

DOI: <http://dx.doi.org/10.33846/hn80205>  
<http://heanoti.com/index.php/hn>



## RESEARCH ARTICLE

URL of this article: <http://heanoti.com/index.php/hn/article/view/hn80205>

## Action Research as an Ideal Method for Introducing Research Products in the Field of Public Health

Heru Santoso Wahito Nugroho<sup>1(CA)</sup>, Sherly Jeniawaty<sup>2</sup>, Karno<sup>3</sup>, Atik Badiah<sup>4</sup>, Rekawati Susilaningrum<sup>4</sup>, Abdullah Al Mamun<sup>4</sup>

<sup>1(CA)</sup>Health Department, Poltekkes Kemenkes Surabaya, Indonesia; heruswn@gmail.com (Corresponding Author)

<sup>2</sup>Midwifery Department, Poltekkes Kemenkes Surabaya, Indonesia

<sup>3</sup>Environmental Health Department, Poltekkes Kemenkes Surabaya, Indonesia

<sup>4</sup>Nursing Department, Poltekkes Kemenkes Yogyakarta, Indonesia

<sup>5</sup>Midwifery Department, Poltekkes Kemenkes Surabaya, Indonesia

<sup>6</sup>Knowledge Dynamics, Rangpur, Bangladesh

### ABSTRACT

Currently, there is a proliferation of public health research that produces products for society. Ideally, this product can be used by the public so that its benefits are truly real. This scientific article aims to introduce strategic steps in producing and introducing research products to the public. Research that produces products is ideally carried out using the "Research and Development" method, namely a series of systematic steps that can produce reliable products. Meanwhile, to introduce the use of these products in society, a series of strategic steps called "Action Research" are also required. This step consists of several cycles according to needs, where each cycle consists of planning, acting, observing and reflecting. Thus it is concluded that in the field of public health, "Action Research" can be used to introduce products from "Research and Development".

**Keywords:** public health; product; research and development; action research

### INTRODUCTION

In the health sector, research is often found that produces products, which are ideally carried out using the "Research and Development (R&D)" method.<sup>(1)</sup> This method is a systematic set of steps that begins with research and data collection, followed by careful planning, product draft development, and field trials. After that, product revisions were carried out based on the test results, further field trials, and improvements to the final product. Apart from product development, R&D also focuses on testing product effectiveness. This method allows researchers to adapt products to market needs and ensure that they meet desired quality standards.<sup>(2)</sup>

In more detail, the R&D steps are:

- 1) Research and data collection, namely literature studies to obtain a theoretical basis and field studies to measure needs.
- 2) Product planning, namely determining the purpose of using the product, target users, and product components
- 3) Initial product development or rough draft of the product
- 4) Initial field trials to test the product in real conditions and identify necessary improvements
- 5) Refinement of initial product based on trial results
- 6) Main trials to test product effectiveness on a wider scale
- 7) Operational product improvements after receiving input from main trials
- 8) Operational trials to ensure the product can operate effectively in everyday conditions
- 9) Improve the final product after getting feedback from all trials
- 10) Dissemination and distribution of products that have been developed.<sup>(3)</sup>

Examples of R&D results in the field of public health are green products to minimize negative impacts on the environment, recycled plastic to reduce the amount of plastic waste, biodegradable materials that can decompose naturally, educational games for children, and so on.

### INTRODUCING RESEARCH PRODUCTS TO THE PUBLIC THROUGH ACTION RESEARCH

Ideally, R&D products such as the example above are introduced to the public through action research.<sup>(4)</sup> This method includes a number of cycles, where each cycle consists of a series of strategic steps,<sup>(5)</sup> namely:

- 1) Planning which includes problem identification, goal setting, and intervention strategies using the product. In this stage, researchers must clearly articulate the problem they want to address and set specific, measurable, achievable, relevant, and time-bound (SMART) goals.
- 2) Acting, namely implementing product use according to plan. In this stage the researcher must be proactive in implementing the plan and be ready to make adjustments if necessary.
- 3) Observing which includes data collection, observing the process and results of product use, data analysis. This stage requires researchers to be careful and objective observers, ensuring that all data that has been collected is truly accurate and reliable.
- 4) Reflecting, namely evaluating the entire process and research results (product use), reflecting on what has been learned, and formulating steps for the next cycle. In this stage, researchers must be critical of the process and results, identify successes and failures, and plan improvement efforts for the next iteration of product introduction research.

This process is not only beneficial for the product or solution development process that has been found through action research, but also in the professional development of the researchers and practitioners involved. Thus, action research is not only a tool for practical problem solving, but also a method for continuous learning and development. Through cycles of planning, acting, observing, and reflecting, researchers can continually improve their practice and make meaningful contributions to knowledge and understanding in their field.

### CONCLUSION

Ideally, public health research that produces products through the R&D method is followed by introducing the product to the public through the action research method.

### REFERENCES

1. Garney WR, Wilson KL, Garcia KM, Muraleetharan D, Esquivel CH, Spadine MN, Panjwani S, Ajayi KV. Supporting and enabling the process of innovation in public health: the framework for public health innovation. *Int J Environ Res Public Health*. 2022 Aug 16;19(16):10099. doi: 10.3390/ijerph191610099.
2. Brem A, Wolfram P. Research and development from the bottom up - introduction of terminologies for new product development in emerging markets. *J Innov Entrep*. 2014;3(9).
3. Mohnen P. R&D, innovation and productivity. In: ten Raa T, Greene W. (eds). *The Palgrave Handbook of Economic Performance Analysis*. Palgrave Macmillan, Cham; 2019.
4. Medda G. External R&D, product and process innovation in European manufacturing companies. *J Technol Transf* 45. 2020;339-369.
5. Urbano D, Turro A, Aparicio S. Innovation through R&D activities in the European context: antecedents and consequences. *J Technol Transf* 45. 2020;1481-1504.
6. Nugroho HSW, Ibrahim I, Suparji, Sunarto, Hardjito K, Sillehu S, Selasa P, Budiono A, Badijah A, Irianti E, Suiraoka IP, Setiawan. Action Research sebagai Pendekatan untuk Meningkatkan Kualitas Program Kesehatan. *Global Health Science*. 2021;6(2):67-74.
7. Francisco S, Forssten Seiser A, Olin Almqvist A. Action research as professional learning in and through practice. *Professional Development in Education*. 2024;50(3):501-518.
8. Manfra MM. Action research and systematic, intentional change in teaching practice. *Review of Research in Education*. 2019;43(1):163-196.