

## Monograph “Globalisation and Internationalisation of Higher Education”

## ARTICLE

# Conditions for the Internationalisation of Higher Education: Between Inclusion and Exclusion in a Globalised World

**Alma Arcelia Ramírez Iñiguez**

[almarceliar@gmail.com](mailto:almarceliar@gmail.com)

Doctoral Student in Education and Society, University of Barcelona; Grantholder,  
National Council of Science and Technology (CONACYT), Mexico

Submitted in: January 2011

Accepted in: April 2011

Published in: July 2011

**Recommended citation**

RAMÍREZ, Alma Arcelia (2011). “Conditions for the Internationalisation of Higher Education: Between Inclusion and Exclusion in a Globalised World”. In: “Globalisation and Internationalisation of Higher Education” [online monograph]. *Revista de Universidad y Sociedad del Conocimiento (RUSC)*. Vol. 8, No 2, pp. 313-325. UOC. [Accessed: dd/mm/yy].

<<http://rusc.uoc.edu/ojs/index.php/rusc/article/view/v8n2-ramirez/v8n2-ramirez-eng>>

ISSN 1698-580X

**Abstract**

This article presents an analysis of the elements that enable or hinder the development of higher education institutions within an international environment, taking into account the particularity of the different social contexts and purposes of higher education. To this end, the concept of globalisation and its characteristics are analysed. Specific emphasis is placed on the processes of inclusion and exclusion that it has generated and its impact on educational actions. In addition, the aims of higher education and its transformation as a result of a technologically connected world and increasingly pluralistic societies are discussed. Thus, this analysis delineates the relationship between globalisation and internationalisation of higher education. In conclusion it identifies the indicators for the inclusion of institutions in international dynamics, considering not only their internal conditions,

but also those related to the society in which they operate. In other words, this article presents an approach to internationalisation that involves institutional, cultural, social, economic and educational factors that facilitate or hinder integration into the global world.

### Keywords

globalisation, higher education, internationalisation, inclusion, exclusion

## *Condiciones para la internacionalización de la educación superior: entre la inclusión y la exclusión en un mundo globalizado*

### *Resumen*

*Este artículo presenta un análisis de los elementos que posibilitan o dificultan el desarrollo de las instituciones de educación superior dentro de un entorno internacional, teniendo en cuenta la particularidad de los distintos contextos sociales y los fines de la educación superior. Para ello, se analiza el concepto de globalización y sus características, destacando los procesos de inclusión y exclusión que ha generado y su impacto en las acciones educativas. Asimismo, se discuten los propósitos de la educación superior y sus transformaciones como consecuencia de las demandas de un mundo interconectado tecnológicamente y de sociedades cada vez más plurales. De esta manera, la reflexión conceptual se realiza en torno a la relación entre globalización, educación superior e internacionalización, y se concluye con los indicadores que favorecen la inclusión de las instituciones en las dinámicas internacionales, considerando no sólo sus condiciones internas, sino también aquellas relacionadas con la sociedad en la que se desenvuelven. Por tanto, se destaca una perspectiva de la internacionalización que involucra factores institucionales, culturales, sociales, económicos y educativos que facilitan u obstaculizan una integración en el mundo global.*

### *Palabras clave*

*globalización, educación superior, internacionalización, inclusión, exclusión*

---

---

## Globalisation and Educational Processes

In recent decades, processes of social change have been generated as a result of transformations in several areas: technology, economics and social policy. These changes have manifested themselves in various ways, such as a greater interconnection among countries, faster information flows and real-time news about what is happening in other parts of the world. New information and communication technologies (ICTs) facilitate links between societies and an awareness of other cultures.

While economic and political relationships among countries are nothing new, they take on a different dimension in a globalised world. From the late 15<sup>th</sup> century to the mid 20<sup>th</sup> century, trade links fostered cultural exchanges and power relationships among countries, which came closer

together and coexisted amid confrontation, integration and imposition (Beck, 1998; García, 2000; Friedman, 2006). However, the relationships currently being established among nations demand the construction of a new paradigm, in which the characteristic features of this global reality need to be defined (Martin & Schumann, 1998; García, 2000; Bauman, 2001; Rivero, 2006). These can be classified into the following categories:

- a) Technological revolution. ICTs offer an immediate connection with what is happening anywhere in the world, and this has led to changes in the ways we relate to each other. The advent of the Internet and advances made in communication devices have led to information being available at any time. This revolution also impacts on personal and work-related habits, and changes production and coexistence systems.
- b) Market extension. Being constantly interconnected has facilitated trade expansion and the union of regions to form common markets, such as the European Union (EU), the North American Free Trade Agreement (NAFTA) and the common market of Latin-American countries (Mercosur). This opening enables a large-scale exchange, in which trade barriers disappear and market rules govern relationships among countries.
- c) Dominance of an economic-social model. Global-scale trade liberalisation has given rise to just one way of understanding economic and social policy: the neoliberal one. From this perspective, the state is no longer absolutely responsible for the welfare of its citizens; it becomes an agent that regulates the actions of private agents in a logic of competition. While the state has sovereignty over the control of economic activities and social welfare policies, such sovereignty is becoming increasingly subordinated to the overriding economic forces of agents external to a particular territory.
- d) Enlargement of borders. A consequence of the three previous categories is that borders, which once delimited the powers of states within particular territories, are now permeable and no longer clearly defined. While it is possible to distinguish the geographical extent of a nation's territory, trade dynamics, technological advances and the opening of markets have led borders between countries to become relative, since they are now dependent on economic actions.

A consequence of globalisation is the transformation of other processes, such as migration, coexisting with things that are different, the shaping of culturally diverse societies and the inclusion/exclusion of people on local and global scales.

Access to the benefits provided by ICTs, the advantages of breaking down trade barriers and the chance to move from one place to another without any restrictions are globalisation conditions that are only within reach of a certain few, and they give rise to a new polarisation (Bauman, 2001). In this disparity, some have unprecedented freedom to move around irrespective of physical barriers and to act at a distance, thus enabling them to invest in any stock exchange or through any branch agent by

eliminating all geographical distances. Likewise, cross-national companies are able to produce in one country, pay taxes in another, demand costs for infrastructure creation in a third country and draw on a workforce where it is economically most advantageous (Beck, 1998). Globalisation has also allowed people to become more mobile; they are able to travel to several countries in short spaces of time and be in Tokyo, the United States and somewhere in Europe all in the same week.

In contrast, the World Development Report (2009) specifies that production is concentrated in big cities, advanced regions and wealthy nations. In countries like Brazil, China and India, it shows that poverty rates in developing states are twice as high as those in the most developed states. Similarly, more than 1 billion people on the planet subsist on less than 2% of the world's wealth.

Consequently, technological advances and the ability to move from one place to another, to expand commercial links and to seek out the most suitable resources to benefit from the enlargement of borders are only available to a minority of people worldwide. The others have to find ways simply to get by and to secure better standards of living, which is reflected in migration. According to the World Migration Report (2010), the number of international migrants has increased sharply in recent decades. Furthermore, it states that if the migrant population continues to grow at same rate as it has in the last 20 years, the number of migrants could reach 405 million by 2050. It is estimated that the workforce in the economically most developed countries will amount to almost 600 million by 2050, whereas the workforce in the least developed countries is expected to increase by 3 billion by 2020 and 3.6 billion by 2040. As a result, the report calculates that the demand for migrant workers will probably increase in the developed world due to ageing populations and the need to attract highly qualified people.

In this context, the conditions of inequality are obvious. People with the chance of getting a well paid job, access to education and the necessary resources to develop in a highly interconnected world are those who can exercise their right to movement, personal growth and freedom by overcoming all the physical and media barriers that define today's world.

The diversity of societies and the constant changes that they are experiencing as a consequence of globalisation mean that there is a need for training processes that allow individuals to learn to coexist with differences and to develop in a dynamic environment. In short, people need to adapt and change. In order to cope in a global world, individuals should ideally have the following competencies (Leiva, 2009):

1. A knowledge of global society. A sound knowledge of what is happening in the world and of the international socioeconomic and political situation.
2. An understanding of technology. A knowledge of new technological trends and the opportunities they offer in different areas.
3. A command of languages. A particular command of English and the ability to get by in other languages, which will allow individuals to have a more in-depth knowledge of other cultures and to communicate more effectively.

4. International experience. This is important, and may take the form of either studying or working abroad. This is a prerequisite for gaining a broader vision of the world.

In theory, the development of these competencies within an educational process allows individuals to adapt better and to operate in a global world, thus responding to its demands. However, such competencies are gained through continuous educational processes and specific instruction that are only within reach of a certain few. The coverage and quality of primary education, in which the basic competencies for living and coexisting are learnt, is a pending issue. In 2007, the number of primary school age children across the globe without schooling was 72 million; furthermore, if current trends are taken into account, 56 million children may still be deprived of schooling by 2015 (UNESCO, 2010). In addition, there are significant differences in the attainment of quality, meaning that the learning of basic competencies is unequal both within and among countries.

The forces of globalisation open up educational opportunities and offer the tools for a more effective use of time, space and knowledge. However, people with no schooling, bad health and food conditions and an impoverished environment are excluded from these opportunities and remain on the sidelines of the welfare that others enjoy. Therefore, they struggle to obtain some kind of benefit from the spaces of subordination that are still free. On this point, higher education has both an economic function and a social function.

## The Purposes of Higher Education in a Globalised Context

In the World Declaration on Higher Education (1998), it was agreed that the main mission of this level of education is to educate, train and undertake research. Within this objective, there are specific references to the training of highly qualified diploma holders, the construction of an open space that promotes lifelong learning, the generation and dissemination of knowledge, and the contribution to understanding, interpreting, fostering and disseminating national, regional, international and historical cultures. Higher education's mission also involves inculcating certain values in young people, such as democratic citizenship based on debate, the promotion of criticism and objectivity, and contributions to the development and improvement of education at all levels, mainly by training teaching staff.

Consequently, higher education holds the power to effect change through basic teaching, research and knowledge dissemination activities. It shapes the educational sphere within which economically-related professional competences are developed, as are those related to social values, critical capacity and social transformation. In higher education, actions are taken to contribute to narrowing the inequality gap, to foster values such as tolerance, democracy and equality, and to promote scientific innovation aimed at creating knowledge and solving problems.

UNESCO (2004) mentioned that the factors that led to a re-think of training priorities in higher education were the proliferation of multinational companies; new ways of providing educational

services such as distance education and instruction through virtual media; the enormous diversity of qualifications and certificates; an increase in student mobility and in educational programmes based on international cooperation; the need for lifelong learning; and an increase in private investment in education.

The global reality places certain demands on higher education; these demands are connected with the requirements of today's economy, the transformation of knowledge, the short-lived validity of some information and the need to use ICTs to facilitate instructional processes. In this respect, higher education has taken on the role of educating to respond to new economic schemes and of creating knowledge (Altbach, 2006), as well as teaching, learning and a service to society through the engagement of the public sector and private enterprise (Knight, 2011).

The 2009 World Congress on Higher Education, besides ratifying the missions and functions of higher education declared in 1998, highlighted its social responsibility in terms of creating participation spaces for all stakeholders intervening in educational actions and knowledge generation. Emphasis was placed on the need to strengthen access to and the equity and quality of higher education, which implies both financial and educational support for the most marginal communities, the strengthening of teacher training and the educational planning of basic teaching. In addition, mention was made of the need to use networks and collaborations among institutions to contribute to mutual understanding and to promote a culture of peace, student exchanges and international cooperation through mechanisms that ensure multilateral and multicultural collaboration, as well as an increase in regional cooperation with regard to recognising qualifications.

The new challenges for higher education involve an acknowledgement of the local needs of institutions as well as international cooperation to help them meet those needs. Making full use of the global network is a key aspect in the quest for an equitable education and the reduction of disparities among, between and within institutions.

However, the relationship between higher education institutions and globalisation is complex. While there is an acknowledgment of the fact that these should respond to a local reality in a global context, the conditions in which internationalisation presents itself as a means of attaining that objective are questionable, both in terms of their aims and meaning.

## Conditions for the Internationalisation of Institutions

In essence, universities respond to national interests or, in other words, to their local needs. In this respect, internationalisation responds to each institution's specific objectives. So, while some universities may not be international, all of them are subject to the same globalisation processes (Scott, 2000); they are affected by the characteristics of the era in which they operate.

Consequently, if internationalisation is taken as the capacity to operate in a social, economic and technologically interconnected world, then they require certain conditions to contribute to the attainment of universities' objectives and their development. In a reality where the polarisation of inequalities is global, the capacity to become internationalised varies among institutions and among

people, in such a way that those with qualities concordant with the characteristics of globalisation have a greater chance of inclusion in international dynamics than those operating in a less favourable social and economic context.

The factors determining the conditions for higher education institutions to become internationalised are manifold. On a micro level, Agnew and van Balkom (2009) identified student motivation, an institution's demand for international experiences and the extent to which lecturers take part in international activities. On a meso level, a priority strategy includes noteworthy aspects such as financial support, an institution's mission and its link to culture. The macro level includes specific state funding, the relationship between graduates and the business community, students' preparation to join the worldwide labour force and the extent to which curricula include the construction of the international community.

Under this logic, Altbach and Knight (2007) mention that certain countries are admitting more and more international students into their universities in order to gain prestige and generate income. In the European Union, for example, academic internationalisation is part of economic and political integration. Currently, the Bologna Plan has harmonised academic issues in order to ensure compatible structures, transferable credits and equality in qualifications. In accordance with the afore-mentioned authors' analysis, the tendency towards internationalisation is on the up; however, there are a number of elements that may facilitate or hinder it, such as:

Political realities and national security. A fear of terrorism, limitations on studying certain topics or visa requirements.

Government policies and the cost of studies. Policies on the cost of tutoring and paperwork for visas and other documents.

Enlargement of national capacity. An interest in studying abroad or enrolling on international programmes may decrease as countries increase higher education access requirements, particularly on masters' and doctoral programmes.

English. The growing use of English as a vehicular language in research and teaching may arouse interest in international programmes.

Internationalisation of the curriculum. Students are able to find useful international programmes in keeping with their interests.

e-Learning. The international recognition of degrees will make the role of distance education broader.

Private sector. Private education is the fastest growing segment, though only a part of it is international.

Quality assurance and monitoring. This is the problem that assessors on an international scale have criticised the most, although the necessary measures to solve it have not yet been taken.

Student mobility and the chance for institutions, people and governments to support internationalisation processes are conditioned by personal, institutional, political and financial factors. These refer to valuing one or more languages above others, the training priority in certain disciplines and professional degrees more closely linked to technological and economic development, and limitations on a financial and social scale that means that some people will have access to education while others will not.

In regions like Latin America and Africa (Ávila, 2007; Otieno, 2009), some progress has been made on the conditions for internationalisation in line with the characteristics that this process entails, but in comparison to the United States and Europe, the achievements have been slow. These conditions represent challenges that can be summed up as:

Institutional disadvantages. A lack of organisational strategies and policies aimed at internationalisation and of funding focused on that process.

Quality of educational processes. In the case of Latin-American institutions, international programmes do not explicitly address improvements in quality. In Africa, there is some concern about the low quality of African universities' academic programmes, which gives rise to mistrust when it comes to choosing the region's universities and hinders their internationalisation.

Incomplete internationalisation strategies. A lack of an international vision of the higher education system as a whole, without it focusing solely on people. In Latin-American institutions, strategies that encompass all educational dimensions are required: teaching, educational programmes and a focus on knowledge. In the case of Africa, what stands out is a lack of cooperation in the field of research and of the region's representation of research, meaning that its status is marginal.

Student mobility. In both regions, there is a need to promote mobility programmes and systems that facilitate student exchanges and the recognition of studies undertaken in different countries.

The elements that facilitate or hinder the internationalisation of higher education institutions are varied; it is therefore necessary to specify certain nuances that are country and region dependent. It is evident that, in a region like the European Union, where economic and political integration processes have been consolidated, an exchange of educational processes is more feasible. Likewise, the economic, political and social stability of a region favourably conditions internationalisation processes.

The conditions of intercommunication among institutions can be divided into three structural levels of education: the system, the institution and people. In each one, inclusion and exclusion processes inherent to the characteristics of internationalisation are established. The analysis performed by Altbach (2006) and Teichler (2004) points out that internationalisation currently takes place among equals or, in other words, among institutions, countries and regions with similar economic, political and cultural systems. In this context, universities located in societies with developed economies,

technological production, access to information systems and similar codes of values and languages (command of English as a first or second language and knowledge production concordant with market needs) will be *included* in a global world. Thus, those that have the capacities to blend with the dominant forms of internationalisation will be able to be included, but not all of them will manage to achieve that. On the basis of the *north-south* divide (included-excluded), systems will try to join in by encouraging student and academic mobility, access to information technology and scientific media, and by constructing a curriculum focusing on the demands of the global reality, although none of this will provide an assurance of a quality education that responds to the characteristics and needs of the most immediate context.

The complexity of the higher education, globalisation and internationalisation relationship is thus revealed. On the one hand, internationalisation tends to increase the permeability of established borders as a result of the particular characteristics of globalisation, and to respond to the demands of the dominant world market. On the other, the functions of higher education – aimed at strengthening national cultures, fostering critical capacities and contributing to the development of more egalitarian societies in regional contexts – are hindered in the quest for inclusion in international education spaces and the advantages that they bring.

## An Inclusive View of Internationalisation: Some Indicators

The conditions in which many higher education institutions worldwide are currently working do not meet the necessary requirements for effective internationalisation. While globalisation has made the limits imposed by borders more flexible, facilitating freer trade relations and enabling people's mobility, the impact has not been the same for every citizen around the world; in the case of education, the situation is no different.

To achieve an internationalisation that does not exclude people, institutions or countries, it is necessary to re-think the characteristics that are currently considered crucial for internationalisation. While they have so far been those that the global reality itself has demanded, it is considered essential to adopt a critical stance in favour of a more inclusive, comprehensive internationalisation. Thus, the following indicators are established as part of a more inclusive view of internationalisation:

1. *Political will.* This should be present not only on a national scale, but also on an international scale, to ensure that efforts to improve the quality of education and to allocate more funding to this level of education are not addressed solely at the institutions of one nation. Rather, the higher education situation in countries that have greater difficulties in terms of becoming internationalised should be analysed more.
2. *Integral socioeconomic attention.* To ensure that higher education institutions manage to overcome their problems of interconnecting with others on regional and international scales,

it is necessary, in a parallel and joint manner, to attend to the problems that populations are experiencing, which affect their access to education and their integration into society. Taking account of the relationship between higher education and the context, cooperative policies on a global scale are required to address the problems of the context in which higher education is located, by considering the education-society relationship.

3. *Assessment of knowledge in keeping with the contexts.* Although learning and having a knowledge of English or technological advances have been considered as necessary conditions for operating in global dynamics, it is essential to draw on knowledge areas that are relevant in the societies where the institutions are located. This will become possible as the economic processes with the power to move resources from one place to another begin to draw on the particular characteristics of the societies in which they invest, employ labour and make their trading profits. This should be done in a way that does not make these societies feel as if they are in a relationship of exploitation, but rather of exchange.
4. *Mutual mobility.* While borders have become permeable for trade exchanges, this is not necessarily the case for people. The obstacles impeding the free movement of individuals are becoming greater, and mobility options have to go through several filters involving an assessment of the type of person who wants to be in a country other than his or her own. In this respect, a promotion of mobility is required beyond the stigmas that point towards an institution or country as being the most appropriate one for undertaking a course of study. It is within a logic of intercultural exchange where there are notable benefits of undertaking a course of study or research internships in countries that, due to prejudice, are not considered academically attractive. This will require greater mobility of lecturers and researchers, through whom institutions will enhance their teaching and research processes.
5. *Involvement of all socioeducational stakeholders.* Those responsible for granting public or private funding, institutional authorities, the student and academic community and the representatives of various labour market sectors, as well as those involved in scientific, economic and cultural areas, should democratically participate in decisions taken on higher education.

## Conclusions

To ensure that the internationalisation of education does not become an area in which the processes of exclusion and social inequality are replicated, it is essential to perform an analysis of the determining factors and of the contexts in which the intention is to globally connect educational processes. The importance of higher education as a means of combatting social inequalities and fostering the scientific, technological and social growth of a society is an objective that must not be overlooked.

While globalisation offers the potential for growth through the development of ICTs, the liberation of markets and the enlargement of borders, it must be said that these aspects only reach a minority of people. Consequently, in order to train citizens that are critical, proactive and open to difference, the internationalisation of higher education should be considered in terms that encompass the differences among countries and their respective needs, and not just the demands of the market.

## References

- AGNEW, Melanie; van BALKOM, W. Duffie (2009). "Internationalization of the university: factors impacting cultural readiness for organizational change". *Intercultural Education*. Vol. 20, No 5, pages 451-462.
- ALTBACH, Philip (2006). "Globalization and the University: Realities in an Unequal World". In: Philip Altbach, James Forest (eds.). *International Handbook of Higher Education*. Dordrecht: Springer. Pages 121-139.
- ALTBACH, Philip; KNIGHT, Jane (2007). "The Internationalization of Higher Education: Motivations and Realities". *Journal of Studies in International Education*. Vol. 11, No 3-4, pages 290-305.
- ÁVILA, Jocelyne (2007). "The Process of Internationalization of Latin American Higher Education". *Journal of Studies in International Education*. Vol. 11, No 3-4, pages 400-409.
- BAUMAN, Zygmunt (2001). *La globalización. Consecuencias humanas*. Mexico: FCE. 165 pages.
- BECK, Ulrich (1998). *¿Qué es la globalización?*. Barcelona: Paidós. 224 pages.
- Education for All Global Monitoring Report* (2010). Paris: UNESCO. 510 pages.
- FRIEDMAN, Thomas (2006). *La Tierra es plana: breve historia del mundo globalizado del siglo XXI*. Madrid: MR Ediciones. 495 pages.
- GARCÍA, Néstor (2000) *La globalización imaginada*. Buenos Aires: Paidós. 238 pages.
- Higher Education in a Globalized Society* (2004). Paris: UNESCO. 27 pages.
- KNIGHT, Jane (2011). "Five Myths about Internationalization". *International Higher Education*. Vol. 62 (winter), pages 14-15.
- LEIVA, Álvaro (2009). "El líder global". In: Encarnación Soriano (coord.). *Vivir entre culturas: una nueva sociedad*. Madrid: La Muralla. Pages 179-203.
- MARTIN, Hans-Peter; SCHUMANN, Harold (1998). *La trampa de la globalización. El ataque contra la democracia y el bienestar*. Madrid: Taurus. 319 pages.
- OTIENO, James (2009). "Internationalization of Higher Education in Africa: Developments, Emerging Trends, Issues and Policy Implications". *Higher Education Policy*. Vol. 22, No 3, pages 263-281.
- RIVERO, José (2006). "Globalización, educación y pobreza en América Latina". In: Xavier Bonal (ed.). *Globalización, educación y pobreza en América Latina. ¿Hacia una nueva agenda política?* Barcelona: CIDOB. Pages 67-97.
- SCOTT, Peter (2000). "Massification, Internationalization and Globalization". In: Peter Scott (ed.). *The Globalization of Higher Education*. Buckingham: SRHE and Open University Press.

- TEICHLER, Ulrich (2004). "The changing debate on internationalization of higher education". *Higher Education*. Vol. 48, pages 5-26.
- UNESCO (2009). "The New Dynamics of Higher Education and Research for Societal Change and Development". In: *World Conference on Higher Education* (Paris, 5-8 July 2009). 14 pages.
- World Declaration on Higher Education for the 21<sup>st</sup> Century: Vision and Action*. (1998). Paris: UNESCO. 12 pages.
- World Development Report: Reshaping Economic Geography* (2009). Washington, D. C.: World Bank. 300 pages.
- World Migration Report 2010. The Future of Migration: Building Capacities for Change* (2010). Geneva: International Organization for Migration. 272 pages.

### About the Author

Alma Arcelia Ramírez Iñiguez  
almarceliar@gmail.com

Doctoral Student in Education and Society, University of Barcelona; Grantholder, National Council of Science and Technology (CONACYT), Mexico

Degree in Education awarded by the National Autonomous University of Mexico, research master's degree in Education awarded by the Autonomous University of Barcelona and doctoral student on the Education and Society programme at the University of Barcelona. Her professional career has focused mainly on the assessment of educational programmes and of teaching in the area of higher education. In addition, she has worked as an adjunct lecturer in subjects centred on teaching and educational assessment, and has taken part as an instructor in workshops for teachers on related topics. Within the Research Group on Intercultural Education (GREDI) at the University of Barcelona, she is currently writing her doctoral thesis on schools as a social inclusion factor in the case of migrant child labourers in Mexico. Her lines of research are inclusive education, education for vulnerable groups and migration.

Edifici de Llevant, 2a planta  
Passeig de la Vall d'Hebron, 171  
08035 Barcelona  
Spain



The texts published in this journal are – unless indicated otherwise – covered by the Creative Commons Spain Attribution 3.0 licence. You may copy, distribute, transmit and adapt the work, provided you attribute it (authorship, journal name, publisher) in the manner specified by the author(s) or licensor(s). The full text of the licence can be consulted here: <http://creativecommons.org/licenses/by/3.0/es/deed.en>.