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## A gaze on rural education according to scientific discourses during the last decade

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### Abstract

The largest proportion of illiteracy and lack of access to education in the world is concentrated in rural areas; therefore it is important to ensure there is access to quality education in these spots. This challenge is assumed by different branches of social research and it is reflected within the publication of articles in scientific journals. In the present document the scientific discourse surrounding the theme of rural education during the last decade was analyzed. To do this, the paper focuses on three aspects: the countries that set the agenda, the geographical areas that represent most of the attention and the prevalent themes within continents. It was observed that USA was the most productive country in terms of scientific writings with 30%; that Asia is really interested in health issues associated to rural education; that in Europe gender issues are on the table and that the African and Asian continents, as well as Latin America, are interested only on their own issues, as 100% of the times they only wrote about themselves.

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### 1. Introduction

More than 50% of the world's population belongs to rural areas (Banco Mundial, 2014). The gap of illiteracy in rural areas is 2-3 times higher than in urban areas, and it is them, more precisely, the most affected by development issues (Unesco, 2014). There are several theories that point at education as key element for its consecution (Schultz, 1961; Becker, 1995). For authors such as Sen (1999b), Ordaz (2009), Harber (2012) and other ranking prepared annually on prosperity (Legatum Prosperity Index, 2013) the variables of education and development are

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inextricably linked. Sen (1999) states that there is sufficient evidence to relate access to quality education with economic growth, as well as with improving quality of life. It is well known that there is a greater likelihood for rural areas to adopt technology, increase productivity and be able to face and adapt to changes more easily if they have received at least the benefits of basic education (Sepulveda & Gallardo, 2011). An education that is not only focused on academic learning, but that rewrites their goals to acquire new social, ethical and emotional abilities that help humans to be resilient in their own environment (Cohen, 2006), in this particular case your, in rural areas.

The profit obtained from educational processes represent a long list, as it goes from economic empowerment and quality of life improvement, up to peace keeping (Boix, 2004). These benefits, as well as the challenge that achieving access to quality education in rural areas implies, have not passes unperceived for the academic world, which demonstrates its interests on the matter through the publication of scientific articles (Valsecchi & Alberti, 2007).

Depending on the addressed issue, scientific discourse tends to move before reality does, and in many cases, it represents the base for policy building (Camargo, 2007). Given the social responsibility that published scientific writings have from being knowledge and experience broadcasters (Valero, 2006), observing what they talk about and their academic inclinations, it is possible to get a grasp on updated scientific currents and the potential effects of this discourse on reality. The objective of the present document was analyzing how the scientific discourse on rural development has evolved through time, which are the main issues addressed and their geographic distribution. To do this, we have answered three questions: which countries set the scientific agenda? Which are the geographical regions that receive most attention? and, what issues prevail in which continents?

## **2. Methodology**

In order to analyse the scientific discourse, the 100 most cited articles between the years 2004-2014 within the ISI Web of Science data base that included the words “rural” and “education” in the title were selected for the analysis. For the study only the abstracts were analysed, as this way we could have access to all most cited articles, and not only those that we could access. This 100 abstracts were downloaded and introduced into the qualitative analysis software Nvivo, which allowed us to perform both a quantitative and qualitative analysis based on geographic variables and content.

To perform the content analysis, the general procedure consisted on a thorough categorization of the content and issues found within each of the abstracts (Ryan, 2000; Richards 2002). On the other hand, for the geographical analysis the articles were classified according to: country/continent of the author origin and the country/continent of area studied in each of the abstracts. Finally all data was extracted and cross-connected. For the purposes of this paper the American continent was separated in Latin America and North America taking Mexico as part of the first one.

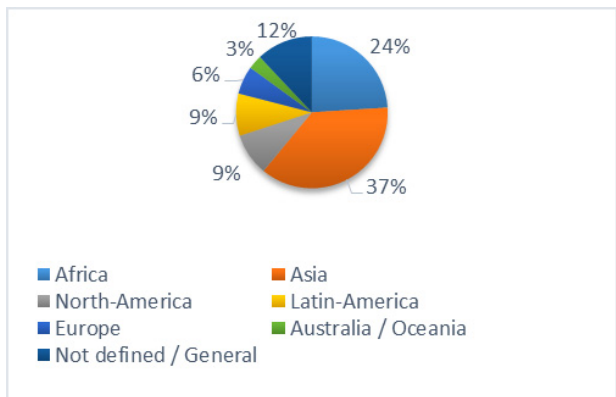
## **3. Results**

The following section is divided into the quantitative data obtained (geographic area of study and the author), and the content found within the abstracts.

### *3.1. Which are the geographic regions that receive most attention?*

The data shows, as can be seen in graph 1, that the most treated geographical areas are developing countries, with a corresponding percentage of 77% of the articles. Within these, the most studied continent is China with 37% of the articles.

Graph 1: who receives most attention?



Source: Own elaboration

In a deeper analysis, it was possible to observe that within each continent there were certain countries that stood out as attention spotlights. China represented the most treated area within the Asian continent, and not only that, it is also the most studied country at global scale, representing 27% of all abstracts analysed.

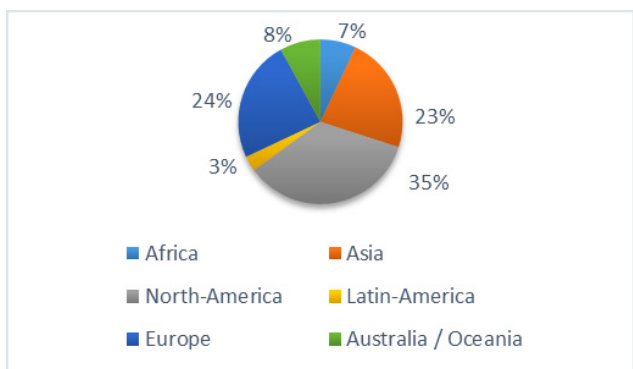
Other areas that stand out for their emergence percentage were, divided into continents (with respect to the global percentage): India (9%) within the Asian continent; Ghana (6%) and South Africa (6%) within the African continent; in Latin America Peru (3%) and Paraguay (2%); in North America, the United States (9%); in Europe United Kingdom (2%) ; and in Oceania Australia(3%) was the most and only mentioned country.

If we look at the example above but rearrange it in % of occurrence per most recurrent countries, independently of their continent, China (27%) received the most attention, as we have signaled before, but it would be followed by countries like India and U.S.A (both 9%) and Ghana and South (both with 6%).

### 3.2 What countries set the international agenda?

In the case of the author’s country of origin, the percentages found in the section above get inverted. Developed countries have more authors that write articles on rural education than developing ones with a 69% and 31% respectively. The continent that stands out the most is North America, from where 35% of all authors cited in the abstracts come from.

Graph 2. Who sets the agenda?



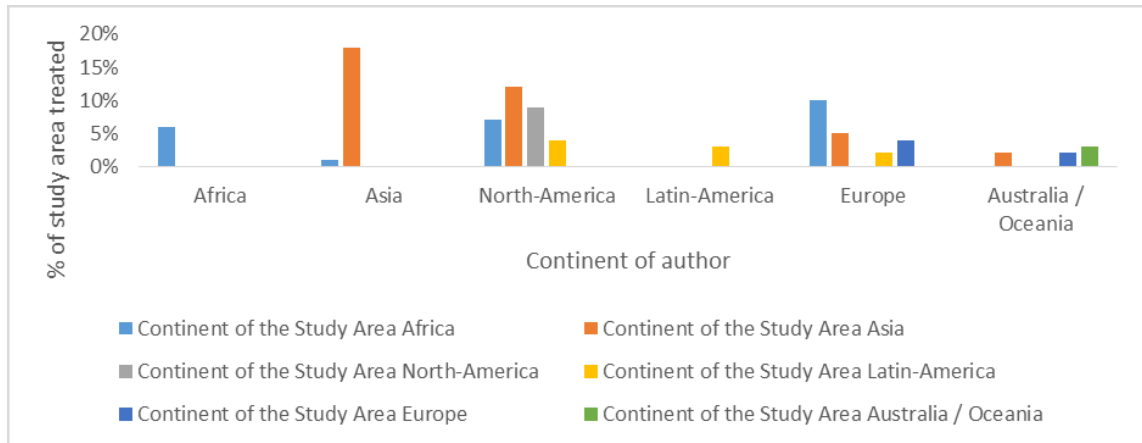
Source: Own elaboration

The countries that stand out of each continent are China and Japan in Asia, South Africa, Brasil and Mexico in Latin America and U.S. and Canada in North America, Australia, and finally in Europe, the UK stands out as most active country.

We can observe the same example but individually and by the percentage of appearance. The country that heads the list is the U.S comprising 30% of the authors, China this time is not first but second, as it represents 16% of the authors, followed by the UK with 13%. After this, the differences between the quantity of authors from one place or the other are less substantial: Australia (8%), Canada y South Africa (5%) Japan (3%) Brazil (2%).

### 3.3 Which are the geographical interests according to the author's country of origin?

Graph 3: Who writes about who?



Source: Own elaboration

For this section, we have crossed two geographical variables: the continent of the author and the continent of the study area. This way we can observe how in the analysed abstracts certain facts stand out, such as data that demonstrates that the authors that come from Africa or Latin America write 10% of the times about its own territory; the Asian continent is of high interest for most authors, as studies about this continent are present in North American, European, Asian and Australian institutions; Only Australia writes about Australia, although they do have interest on other areas such as Europe or Asia; and Europe did not write about North America and vice versa.

### 3.4 What themes are prevailing in the different continents?

The content analysis showed that there are different interests within the issue of rural education. Depending on the area studies, the variety of the themes and approaches changed, although certain themes prevail no matter the geographical space analyzed.

When the focus was the Asian continent, the main addressed themes are related to health, associating health to education. A certain worry about the relationship between the school, home and communities as key factors within education was also evidenced. Status and expectations are themes commonly addressed too.

In the case of the African continent, the content of the abstracts was characterized by the diversity in the actors affecting education (teachers/students/parents/communities). Especially with a differentiation in gender issues associated mainly to fertility, mortality and sexually transmitted diseases. Another prevalent issue is the problems faced before entering the educational system: access possibilities and opportunities were recurrent elements. Other

issues that also stand out are the costs, effects and results of the educational process. And as happens in Asia, education is strongly linked to communities and health.

In Latin America, the parents and their role in education seems to be the strongest prevailing theme. Therefore, as in the previous two continents, the community plays an extremely important role, and especially the closest family is essential. There is high interest on the area of educational impact, issues of programs organizational policies (structure of the education), and access problems. However, although present, gender issues do not seem to be as significant in comparison to Africa or Europe.

In Europe the main interest are the problems related to gender discrimination in the Access and continuity within the educational system, and to a lesser extent, issues related to reproductive health and sexual transmitted diseases. In Europe the issues found are not only concerned with basic education, the issues addressed deal, for example with problems when accessing university for rural people. UNESCO is also highly referenced in these articles.

In North America there is not a significant differentiation between the actors involved in education in terms of children, girls and boys etc. but the division is found when referring to students, teachers, participants etc. A common issue is the language and communication problems, this may be due to the fact that North America receives a lot of students whose mother tongue is not English, and this may cause problems in the educational system. The interests are mainly focused on higher educational levels, and especially on interest areas such as engineering and science in rural area, with a more applied character.

Oceania is a special case because of the priorities in content, which are a little different. The themes deal with content related to culture, justice and social factors. There was a strong interest for different educational models and the use of new technologies in rural areas.

#### **4. Conclusions**

For the present study, a specific methodological framework was designed and applied for the analysis of the selected materials about the academic discourse around rural education. Taking into account that scientific activity builds knowledge; the examination of the published articles on this theme has allowed us to know which are the interest lines and the actors and main subjects of the debate of the last 10 years.

The obtained data depend ultimately on the selected articles, in English and indexed in ISI. It is therefore limited and the results may not be taken as universal, as it makes sense to think that depending precisely on the educational level, there may be countries that publish on national journals that cannot be contemplated in this study. However we build the study on the premise that the best journals are indexed in ISI and publish in English.

In general, Nvivo revealed how developed countries write more about rural education although the main subjects continue to be developing countries. This could be conditioned by the fact that accessing these journal is easier for developed countries due to language, access to information and technology.

It was observed as main results that when writing about Europe and Africa, the main interests deal with gender discrimination in education, and as well as the U.S, Europe also address higher level education, like universities and professional training. On the other hand, Asia and Africa shared a common interest on the strong association between education, health and nutrition.

For the specific case of gender issues, the fact that they were recurrent –independently of it being a developing or developed country- and that its main focus was on women's access to education and reproductive health, this may be due to the demonstrated impact that women's education has on fertility and mortality, as well as on the economic indicators of a country, (World Bank, 1991; Brown, 2004) which may convert it into a universal theme.

Roughly, in the articles, it was noted that although there are common problems in all developed and developing areas, generally it is not possible to affirm that rural education problems are divided into priority issues depending on its development degree, as there are themes that go beyond economic borders and possess high degrees of universality.

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