
Strengthening the Research Culture of Higher Education Institutions*

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Introduction

Fifteen years ago, the Congressional Commission on Education or more popularly known as EDCOM expressed dismay over the state of research in higher education in the Philippines. Since then, the Commission on Higher Education or CHED has formulated a blueprint through the National Higher Education Research Agenda (NHERA) for strengthening the research culture of higher education institutions not only in the Calabarzon area but also in the entire archipelago.

This 2007 Research Forum, which aims, among other things, to: first, disseminate new knowledge and discoveries in various fields of discipline; and second, provide a venue for scientific and scholarly discourse among academics and researchers, reflects what we, in the higher education sector, have collectively accomplished in nurturing research among higher education institutions (HEIs).

After more than a decade of advocacy, research expertise building and other development initiatives, the vital signs of higher education research now look promising. An increasing number of HEIs had been coming up with creditable research outputs, in trickles at first, then in appreciable numbers these last few years.

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The theme of your conference, “strengthening the research culture of HEIs”, is indeed a timely reminder for all of us that higher education is expected both to transmit and generate knowledge or new technology through research and to apply such knowledge and technology for enhancing productivity and improving the quality of life.

Role of Academe

The academe, being the logical repository of knowledge among scholars and graduate students or scholars in the making, is expected to take the lead in developing and nurturing a “research culture” among our people. Universities are expected to produce the skilled professionals who will compete in the international labor market and produce competitive products and services as much as form part of the innovation system that generates or provides information and data needed in formulating and implementing national programs for sustainable development. In turn, the country benefits from new knowledge and technologies (developed here and elsewhere) for improving productivity and quality of life as well.

Universities are also expected to produce researchers and scientists who will do research and extension service. To paraphrase the statement of the President of Stanford University, “the creation and communication of knowledge is at the heart of every research university and a great research university, aspires to create knowledge that will benefit our society.”

Foundations of a Research Culture

What do HEIs need to be able to perform these vital roles effectively? For HEIs to be able to produce good researchers and produce creditable research outputs (through

faculty or institutional research undertakings), it must have the following elements or inputs:

1. Enough numbers of faculty with appropriate educational background and training in research, or faculty with MS and PhD degrees in varied disciplines
2. Sufficient funding
3. Facilities and library resources
4. Linkages, both local and international

While there are some institutions with adequate resources to do research and extension, like HEIs with Centers of Excellence and Centers of Development, we need much more to enable us to keep pace with our fast developing neighbors. Data show that of the more than 113,000 faculty in our 1,800 HEIs, only 9.2% completed their doctorates with 31% earning a master's degree. It is timely to note that a significant percentage of the graduate degree holders majored in non-research oriented programs. In Region IV-A, 8% of the faculty are PhD holders and 33.5% have masteral degrees. HEIs nurture researchers generally through the graduate programs. About 466 HEIs in the country offer graduate programs with around 40% or 180 schools offering the PhD program. Though graduate education in the Philippines is growing, it is only in limited areas of specialization – specifically education and arts, business and commerce. Very few HEIs in native grounds offer PhD programs in science and engineering which are at par with standards of universities abroad.

Some consider funding as the most important ingredient of a research culture, but few HEIs allocate institutional funds for research. Experience shows that an institution with good researchers who are adept at preparing research proposals on priorities identified by local and foreign donor agencies could access, or more precisely, compete for funds from such sources. CHED Research Management Information System data show

that some of our good universities get about 20% of their total research funds from external sources.

The third element, which is facilities and library resources, leaves much to be desired. Interventions to establish or develop state of the art facilities and library resources to support research and scientific undertakings have not been adequate. Up to now our HEIs especially in the provinces have outdated library collections and poorly equipped or maintained laboratories.

As to the fourth element, which is linkages, over the years research has become a highly resource intensive activity. Given the limited resources of most individual HEIs, networking and linkaging are a must, as are collaborations through joint research, information sharing, facilities sharing, and the like. HEIs are aware of the importance of linkaging, and many have aggressively been entering into Memorandum of Understanding or Agreement among themselves and with other Research and Development Institutions (RDIs), let alone with industry, professional associations, or with sister institutions abroad.

Calabarzon Research Outputs

Records of the Research Management Information System reveal that 30 HEIs in the Calabarzon area are reportedly active in the conduct of research. Twenty of these have research units. These research units of HEIs reported a total of 2,460 published and unpublished institutional research outputs and 2,579 theses and dissertations within the 3-year period of 2004-2007. Most of the institutional research outputs are on Education, Science and Teacher Training (41%), and Agriculture, Forestry, Biotech and Fisheries (32%). Similarly, the thrust of theses and dissertations is on education and teacher training (64%). With quite a number of institutional and graduate research undertakings focused on teacher

education, it is hoped that the outputs have provided inputs towards the improvement of academic programs and teaching in the concerned institutions.

Utilization of research outputs in Agriculture has been the target of CHED interventions during the last three years. The interventions are meant to improve teaching and academic programs, enhance income generating projects, and improve production and quality of life. The State Universities and Colleges in Region IV have received some allocations from the CHED Higher Education Development Fund (HEDF) to enable them to transfer and apply the technologies they have developed for production or income generation purposes as well as for supporting development of their host communities.

CHED Support for HEI Research

CHED has consistently supported the development of the elements of a research culture in colleges and universities through the following:

1. Research Expertise Building

- 1.1 The Faculty Development Program (FDP) is a six-year program aimed at upgrading the qualifications of tertiary faculty to masters degrees and doctorate levels. Under this program, CHED provides scholarship grants (including substitute assistance for full time scholars) to enable the faculty to pursue studies in priority fields, namely: English, Mathematics, Natural Science, Social Sciences, Engineering, Information Technology, and other Centers of Excellence and Centers of Development disciplines. The program has a PhD “sandwich subcomponent” for faculty who have finished their coursework and are ready to work on their dissertation. PhD sandwich grantees are sent abroad

for research primarily to promote exposure to recent developments and quality standards abroad and to enable students to make use of facilities not available locally. The FDP has a total allocation of P1.1 Billion for 3,100 slots. To date, 1,500 slots have been awarded. Hence there are 1,600 slots remaining for interested faculty. This year, the President released another P100 Million for MS and PhD scholarship in Science, Engineering, and IT.

- 1.2 CHED Dissertation/Thesis Grants are aimed at upgrading the research manpower capability of HEIs, while supporting the conduct of research on identified priority areas.
- 1.3 Visiting Research Fellowships are available for full time faculty members or research of public or private HEIs. This grant aims to serve as a mechanism for sharing/transferring research knowledge/expertise among institutions and between research experts and developing researchers; promote and facilitate collaborative research; and provide support for the conduct of research in priority areas.

Two types of fellowship are readily available - the Senior Visiting Research Fellowship and Junior Visiting Research Fellowship.

In addition, CHED provides grants for faculty who are ready to do their dissertation or thesis locally; and fellowships for researchers who are willing to share their expertise or work on a collaborative research project with colleagues in other institutions.

2. *Research Funding*

Research funding may be classified into two categories:

2.1 Funding for Grants-in-Aid

- targets researches in aid of development and policy/plan formulation and implementation which may be applied for by both public and private higher education institutions;
- these are coursed through the nine CHED Zonal Research Centers
- must meet the priorities of CHED, i.e., - responsive to development needs/concerns of the zone

2.2 Funding for Grants for Commissioned Research

- intended for research in aid of academic program development/ enhancement, standards setting, and policy formulation for higher education
- *priority thrusts* are usually identified with the help of the Technical Panels, Commissioners, CHED offices and education experts

3. *Research Utilization Program*

3.1 The University Network with Local Governments for Agricultural Development (UNLAD) program of CHED is aimed at strengthening the capability of Local Government Units (LGUs) in delivering extension services towards food security and sustainable development through collaborative efforts with state universities and colleges (SUCs). Projects eligible for UNLAD funding include: establishment of Agribusiness incubators or centers; massive production of quality planting materials and breeder stocks; technical assistance; and information, education and communication (IEC) materials production.

3.2 The Technology Commercialization for Poverty Alleviation, Food Production and Sustainable Development (TechComm) program of CHED provides funds to facilitate the transfer, utilization, and

commercialization of technologies developed by SUCs for production and income generation purposes as well as for conduct of extension activities. For example, the Biofuel project focuses on establishing economically viable science and technology based biofuel enterprise using *atrophs curcas L* and other biofuel crops.

4. Support for Facilities Upgrading

The CHED provides support for facilities upgrading in two forms:

- a. The SUC Development Program provides funds for capacity building initiatives of SUCs such as library and laboratory facilities upgrading, staff development, and computerization of operations and services
- b. The Accreditation Assistance provides funding given to HEIs to help them improve their facilities and performance indicators thereby meet the requirements for Accreditation. Requirements for Level III accreditation include Research and Extension performance.

5. Awards and Incentives

5.1 CHED has also given research awards and recognitions. Twenty seven REPUBLICA (3 national winners and 24 regional awardees have been declared) since 2004 have been identified. Each HEI can nominate for research publications; 2 for Natural Sciences and 2 for Social Sciences. The 2007 REPUBLICA winners had been selected and the awarding ceremony set on October 25, 2007 at Waterfront Hotel, Cebu City.

- 5.2 Last year, CHED conducted for the first time a search for the Best HEI Research Program, and found a dozen, almost equally excellent programs. The 2006 National Awards were won by Silliman University and UP-Diliman. This year the Award has been launched.

6. *Best HEI Extension Program/Project*

This is intended to recognize the implementers and the HEI for their outstanding extension program/projects and open to all HEIs in the country, both public and private. Criteria are development impact, institutional and policy environment for the Program, and recognition given to the program.

7. *Dissemination of Research Outputs*

CHED also supports papers presentations in International Conferences. This is to provide opportunities for disseminating research results and at the same time exposing researchers to latest developments in their fields of specialization. The support includes:

- Financial assistance to enable local researchers to participate in international conferences/seminars/ workshops/fora.
- Covers registration, airfare, per diem of US\$100 for the duration of conference plus one day.
- Paper to be presented should be in priority fields, accepted for presentation.

In 2006, CHED supported 53 researchers who presented papers in international conferences.

The aforementioned activities are the Commission's mechanism for recognizing and rewarding outstanding research programs, research outputs and researchers, including outstanding extension programs.

Thrusts of NHERA

Briefly, the thrusts of the National Higher Education Research Agenda or NHERA, as outlined by CHED, is explained below in Figure I. Admittedly, the economic, social, cultural, and political advancements of the country have their basis on research. The Commission’s **sine qua non** on quality and excellence, access and equity, relevance and responsiveness, and efficiency and effectiveness are seen to result in generating technology-directed, innovative/creative, locally responsive, and globally competitive research.

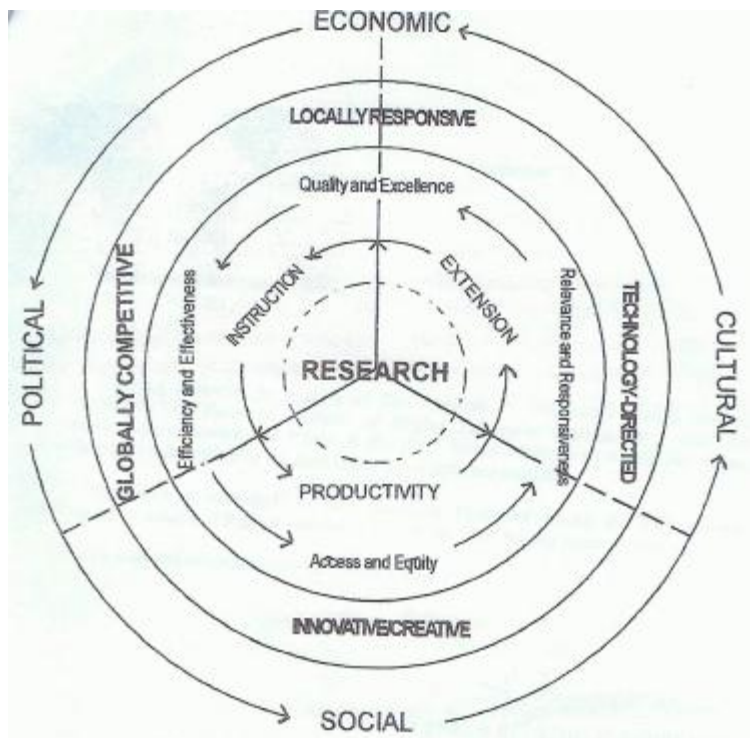


Figure 1
Role of Research in Total Development

Source: CHED National Higher Education Research Agenda (1998-2007)

In a broader perspective, the paradigm depicts the economic, cultural, social and political benefits the society derives through research. For instance, studies of the processes of education and educational institutions have generated a wealth of knowledge about the cultural factors that impinge on the institutions' capability to perform the triadic functions of instruction, research, and extension. So have studies on the contribution of education to economic growth and development. These and many more instances serve to illustrate the impact of research in improving the quality of life of the Filipinos.

Along this paradigm, CHED sees that higher education research shall aim to:

- Push the frontiers of knowledge across all the identified higher education disciplines in the country;
- Enhance instruction through original contributions in specialized disciplines thereby encouraging students to become creative, innovative and productive individuals;
- Develop unifying theories or models which can be translated into mature technologies for improving the quality of life of the Filipinos within the sphere of influence of the academic institutions in the country.

The NHERA attempts to articulate the mechanics and concrete steps necessary to attain these goals.

Conclusion

The role of research in higher education cannot be overemphasized. Indeed, research, as an academic function,

differentiates higher education from basic education. The academe has traditionally been one of the major sources of knowledge and innovation and a major contribution has come from the research activities of professors. Apart from this acknowledgment, another important **raison d'être** for the conduct of research in higher education institutions, rests on the fact that research generally precedes development. In fact, the link between national productivity (measured in terms of the GNP) and the number of research-level manpower has already been shown by some studies.

Therefore, we need to develop, better yet sustain, a culture and environment for research if we are earnest in our desire to push our country to join the ranks of world-class nations in the 21st century.