

<Practice Report>

Competency-led overseas field training program by team in the Philippines

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Abstract

In order to improve competency items in public health using the team learning approach, a field training program of the National Institute of Public Health (NIPH), Japan was conducted in the Philippines in collaboration with the College of Public Health (CPH), University of the Philippines Manila (UPM).

This field training was carried out by the trainees of International Health Course at the National Institute of Public Health, Japan using problem-solving approach for six weeks. Moreover, an over-all evaluation of the overseas field training program was done, and pre- and post- tests were also conducted to assess the achievement of the field practice objectives using six specific behavioral objectives (SBOs).

The overall review of the field practice showed that its contents, usefulness and subject (understanding for field training), teamwork and instruction were highly evaluated. However, a few team members felt that there was still room for improvement for teamwork and instruction. Using the six-point scale of each SBO in the pre- and post-tests, the trainees rated themselves to have improved in all of the SBOs in terms of enhancing their knowledge and skills.

The specific behavioral objectives are important measures to promote practical ways of thinking about problem solving. Providing a learning opportunity and achieving the objectives set as a team in the field practice was found helpful in improving the trainees' level of competencies.

keywords: competency-led, field practice by team, specific behavioral objectives, evaluation

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I. Introduction

The eight Millennium Development Goals (MDGs) were enacted in 2000 to achieve world-wide action, equality, and justice by 2015. Major international conferences held during the 1990s led to the MDGs. Three of these Millennium Development Goals (MDG4: reduce child mortality, MDG5: improve maternal health, and MDG6: combat HIV/AIDS, malaria, and other diseases) are directly related to health. However, the diversification of health problems under the impact of high-speed social change is accompanied by changing health needs of people, and it seems to be difficult to achieve goals of MDGs by 2015, particularly in sub-Saharan Africa [1, 2].

In response to this changing situation, improving the

quality of current health workers who are responsible for providing good quality of health care services is an urgent issue as part of health care systems. And the WHO Health Report 2006: Working Together for Health, presented challenges to health workers, challenges which, it can be claimed, are urgent and vital problems [3].

While referring to Master of Public Health (MPH) equivalent course with concentration on International Health at the National Institute of Public Health (NIPH) intended to produce competent international health professionals to deal with such circumstances, we examined the most effective way of Overseas Field Training Program from the perspective of competency-based education (trainees-centered with the degree of acquisition of knowledge and skills suited to the working situations, duties and roles as the units).

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II. Overseas Field Training Program by Team

The training period of MPH equivalent with concentration in International Health course, has been one year since 2004 and was held for the seventh time in 2010. The lectures and exercises of this course are conducted entirely in English. The number of trainees ranged from 5 to 11 (Table 1) and these are long-term JICA trainees, WHO fellows and Japanese trainees. The Field Training Program was held in Japan until 2005, but difficulties were faced in Japan since English is the form of communication in the field training program and this was noted to be a hindrance in achieving the objectives during the implementation of the field training program. The Field Training Program, therefore, has been held in the Philippines with the cooperation of the College of Public Health of the University of the Philippines Manila since 2006.

The Overseas Field Training Program is intended to help improve the qualities required by global public health professionals using a team-learning approach. In particular the acquisition of learning objectives of the Overseas Field Training Program are based on 1) team learning, 2) process-oriented study, 3) facilitation skills, 4) team building, 5) leadership, and 6) communication skills. The Overseas Field Training Program is conducted using the team-based problem-solving approach composed of trainees from different countries including Japan and from various professions.

III. Planning, Implementation, and Evaluation of Overseas Field Training Program

1. Planning and Implementation of Overseas Field Training Program

This part explains the Overseas Field Training Program

for 2006-2010. This program took a total of six weeks: four weeks in preparation in Japan (National Institute of Public Health) and two weeks of field training in the Philippines. During the period of preparation in Japan, the background to and goals of the overseas Field Training Program were explained to the trainees, with particular efforts made to aggressively urge them to take part in overseas Field Training Program to achieve the learning objectives cited above.

It included activities in the lecture hall and in the field. In the lecture room, documents and Field Training Program reports were used, field reports presented on DVD, web-site searches conducted on the Internet and views exchanged with the coordinator from the College of Public Health of the University of the Philippines Manila, and challenges facing public health in the Philippines were identified and selected.

The purpose of the practice in the field in the Philippines is to learn to work as a team to identify problems of public health importance, search for solutions, and offer proposals in the field. Particular emphasis is placed not on field work by individuals, but on trainees with different cultural practices, knowledge, skills and experience forming a team to solve address issues affecting the health of the public.

Table 1 shows that for the past 5 years (2006-2010) the total number of trainees that underwent Field Training Program is forty (40). Public health issues tackled by the trainees were human resource development (2006), training needs of midwives (2007), risk assessment of TB transmission (2008), motivating factors behind high delivery rates of the birthing facility (2009), and youth smoking prevention program (2010).

2. Evaluation of Overseas Field Training Program

An overall evaluation of the Overseas Field Training Program was made based on individual evaluation made by the trainees. In addition, trainees were also asked to

Table 1 Overseas Field Training Through the Years

Year	Title	No. of Trainees
2006	Human Resource Development in Rural Health Units and City Health Offices in the Philippines	11
2007	Training Needs among Midwives in Two Cities in the Philippines	5
2008	Risk Assessment of TB Transmission in Health Centers of Marikina and Paranaque , Philippines	10
2009	Investigating the Motivating Factors Behind High Delivery Rates of the Urban HEART Birthing Facility in San Martin de Porres, Philippines	7
2010	Youth Smoking Prevention Program: Influence on Smoking Prevention Program Among Secondary School Students in Paranaque City, Philippines	7

rate themselves before and after the training using the Specific Behavioral Objectives (SBOs), with six target areas of educational achievement, which they need to achieve in the duration of their overseas field training.

Table 2 presents the trainees' evaluation of the overseas training program. Regarding challenges and contents of the Overseas Field Training, most replied "Very satisfied" and "Satisfied." Concerning usefulness, most of the trainees responded either "Useful" or "Very useful." When asked about the degree by which they understood the subject, majority answered "Well-understood." About the team work, the commonest answer given by the trainees was "Good". Finally, regarding instruction, most trainees answered either "Good" or "Very good".

The utilization of specific behavioral objectives started in 2008 where only 4 objectives were used. From 2009-2010, six (6) specific behavioral objectives were used in the Field Training Program. We added SBOs No. 3 and No. 4 to intensify the process of field practice by a team and contribute to solving the problem in the field through lessons learned and trainees' individual reports of the field practice. Only the results from 2009-2010 are included in this report.

The six achievement goals which should be improved through the Overseas Field Training Program are: 1. Able

to practice team work effectively with understanding and respecting various backgrounds (occupations, specialty, culture, etc.) of team members and different opinions; 2. Able to find your own role positively and take the initiative in teamwork; 3. Able to conduct and manage activities effectively in given conditions in the process designed; 4. Able to set a theme to meet needs in the field after considering intention of the authorities concerned; 5. Able to select a productive problem-solving and tackle the problem to be solved; and 6. Able to present (results and recommendations) to the people concerned in the field by using communication skills (by oral and paper) and concepts. Six scales were used in rating the above-mentioned goals which ranged from ①Do not know any of the concepts and way of thinking, to ⑥Able to use the related knowledge and skill comprehensively and review critically and also instruct other persons). The evaluations were carried out before and after the training.

The results show that despite some scattering, knowledge and technical skill levels in all achievement goals were higher in the post-training evaluation results than in the pre-training evaluation results. Most of the trainees answered either 5 or 6 for all of the SBOs/level of knowledge and skills in their post-training survey (Table 3).

Table 2 Evaluation of Overseas Field Training Program

		2006 (n = 11)	2007 (n=4)	2008 (n = 10)	2009 (n=7)	2010 (n=7)
Challenges and Contents	Very satisfied	7	2	4	2	6
	Satisfied	3	2	6	4	1
	Dissatisfied	1			1	
	Very Dissatisfied					
Usefulness	Very useful	7		6	2	5
	Useful	3	4	4	5	2
	Not very useful					
	Not useful at all					
Subject (Understanding for Field Training)	Well Understood	8	2	6	5	7
	Understood	3	2	4	2	
	Not very understood					
	Could not understood					
Team work	Very good	2		2	1	5
	Good	7	4	6	6	2
	Bad	2		2		
	Very bad					
Instruction	Very good	5		5	2	5
	Good	5	4	5	5	2
	Bad	1				
	Very bad					

Table 3 Changing Levels of Knowledge and Skills Concerning SBOs of Overseas Field Training in 2009 and 2010

SBOs / Level of knowledge and skills			①	②	③	④	⑤	⑥
1. Able to practice team work effectively with understanding and respecting various backgrounds (occupations, specialty, cultures etc.) of team members and different opinions.	2009	Before		2		3	2	
	(n=7)	After				4	3	
	2010	Before			4	2	1	
	(n=7)	After				2	1	4
2. Able to find your own role positively and take the initiative in teamwork.	2009	Before		2	1	3	1	
	(n=7)	After				2	3	2
	2010	Before			4	2	1	
	(n=7)	After				1	1	5
3. Able to conduct and manage activities effectively in given conditions in the process designed.	2009	Before	1		4		2	
	(n=7)	After			1	1	4	1
	2010	Before		1	1	5		
	(n=7)	After				1	1	5
4. Able to set a theme to meet needs in the field after considering intention of the authorities concerned.	2009	Before	1	1	3	1	1	
	(n=7)	After			1	1	3	2
	2010	Before		2	1	3	1	
	(n=7)	After				2	1	4
5. Able to select a productive problem-solving and tackle the problem to be solved.	2009	Before		3	1	2	1	
	(n=7)	After			1	1	3	2
	2010	Before		3	2	2		
	(n=7)	After				1	2	4
6. Able to present (results and recommendations) to the people concerned in the field by using communication skills (by oral and paper) and concepts.	2009	Before		3	2	1	1	
	(n=7)	After			1	2	2	2
	2010	Before		2	2	2	1	
	(n=7)	After				1	2	4

Level of knowledge and skills

- ① Do not know the concept and the way of thinking at all.
 ② Know the concept and the way of thinking.
 ③ Understand the comprehensive concept, but cannot practice in the field.
 ④ Able to practice in the field if you have necessary support.
 ⑤ Able to practice in the field and explain to other persons.
 ⑥ Able to use the related knowledge and skill comprehensively and review critically and also instruct other persons.

SBOs: Specific Behavioral Objectives

IV. Discussion

The Overseas Field Training Program was implemented using a problem-solving approach to a team of diverse members such as trainees from various countries including Japan and from a variety of occupation areas. This problem-solving approach tackled certain public health issues in the Philippines. According to literature review, context specific health issues are identified and used by a CBE (Competency-based Education) program to determine the desired competencies on improving the health of the community it serves through the available health data [4]. These may include areas on global burden of disease; health implications of travel, migration and displacement; social and economic determinants of health; population, resources and environment; globalization of health and healthcare; healthcare in low-resource settings; and human rights in global health [5]. In this training program, public health issues included the human resource development [6], training needs of midwives [7],

risk assessment of TB transmission [8], motivating factors behind high delivery rates [9] and youth smoking prevention program [10].

It was shown that the self-evaluations of the overseas field training program (National Institute of Public Health, College of Public Health of the University of the Philippines Manila and the selected fields) by the trainees from 2006 to 2010 are generally high. Among the five public health issues tackled on the program, the training under Youth Smoking Prevention Program: Influence on Smoking Prevention Program among Secondary School Students in Paranaque City, Philippines had the highest satisfaction, subject understanding and usefulness as evaluated by the trainees in 2010. This does not intend to show comparison but presents a glimpse of the feedback of the trainees for each training period.

In general, all the covered public health issues (2006-2010) in the program had good evaluation in terms of challenges and contents, usefulness, understanding of the subject, team work implementation and instruction as rated by the trainees during each training period.

Also, the results demonstrated that the trainees believe that their knowledge and technical skills improved after the training program, as shown by the evaluation results. Majority of the trainees for 2010 rated that they were able to practice in the field given the necessary support and to use the related knowledge and skill comprehensively and review critically and also instruct other persons after undergoing the training program (from lower level ratings of Level 4 to Level 6) for all the given achievement goals.

The field practice of this program placed a particular emphasis on the trainees with differences on cultural practices, knowledge, skills and experience forming a team to address problems. However, as the results suggested, improvement is necessary in the area of nurturing and implementing team work, which is one of the acquisitions of learning objectives. This is a problem related to the diversity of team members or to the display of leadership. It is probably necessary to set learning activity goals based on the competency criteria, under areas concerning teamwork and leadership respectively. In addition, it is also important to set competencies which can be understood as capacity displayed as a team; not only based on learning at the individual level. In relation to this, it has been emphasized in a study by Frenk et al [11] that professionals are falling short on appropriate competencies for effective teamwork and they are not exercising effective leadership to transform health systems. They also mentioned that for interprofessional education, teamwork is needed in response to the transformation of health systems. In infectious diseases, non-communicable diseases or prevention and control of injuries, the collaboration of multidisciplinary professionals on work is necessary. Leadership, on the other hand, is the one which serves as the central focus of a core competency model outlined for Doctor of Public Health (Dr.PH) education. It is viewed as a critical integrator for other skills such as advocacy, critical analysis, communication, management, community/cultural orientation, professionalism and ethics [12]. A competency-based education focusing on leadership, policy formation, management of interdisciplinary teams is essential for the development of professionals in low-resource settings [13].

It has been pointed out that the learning acquisition area set in this case is a vital factor in improving trainees' ability to consider the practical problem-solving process. Therefore, studying the process of not only answering "What" questions, but also of answering "How" questions can be considered useful when solving similar problems that they are likely to encounter in the future. This is found to be cohesive with the Miller's pyramid (Figure 1). In this pyramid, the differing levels of educational goal states are illustrated, from the levels of "knows" or

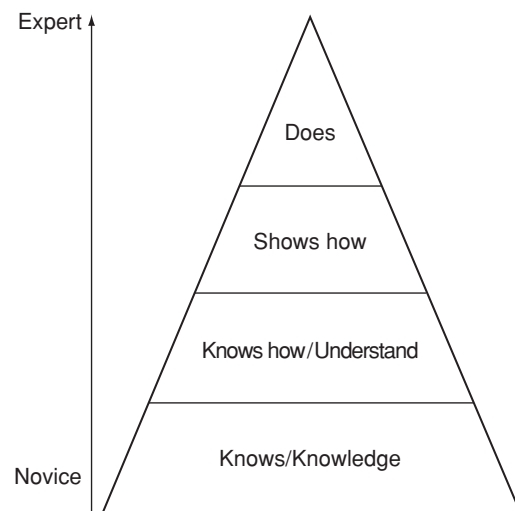


Figure 1 Miller's Pyramid of Assessment (adapted from Miller, 1990) [14]

recitation of facts and "knows how" pertaining to applied knowledge to scenario at the bottom of the pyramid, the advanced learning is more weighted in levels of "shows" or the demonstration of skill to the top part which is "does" or the performance. This gives importance to the process leading to practical problem solutions, selecting a solution to realize goals as a team, and providing opportunities to learn by experience on improving the trainees' mastery of competencies.

This study wants to support that improvements in global health can only be realized through the development of a workforce that has been educated to promote health and to care for those with disease, increasing attention into implementing competency-based education and training [15]. However, in contrary to this, another study has concluded that competency-based curriculum cannot describe what it is to be a professional. It was emphasizing that the concept of competency-based training is insufficient to describe the higher cognitive skills and the structure of complex knowledge, skills and problem-solving necessary for professional performance. It also lacks the necessary emphasis on the experiences of working in service alongside other professionals [15]. Therefore, this aspect which is considered a weakness must be emphasized and given attention for developing a competency-based training.

After being planned, implemented and evaluated, the improvement of this competency-led training program shall not only be focusing on the teamwork, leadership but to the complex knowledge and skills necessary for professional performance which can be later fully adapted to actual workplace. With this, a more consistent and effective model for a competency-based education will be developed.

V. Limitations of the Study

In this report, we included only the self-evaluation made by the trainees for "Evaluation of Overseas Field Training Program and Changing Levels of Knowledge and Skills concerning SBOs of Field Training Program in 2009-2010" which could be very limited in nature. It would have been better if the trainees were asked why they gave such ratings wherein more details about the ratings given would have been determined. Exit interviews would have also been of help in explaining the ratings given by the trainees, however, this was not done for the field practice.

VI. Conclusion

To plan, implement, and evaluate the Overseas Field Training Program, it is essential to clarify the learning objectives as a team and how these can be acquired. It is presumed that it is possible to further improve the effectiveness of the Overseas Field Training Program aimed at improving competency by performing evaluations based on criteria set for the level of competency necessary under each acquisition of learning objectives. There is still scope to verify whether and how competency-led training can lead to more capable public health professionals.

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コンピテンシー獲得を目指した海外合同臨地訓練について

抄録

チーム学習としての公衆衛生分野におけるコンピテンシーの向上を目指し、国立保健医療科学院における海外合同臨地訓練がフィリピン大学公衆衛生大学院の協力のもと実施された。

国立保健医療科学院の国際保健コースの研修生によって、海外合同臨地訓練は問題解決型学習アプローチを用いて6週間実施された。また、研修生に対してその到達度をみるため6つの行動目標を使用して事前と事後テストが行われた。さらに、海外合同臨地訓練のプログラム全体についてのレビューも実施された。

海外合同臨地訓練プログラムの全体的なレビューは、訓練の内容と理解度は高く評価されていた。しかし、チームワークと合同臨地訓練の適用性については、それぞれの年度のチーム構成員から満足していないことも報告され、協同的なチームづくりに改善の余地があることも示された。しかしながら、合同臨地訓練を通してどのように知識やスキルを習得するかを経験し、すべての行動目標は事前時評価と比べ改善されていた。

行動目標は問題解決に至るプロセスの思考と実践的な考え方を養ううえで重要な要因となっている。また、学習機会を提供することと合同臨地訓練の目的を達成することは、研修生の公衆衛生分野におけるコンピテンシー項目の獲得の向上と人材育成に寄与したと考えられる。

キーワード：コンピテンシーの獲得，合同臨地訓練，行動目標，評価