Integrating Research to Community Service Activities: Closing theGap of Health Disparities

by Abraham Simatupang

Is Research Difficult?

Kerjasama Program Studi
Magister Administrasi/Manajemen Pendidikan
dengan Mahasiswa Pascasarjana
Universitas Kristen Indonesia

Kata Pengantar

Puji dan Syukur kepada Tuhan Yang Maha Esa atas berkat dan Rahmat-Nya, sehingga Program Studi Magister Admnistrasi/Manajemen Pendidikan dapat menyelesaikan *Book Chapter "Is Research Difficult?"* di Semester Genap Tahun Akademik 2018/2019.

Tujuan dilaksanakannya kegiatan, sebagai wadah ilmiah untuk mewujudkan visi dan misi Program Studi Magister Administrasi/Manajemen Pendidikan Program Pascasarjana Universitas Kristen Indonesia.

Topik yang dikaji dalam kegiatan berhubungan dengan materi penelitian. Materi penelitian seringkali dianggap sulit untuk dilakukan, Respons positif nara sumber, mahasiswa dan dosen mengikuti kegiatan selama satu bulan, dapat memberikan potret bahwa kegiatan ini menarik untuk ditindaklanjuti sebagai kegiatan rutin yang akan membangun fundasi untuk melakukan kajian lebih lanjut, dan menarik untuk digali dan didiskusikan dan ditindaklanjuti menjadi penelitian yang sesungguhnya.

Akhir kata diucapkan terimakasih semoga dapat bermanfaat dan bisa menambah pengetahuan bagi pembaca.

Salam,

Ketua Program Studi
Magister Administrasi/Manajemen Pendidikan

DAFTAR ISI

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Background

Research is an inevitable activities of humankind. Our ancestors did somekind of research too, that differentiate us from other living-beings. They invented simple tools that were very important for their survival. The most important invention was fire after tools for huntering animal, such as spears, knife which most of them were made of stones.

In a short way, along with the growth of the number of people and their migrations to several regions accompanied by cultural developments plus the growth of philosophy and finally religions, the human mind set also developed. As the first step towards the emergence of the thinking revolution was the emergence of the renaissance which began in the 14th century followed by the industrial revolution 1.0 in the 17th century which has been now developed into a 4.0 industrial revolution. Science and the technology as one of the outputs of knowledge has been reaching its development through research. Some research were breakthrough research which bring substantial knowledge and technology development and the main result is to improve people's welfare.

The Essences of Research

The essence of research is to uncover mysteries, phenomena or problems that humans encounter in their lives. Curiosity about many things is the main characteristic of humans too, and this has been seen since childhood. The mindset that seeks answers to problems found by humans makes humans find research methods. The earliest and simplest research methods humans use is the trial and error method. With this method, humans conduct experiments without careful design and calculation. Trial and error method is somewhat called a risky method, especially if this method is used for humans, because the possibility of failure is high. Often the discovery by this method is successful due to accidental factors. Therefore, this type of approach is no longer considered as the real research method. Over time, people refine research methods that were originally simple in design and can now be very complex because they involve many subjects, many research variables, treatment of subjects or populations that are also not simple, and big research funds is involved.

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Types and Scopes of Research

Although there are many classifications of research, in general they can be divided into two major parts, namely quantitative research and qualitative research. The main differences between the two research type is shown in Table 1.

Table 1. The differences between qualitative and quantitative research

Qualitative	Quantitative
The aim of qualitative analysis is a complete detailed description.	In quantitative research we classify features, count them, and construct statistical models in an attempt to explain what is observed.
The design emerges as the study unfolds	All aspects of the study are carefully designed before data is collected.
Researcher is the data gathering instrument.	Researcher uses tools (questionnaires or equipment) to collect data.
Data is in the form of words (interviews), pictures (videos), or objects (artifacts).	Data is in the form of numbers and statistics.
Qualitative data is more rich, time consuming, and less able to be generalized.	Quantitative data is more efficient, able to test hypotheses, but may miss contextual data.

The scope of research covers many fields of science, from basic to applied, as can be seen in Figure 1.
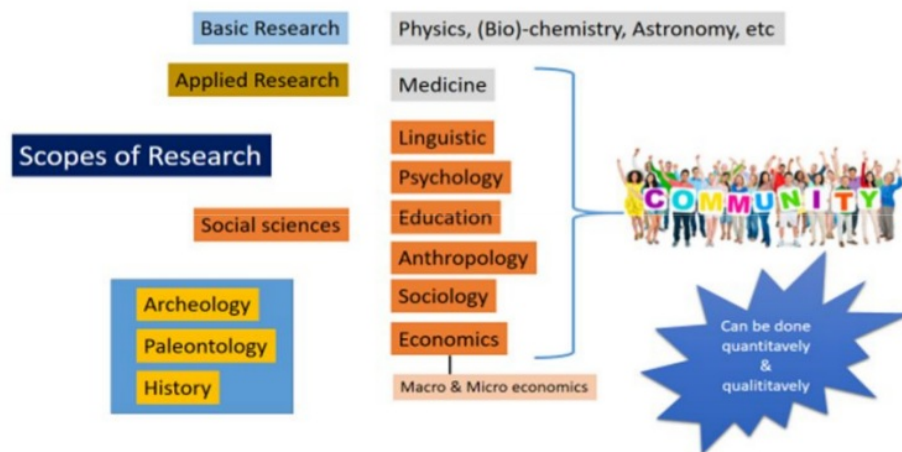

Figure 1. Scopes of research

Community Needs Implementation of Research

If we talk about community at large, then, we have to describe first, which community we are going to talk to? We can divide community into many descriptions or classifications according to many aspects too. For the purpose of this paper, I classify community simply by its generic functions, although, in reality, it is very complex. As we try to classify communities for the purpose of research activities, then, we should accomodate also what, where and which community that we want to be included in the research e.g. if our research aim is to measure the understanding and perception of adolescents on the use of contraception among the youths, then the community or the population of our research is the youths that could be from rural, urban or both. The purpose of the research is not always come from the researchers' point of view but from the communities' needs as well. Or, we have to find out the problems and try to overcome the problems in the community together with them.(1)

Community based research is most likely a participatory research in which researchers and community stakeholders (both individuals and organizations) form partnerships and co-construct research for the mutual and complementary goals of community. On the other hand, there are significant health disparities among communities, and this should be included in any efforts to close the gaps. (2,3)

Participatory Action Research – Community Action Research

Research that has been done a lot, especially in the social and health sector, uses a lot of patients or the general public only as research objects. Their involvement is little or even unnecessary, but we are increasingly aware that the involvement of patients or the community is very important. Research that involves people or the community under study is called participatory research. The people studied actively participated to find the problems they faced, even they were involved in finding the solution.(2,4) There are at least three main pillars of participatory research i.e. collaboration, mutual education and acting on results raised from research questions that are relevant to the community.

To carry out participatory research there are several things that must be considered:(5)
- Research goals and objectives
- Methods and duration of the project
- Terms of the community-researcher partnership
- Degree and types of confidentiality
- Strategy and content of the evaluation
- Where the data are filed, current interpretation of data, and future control and use of data and human biological material
- Methods of resolving disagreements with the collaborators
- Incorporation of new collaborators into the research team

- Joint dissemination of results in lay and scientific terms to communities, clinicians, administrators, scientists, and funding agencies

The community action research (CAR) methods and process are flexible resources which are tailored to the needs of the community and the aims and capacity of the researchers. As "participatory" is one of the main concepts of this approach, therefore, it is important to start the research by exploring, tapping and enlisting the problems or needs of the community first. This can be done usually by organizing focus group discussion (FGD) of which the members of the community are invited and actively participated in the discussion. This approach also build the ownership of the research by the local community. Formulating the project is a negotiation built on trust, honesty, humility, and mutual reciprocity. Establishing a collaborative project emphasizes building research relationships through continuous communication and adaptability. The multiple steps of conducting CAR is shown in Table 2.

Table 2. Overview of CAR principles, challenges and solutions (6)

Principle	Methodological challenge	Solution
Stage 1: Developing Partnerships and Identfying Needs and Resources		
Develop partnerships	How do you get busy people to participate across a long research cycle?	Seek broad community participation based on mutual benefit; engage different people across different research stages.
Identify local needs	How do you respect the community's priorities and keep members involved	Use dialogical methods such as individual interviews and group methods; invest considerable time to develop trust.
Identify community assets and constraints	What are hidden local skills and talents? What are individual and community and organizational resources? What are the constraints?	Employ community capacity inventories and community asset maps; document and be sensitive to constraints.
Use community as the unit of analysis	Who is the community? Who are	Invest time to grasp the dynamic,

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	legitimate representatives? What are important sociocultural influences?	complex, and heterogenous nature of community; look for representatives with extensive community contacts; draw on sociocultural theories.
Seek collaborative research relationships	How do you gain the competencies needed to engage in social change? How do you develop relationships across differences in culture, race, class, and gender?	Find community expertise across the roles of leaders, organizers, researcher, and educator; use accessible language; develop cultural competency; use multiple entrypoints within diverse communities; produce research on topics relevant to community needs.
Stage 2: Ongoing Research: Dialog, Reflection, and Analysis		
Respect local expertise	How do you balance power in the research relationship? How do you seek out different competencies?	Specify beneficiaries and responsibilities ahead of time; include community members in planning and conducting research
Consider sociocultural context	To what extent do existing social structures represent resources or constraints?	Leverage resources and develop solutions that work around constraints; constraints may implicate broader injustices that may involve larger-scale efforts involving

		structural changes.
Build local capacities	How do you develop local capacities and resources to support the program?	Begin with small, tangible changes that [1] solve immediate problems before attempting large-scale initiatives, develop skills that are valued locally.
Seek opprotunities for co-learning [4]	How do you engage the community in reflection, analysis, and interpretation?	Disseminate findings to the [4] community; integrate community resources into the research process; share control in the research process.
Manage conflict productively	How do you manage conflict that invariably arises around important issues with different interest groups?	Work with local people who understand the norms; get basic training in conflict resolution; within reason, [1] allow conflict to occur.

Stage 3: Action and Evaluation		
Share research output	Who receives credit in the research reports?	[1] Lay out policies and procedures for publishing from the project.
Develop sustainable programs of action	How do you ensure that the social intervention [1] continues after you leave the community?	Leverage existing social institutions to [4] develop sustainable interventions.
Conduct high-quality research	What are the appropriate validities by which to evaluate CAR?	Achieve different validities across several research cycles.
Act ethically	How is [1]	The community members should decide

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confidentiality protected when a community is involved in public discussions? How do you navigate IRB policies that do not reflect the realities of emergent designs?	ahead of time on procedures used to protect confidentiality; work within existing institutional review board policies by breaking the project into stages that are reviewed.

Community action research often requires a long implementation time. Therefore, high commitment from all people involved in this research is greatly needed. This type of research unlikely takes place in only one cycle, because there must be time to reflect after the action and observation of the action carried out. Reflection is an activity when everyone involved sees or get a particular notion on what had has happened during and after the end of the study, by critically analyze the process and the results of the study (see Figure 2).
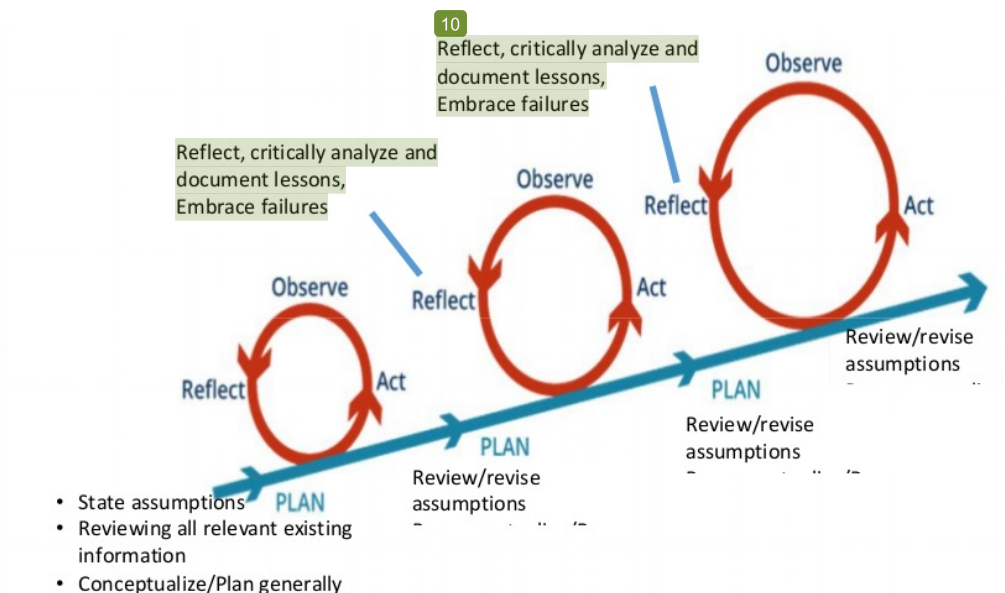

Figure 2. Participatory/Community Action Research cycle

Stunting: Indonesia's Current Health Issue

One of the current public health issues facing Indonesia is stunting. Stunting is associated with the higher incidence of degenerative diseases in the later stages of life. According to data from National Basic Health Survey (*Riskesdas, Riset kesehatan dasar*) 2010 the prevalence of stunting among toddlers and infants was 35.6% with a

higher prevalence rate among infants aged 12-23 months (40.4%).(7) This issue must be addressed not only from the health sector but various aspects involved either directly or indirectly. All stakeholders are now involved in this issue, including tertiary institutions. (8,9)

At present the medical faculty of the Universitas Kristen Indonesia (UKI) is included in the national stunting study group funded by the Ministry of Health of the Republic of Indonesia. The target area for the stunting project carried out by the UKI medical faculty is in Sumedang, West Java. Currently we are collecting basic data that will be information in determining the strategy to be taken to overcome the stunting issue. The Sumedang Regency Government works closely with the UKI medical faculty and in collaboration with local residents. Students who are currently attending public health internship are involved in taking basic data. This research is a real contribution of higher education to health issues in the community.

Summary

Research is a human effort to uncover things that are not yet known or are still partially known and it starts with inquiry to a certain phenomenon, case or problem. The nature of research can be basic or applied. The aim of basic research is to find or disclose fundamental phenomena and the results of the basic research usually can not be utilised directly, whereas applied research used to find direct solution to the problems.

Participatory or community action research is a research that include the community to be involved in planning, finding the problems or needs and looking the best solution to be implemented. This approach will also increase the capability of the community to solve their own problems.

Ethical issues should also be considered in CAR or PAR while subjects or the whole community who actively take part should be respected as human being with their privacy matters.

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