

Research Productivity in Development Communication in the Philippines

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ABSTRACT

Pioneered in the 70s by Nora Quebral of the University of the Philippines at Los Baños, Development Communication (DevCom) is now recognized globally as a scientific discipline. As such, it is now a part of the research and development (R&D) agenda of national and international research organizations. For almost four decades, no study has been conducted to find out the research productivity in DevCom in the Philippines. We conducted in-depth analysis on the total number of publications and total number of citations of DevCom publications collected from Thomson ISI database. From the 70s to the present, 74 articles were published. The most dominant domains were on health communication (31.08 %) and agricultural communication (29.72%). On the other hand, the most predominant approaches were social mobilization (44.59%) and behavior change (41.89%). With 74 articles, it can be concluded that research productivity of DevCom in the Philippines is low. This paper presents ways to improve publication performance in DevCom in the country. Future studies may focus on identifying the factors that facilitate or impede publication performance of DevCom researchers and educators.

Keywords: Research productivity; DevCom approaches; DevCom domains

INTRODUCTION

Development Communication (DevCom) started in the 70s at the University of the Philippines in Los Baños (UPLB) when its pioneer, Prof. Nora C. Quebral, articulated the concept in a symposium at UPLB. Since then, DevCom has grown and is now considered as a scientific discipline. At that time, considering the emphasis on economic growth, development communication was defined with a strong bias towards economic development. Forty years later, however, it was redefined to reflect the growing concerns for sustainable and holistic development, embracing communication's role in achieving the millennium development goals of the United Nations (Quebral, 2012).

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In the Philippines, 22 universities are offering DevCom as a degree program at the graduate and undergraduate levels. Quebral (2012) noted that some universities in the Americas, Europe and the Asia-Pacific have similar teaching programs in communication for/and development, social change, sustainable social change or agricultural journalism. Albeit called in different names (i.e., ComDev, C4D or ICT4D), DevCom is now also a major component in projects ran by international organizations, notably the Food and Agriculture Organization (FAO) and the UN Children's Fund (UNICEF). The World Bank has set up a DevCom program. In fact, according to Mefalopulos (2008), World Bank's DevCom program "supports operations not only through dissemination and outreach activities, but also by exploring and analyzing project issues on the ground" (p. 28).

About 40 years now since its founding, no study has been conducted on the research productivity of DevCom field in the Philippines. Several authors argue that bibliometric analysis of scientific publication data is important because it gives indication on the growth of research in the discipline (Haslam and Kashma, 2010; Macauley *et al.* 2005), identify the influential journals in that discipline (Feeley, 2008; Zawacki-Richter *et al.* 2010), and most importantly, gain insights into the impact of the contribution of authors to their respective fields (Chiu and Ho, 2007). Thus, data on research productivity could reflect the fundamental research activity in the field.

This study assessed the research productivity of DevCom in the Philippines using bibliometric indicators including the number of publications and number of citations. It used journal articles as the unit of analysis.

METHODS

Source of data

Data on the number of publications and the number of citations were gathered from Thomson ISI database, previously known as the Institute for Scientific Information SCI104 EXPANDED database. The Thomson ISI database is a leading provider of academic-indexing services which covers nearly 7,000 of the world's leading scientific and technical journals across 150 disciplines. According to Varela (2013), the citations received after two years immediately following publication is considered particularly relevant in the field of bibliometrics.

Search procedure

Journal articles such as full article, research note, and review papers were used as the unit of analysis. Books, book chapter, and conference proceedings were automatically excluded from the analysis primarily on

the assumptions that these publications were not subjected to the rigorous process of peer-reviewing. The following search criteria were fed into the search window of the Web of Science database:

- Topic: {*strategic communication; social mobilization; social communication; rural communication; educational technology; educational communication; participatory communication; information, education & communication; health communication; environmental communication; development support communication; development campaigns; change communication; applied communication*},
- Address = *Philippines*,
- Year published = *1970 to 2013*,
- Document type = {*full article, research note, review*}

Topics searched represented the different domains and approaches used in DevCom. Since DevCom started in 1979, the baseline year of publication search was 1970. The data generated, composed of 200 articles, were saved in an Excel file for easy preprocessing. Done manually, preprocessing of the data was conducted to eliminate those that do not belong to development communication and avoid duplications arising from the overlapping of topics. When overlapping of topics occurred, we searched and read the abstracts of the papers and was assigned to an appropriate topic based on our expert opinion.

After preprocessing, the number of publications free of duplications, including names of authors and institutions, (i.e. changing in status from college to university), the total number of articles for analysis reached 74. The preprocessed data were subsequently analyzed using the trial version of the HistCite software (<http://thomsonreuters.com>) to gather information on the research productivity of each author (i.e. number of publications, number of citations), research and academic institutions. In case of multi-authored papers, the whole counting approach (Okubo, 1997) was used and a full count was awarded to the author and institution. In this paper, we counted authors that have a working address in the Philippines instead of taking consideration of the nationality of the author (Navarrete and Asio, 2014).

Bibliometric indexes

Two bibliometric indexes including the number of publications and the number of citations were used in this study. Accordingly, the number of publications is defined as the number of papers by a given author(s) whether as lead or as co-author or refers to the total number of publications across domains, whereas the number of citations is defined as the number of times a publication was cited by other author including self-citations. Based on frequency analysis (Vinluan 2012; Navarrete and Asio,

2014), publication counts identified the most productive researchers, institutions, most cited articles, and ranking of the top journal outlet of DevCom scientific publications in the Philippines.

RESULTS

Within the last four decades, a total of 74 papers in DevCom were published. Only two papers were published in its first decade (1970-80) but none was published in its second decade (1980-90). The biggest number of papers published was in the period from 2001 to 2010 with 36 papers. For the period 2011-2013, 22 papers were published.

In terms of citations, the highest number was for papers published from 1991-2000 with 239 citations. This was followed by the papers published in the period covering 2001-2010 with 169 citations. The papers published in its first decade had 7 citations and 22 for the publications in 2011-2013 (Figure 1).

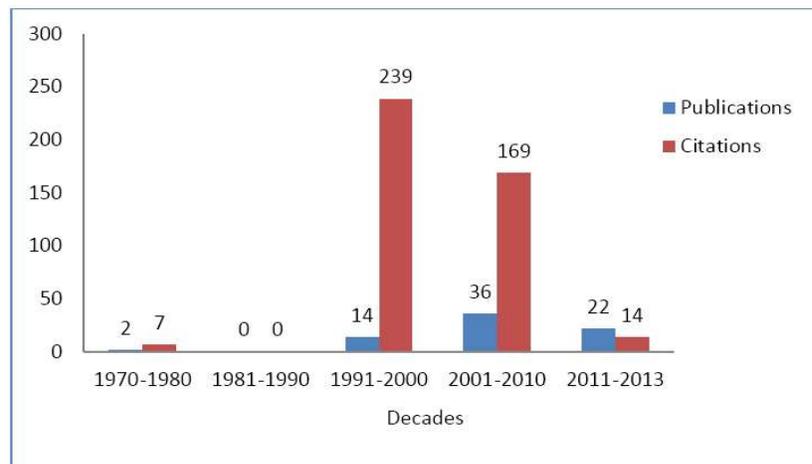


Figure 1. Number of papers and citations of development communication papers

Figure 2 shows that the most dominant of these papers were in the domains of health (23 or 31.08%) and agricultural communication (21 or 28.28%). This trend in the number of papers under the agriculture and health communication domains could be attributed to development communication's bias towards agricultural productivity and well-being of the people.

Other domains focused on by the papers were peace communication, environmental communication, and educational communication. Risk communication had only one article.

Results show four communication approaches. The most dominant was community mobilization (33 articles or 44.59%) followed by behavior change communication (30 articles or 40.54%). Instructional design and participatory communication (6 and 3 articles, respectively) had the least number of articles.

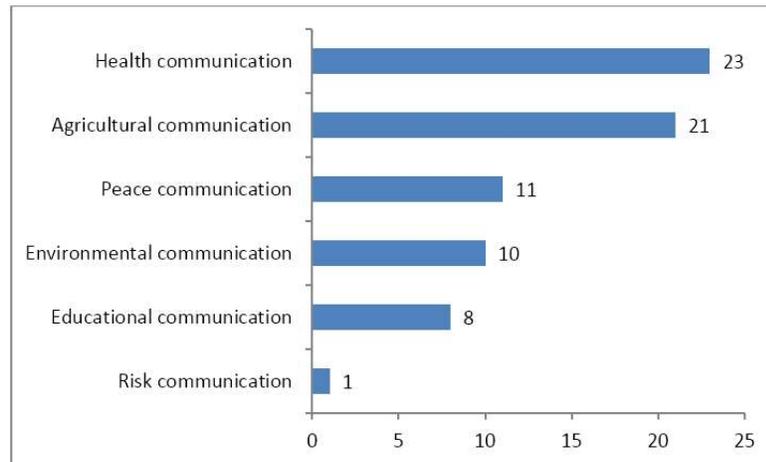


Figure 2. Domains development communication papers have focused on

Individual and Institutional Publication Productivity

The top 10 authors are equally represented by those from the research centers and academic institutions (Table 1). MM Escalada and RS Gravoso (Visayas State University, VSU) and KL Heong (International Rice Research Institute, IRRI) have 4 papers (5.40% each). The other top authors are F Palis (IRRI), T Cavalli-Sforza (WHO Regional Office), with 3 papers (4.05% each). The other authors are C Singleton (IRRI), S Jamias (UPLB), J van der Ploeg (Mabuwaya Foundation), M Cauilan-Cureg (Isabela State University), and J Pulhin (UPLB). A closer look at the background of these authors showed that only MM Escalada, RS Gravoso, S Jamias and M Cauilan-Cureg are with development communication units. Other authors are working for non-communication units and their fields of specialization are on bio-physical sciences.

Table 1. List of authors having the highest number of publications

Authors	Institution	Number of Papers	Percent
Escalada, MM	Visayas State University	4	5.40
Heong, KL	International Rice Research Institute	4	5.40
Gravoso, RS	Visayas State University	4	5.40
Palis, F.	International Rice Research Institute	3	4.05
Cavalli-Sforza, T	WHO Philippines	3	4.05
Singleton, G	International Rice Research Institute	2	2.70
Jamias, S	UP Los Banos	2	2.70
van der Ploeg, J	Mabuwaya Foundation	2	2.70
Cauilan-Cureg, M	Isabela State University	2	2.70
Pulhin, J	UP Los Banos	2	2.70

The total number of citations for papers in development communication was 440. Of this number, 63.86% was contributed by top 10 highly cited papers. The number of citations per paper, including self-citations, ranged from 1 to 48 with the highest citation coming from the paper by Auer *et al.* (2000) with 48 citations (10.91%). The lowest citation came from the papers by Lapar and Ehui (2004) and Paulino *et al.* (2005).

Interestingly, the number of papers published by research and academic institutions was almost equal. The academic institutions had 29, while the research centers had 28. Among the academic institutions, UP Los Baños had the highest number of publications with 12 papers (13.33%). VSU came next with 8 papers (10.67). It must be pointed out, however, that papers from UP Los Baños did not only come from its College of Development Communication but also from the other units of the university, while those from VSU, came only from its Department of Development Communication. Other academic institutions with high number of publications were Ateneo de Manila University with 5 and 4 papers, respectively (5.33% and 4.00%).

As with other studies on research productivity in the Philippines (i.e., Navarrete and Asio, 2014), IRRI is in the forefront when it comes to research in DevCom. In this study, IRRI had a total of 15 papers contributing 20% of the total number of papers. WHO-Philippines and Department of Health had 9 (12%) and 4 (4%) papers, respectively.

DISCUSSION

In general, results showed a small number of papers (74 papers) in DevCom in the country. This finding is consistent with other studies on publication productivity in other fields (i.e., Navarrete and Asio, 2014, Vinluan, 2012) showing the low research productivity in the Philippines.

The low publication performance in DevCom highlights the need for strategic interventions. These interventions may not only apply to DevCom but also to other scientific fields. First is improving the training in research for graduate students. More specifically, it will help if publication in a peer-reviewed international publication will be a part of the requirements for awarding an advance degree. At this time, this requirement may be applied at the doctoral level and later at the masteral level. In the Philippines, this system has been proven to be feasible by the Marine Science Institute (MSI) of the University of Philippines (UP). If other graduate schools will follow the MSI example, we can expect a dramatic increase in the number of papers published in high quality journals.

Another way is to make publication in ISI- or Scopus-indexed journals as a requirement for faculty members who supervise graduate research. While this system has become the norm in many mature universities, in the Philippines, except for UP, publication is not a part of the requirements for professors to serve as research supervisors at the graduate level. Thus, the vicious cycle of the “unpublished leading unpublished” continues.

While many groups criticize providing monetary incentive for publication as inappropriate, this system is expected to entice faculty members to publish in ISI- or Scopus-indexed journals. In the state universities and colleges (SUCs) in the Philippines the reason is that the promotion system applied in SUCs, that is, the National Budget Circular (NBC) puts a cap for publications at 30 points only. When a faculty member

reaches the maximum 30 points, his/her publications will not earn any more credit in the succeeding evaluation cycles.

Corollary to the above point, it is suggested that we also examine the way research courses are being taught in universities and graduate schools. The assessment may cover the research experience and qualification of the faculty as well as the content of the communication research course. Today, professors who are not even engaged in research projects are allowed to teach research just to meet the minimum teaching load. There is a need to emphasize the value of training in research because quality training is a key factor in improving research and publication performance among faculty members (e.g. Villalino and Cagasan, 2012).

Results of this study show that the papers from research centers outnumbered those from the academic institutions. This is consistent with other findings that in general, research institutions in the Philippines are more productive than the academic institutions (e.g. Navarrete and Asio, 2014). This trend can be explained by the fact that these research institutions require publications or even research findings for obtaining tenure and/or sustaining a position. In many universities, especially the state universities outside of the UP system, publication is not a requisite to obtaining tenure and sustained employment.

Most of the papers focused on agriculture and on health (Figure 2). This trend reflects DevCom's bias towards these research areas. For one, the Philippines, being an agricultural economy is pre-occupied with agricultural and rural development programs. The dominance of papers on health can be explained by the government's drive to attain health and well-being of the Filipinos. For example, in the 90s, in an effort to curb child morbidity and mortality due to measles, the country's health agency has implemented a nationwide immunization program for children. Another reason could be the prevalence of tropical diseases in the country that are worth investigating.

While DevCom's bias for agriculture and health may be justifiable, there is a need for DevCom research to give equal focus on other development areas. Areas most wanting research are on peace, environmental and risk communication. Unfortunately, in the present study, these domains appear to be relegated to the background as these have the least number of papers (Figure 2).

An interesting finding in this study is that most of the authors of the papers classified as belonging to DevCom are not from the DevCom field nor from any communication fields. While this may be a welcome development because other researchers are interested in investigating communication variables, this finding also implies that DevCom researchers are less active contributors to the growing literature in DevCom. This trend is expected to change in the course of time with the implementation of the strategic interventions discussed earlier.

It must be noted, however, that the data presented in this study were obtained from the Thomson Reuters database, thus should be interpreted

with care. The use of the Thomas Reuters was a conscious decision given its coverage. We expect a different trend in research productivity had other databases been used including Scopus and Google Scholar. Thus, in future research, these databases may also be explored.

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