8, No.27 ISSN: 1857 – 7881 (Print) e – ISSN: 1857- 7431.
- Stokes, K. and Coomes, P. (1998): "The Local Economic Impact of Higher Education: An Overview of Methods and Practice", *Association for Institutional Research for Management Research, Policy Analysis, and Planning*, 67, 1-16.
- Tapella, E. and Rodríguez-Bilella, P. (2014a): "Shared Learning and Participatory Evaluation: The Sistematización Approach to Assess Development Interventions". *Evaluation*, 2014, Vol. 20 (1), 115–133.
- Tapella, E. and Rodríguez-Bilella, P. (2014b): "Sistematización de experiencias: una metodología para evaluar intervenciones de desarrollo", *Revista de Evaluación de Programas y Políticas Públicas*, Núm. 3: 80-116, Universidad Nacional de Educación a Distancia, Madrid.
- Tsui, K. (2002): "Multidimensional Poverty Indices", *Social Choice and Welfare*, vol. 19: 69-93.
- UNESCO (2016): "Enrolment by Level of Education", on line databases: <http://data.uis.unesco.org/#>. Access: June-2016.
- Unceta, K. (2006): *La cooperación al desarrollo en las universidades españolas*, Agencia Española de Cooperación Internacional para el Desarrollo, Madrid.
- Universia (2017): "Estudiar en América", on line: <http://www.universia.es/estudiar-extranjero/america>.
- Vázquez, M.J., Santos, F., Sianes, A., Simón, P. (2015a): *Sistematización, evaluación y rendición de cuentas: reflexiones y aportes para las ONGD andaluzas*, ISBN: 978-84-606-7254-8. Córdoba: Fundación ETEA para el Desarrollo y la Cooperación.

- Vázquez, M.J., Torres, M., Caldentey, P. (2015b). "Limits of the Logic Framework and Deficiencies of the Traditional Evaluation in Cooperation for Development to Assess Impact." *Iberoamerican Journal of Development Studies*, Vol. 4, issue 2 (2015), pp. 80-105. ISSN: 2254-2035.
- Vaidya, O.S., Kumar, S. (2006): "Analytic Hierarchy Process: An Overview of applications", *Eur J Oper Res.*, 169, 1-29.
- World Bank (2002): *Constructing Knowledge Societies. New Challenges for Tertiary Education*, The World Bank, on line: [http://siteresources.worldbank.org/INTAFRREGTOPEIA/Resources/Constructing\\_Knowledge\\_Societies.pdf](http://siteresources.worldbank.org/INTAFRREGTOPEIA/Resources/Constructing_Knowledge_Societies.pdf).