

## Using Organization Development Concept to Conduct Administrative Assessment of Health Promoting Schools in Taiwan - A Preliminary Study

Jen-Jen Huang, PhD<sup>1</sup>; Gwo-Liang Yeh, PhD<sup>2</sup>; Chie-Chien Tseng, PhD<sup>3</sup>; Wei William Chen, CHES, PhD<sup>4</sup>; Yin-Jinn Hwu, PhD<sup>5</sup>; Donald Dah-Shyong Jiang, PhD<sup>6</sup>

Author<sup>1</sup> is affiliated with Min-Syong Junior High School. Authors<sup>2,3,5</sup> are affiliated with the Department of Health Promotion and Health Education at National Taiwan Normal University. Author<sup>4</sup> is affiliated with the University of Florida. Author<sup>6</sup> is affiliated with the Centers for Disease Control, Taiwan. **Contact author:** Chie-Chien Tseng, National Taiwan Normal University, No.162 Hoping E. Road Sec 1, Taipei, Taiwan 106, Taiwan, R.O.C; **Phone:** 886-2-23657907; **Fax:** 886-2-23630362; **Email:** chiechien@ntnu.edu.tw.

Submitted January 14, 2009; Revised and Accepted May 19, 2009

---

### *Abstract*

*The Health Promoting School (HPS) programs in Taiwan were initiated and implemented with funding from Department of Health and Ministry of Education during the initial phase. The purpose of this article was to describe the application of organization development (OD) concept in the administrative assessment of HPS programs and to present results of administrative assessment specifically related to health promoting schools implementation. It is hoped that results from the study will provide useful information for decision making and policy implementation regarding health promoting schools in countries with similar situation. Questionnaire and face-to-face interview were conducted based on the school organization development concept. Forty-eight schools from the Phase one health promoting schools were selected to participate in the survey. In addition, one school was selected for face-to-face interview. The qualitative assessment included: (1) organization development structure responsible for the implementation of HPS, (2) personnel responsible for the implementation of HPS, (3) community participation, and (4) support and resources for the HPS. Twenty-seven health promoting schools responded to the electronic survey with response rate of 56.3%. Survey results showed that majority of the HPS projects were implemented by personnel within the existing school organization. Eighty-six percent (86%) of the schools had their health education teachers or school nurses implemented the HPS project. Majority of schools (86%) implemented the HPS project with participation of community groups. All schools indicated their HPS project was supported by school administrative organization. On the other hand, 76% of schools indicated they did not have enough time and manpower to carry out the HPS project. Organization development in schools could be a useful tool to assess the implementation of HPS. HPS in Taiwan showed good organization development structure to support their implementation. However, improvement in resource integration and closer partnership with local government and community could be helpful in resolving the problems of time constraints and manpower shortage.*

**Key Words:** Health Promoting School, Organization Development, Administrative Assessment.

---

## Introduction

The children and adolescent health problems including smoking, teenage pregnancy, HIV infection, drug abuse, accidents, nutrition and mental health problems are major concerns in Taiwan as well as around the world. Available data showed the adolescent smoking rate had increased to 6.5% in Taiwan.<sup>1</sup> Teenage pregnancy among girls between fifteen to nineteen years old was getting worse. The rate had increased to 8.5%.<sup>2</sup> It was also reported that one out of every twenty-five AIDS patients were teenagers under nineteen years old.<sup>3</sup> Rate of drug abuse in high school students was 1.6%<sup>1</sup> and 12% of the elementary school students were overweight.<sup>4,5</sup> These data indicated that there were increased health problems among adolescents in Taiwan.

Along with this statistics, there also was a reduction of required hours of health instruction in both elementary and middle schools due to major change in curriculum structure in Taiwan in 2001. The merge of health and physical education curriculum resulted in reduction of health instruction from 2 hours to one hour a week for elementary schools. For the middle schools, the change resulted in an increase of health instruction on the surface, but in reality the increase was not adapted and implemented because of the academic pressure for middle school students. Only first year in middle school had implemented health instruction for students, but there were no health instruction for second and third year students. As a result of these curriculum changes, there were insufficient hours of health instruction to influence students' health knowledge, attitudes, and behaviors and students' health problems were further deteriorated.<sup>6</sup> How to reduce health risk factors and promote health among school aged children is a major concern of professionals in health education in Taiwan. Health Promoting School (HPS) has been suggested as one of the strategies for addressing these problems. A health-promoting school is where all members of the school community work together to provide students with integrated and positive experiences and structures which promote and protect their health.<sup>7</sup>

### Health Promoting Schools in Taiwan

School health programs had been implemented for many years in Taiwan. There have been solid foundations set in policy, legislative support, organizations, government budgets, researches, and preliminary evaluation.<sup>8</sup> These improvements have made significant contribution to the health of students

and employees in every level of school. In 1997, Ministry of Education (MOE) of Taiwan issued "Guidelines for School Health Programs" as the framework of school health works and launched the School Health Promotion Program in 2001. In 2002, the School Health Acts was approved and published. In the same year, Department of Health (DOH) of Executive Yuan of Taiwan also started the Health-Promoting School Program. In 2003, DOH published the similar version of Guidelines for Health-Promoting School. One year later, the Health-Promoting School Program funded by both DOH and MOE recruited 50 elementary and middle schools to participate in the phase I of the HPS.

By the World Health Organization's (WHO) definition, a health promoting school is one that consistently strengthens its capacity for living, learning and working, which engages health and education officials, teachers, students, parents, health providers and community leaders in efforts to make the school a healthy place.<sup>8</sup> The heart of a HPS program is to connect the school and community, and to promote the health of community residents.<sup>9</sup>

Although health promoting actions can also be implemented in hospitals, communities, work places, and schools, but schools are thought to be different from others by many health promotion researchers.<sup>11</sup> Schools can conveniently coordinate all activities in the same time. School is the place that all important skills of life are incubated. The basis of life style is also formed during the time spent in school.<sup>10</sup> As health promoting school creates the new direction to combine health promotion and education, it also has the goal to achieve healthy lifestyle for all members in the school by developing supportive environment and networks and by coordinating efforts within school and between school and community.<sup>11</sup>

Additionally, the emphasis of a positive learning and teaching environment from HPS program can help to provide students better self-awareness in health and quality of life and therefore to have better potential to concentrate on their learning missions.<sup>12</sup> Schools can also play an important role to initiate community health development project and to allow both students and community residents accountable for health promotion policy in the community.<sup>13</sup>

In order to develop and implement health promoting school projects collaboration of teachers and outside organizations is needed.<sup>14</sup> Health promoting school focuses on the balance between emphasis of curriculum development, classroom teaching and the

enhancement of interlinks between school, family, and community. These three are core elements of the integrated HPS projects for student health.<sup>15</sup> The concept of HPS, a comprehensive school health program, is different from health education program in the past which focused only on instructional efforts in the classroom. The concept of HPS incorporates all health related frameworks and contains six major categories: school sanitation policy, physical environment of schools, social environment of schools, community partnership, personal health skills, and health services.<sup>16</sup> As a result, the new concept of HPS illustrates the needs for reexamination of school organization as well as rethinking of the role for teachers.

Differed from school health and disease prevention programs in the past, the HPS project takes a comprehensive policy approach and changes policy making and project implementation strategies. It uses the bottom-up approach instead of top-down mandated execution. Project implementation requires significant involvement of teachers, students, school administrators, parents, and partners in the community. The uniqueness of HPS project is to emphasize the involvement of all members in the school to participate in HPS project development and implementation.

In summary, HPS not only emphasizes the student involvement, the capability of problem solving and decision making in health protection, it also raises the concerns of school environment and uses the community resources to improve health of the individual and school. In policy operation, it changes from the top-down mandated execution to the bottom-up model. It encourages all school members including teachers, staffs, and students to work together for school health management. It allows members to understand health is their right and is also their responsibility. From exploring the need of health in the school to propose a school health promoting strategy for teachers and staff, the HPS program strives to integrate all resources in the community; to involve school, parents, and community in the program; to provide a healthy learning environment for students as well as to provide a healthy work environment for teachers. The HPS programs also strive to enhance health education, health activities, and health services, so all members in the program can apply the concept of health promotion to their daily life. To build up a HPS program, all above mentioned components need to be included. Therefore, it is necessary to reform the current school organization to fit the new working model. Consequently, organization development will

become an important basis for HPS program implementation.

### **Organization Development and School Organization**

In the last two decades, schools in Taiwan were under the pressure for higher academic achievement because of the complexity of social structure within the modern society and the competitiveness of global economy. Today, classrooms are made of more diverse background students and teachers have to face students from different culture, from families with devoiced parents and double income families. Consequently, students with lack of family support and parental participation are common in schools. Schools are expected to play a bigger role in this situation. To respond to this change, education action plan emphasizes on providing higher quality, better curricula and variety of educational methods, smaller class, reliable assessment systems, integrated education evaluation and more effective school organization. All members in school are asked to achieve higher standards to meet this change. How to keep up with the social development, accommodate the needs of social changes, and reform the education system have become key focuses for education development. The main focus of Organization Development (OD) is to respond to environmental changes and to improve organization function, especially when used as the basis of organization reform and with the emphasis that the power of reformation comes from the organization itself. This concept agrees with the trend of education reform supported by Education Reform Committee of Executive Yuan in Taiwan. The Education Reform Committee believed that schools should have higher independence in governance and management to stimulate the education reform inside the organization. The requirement of school organization development was thus created in this situation.<sup>17</sup>The term, school organization development, is described as the integrated and continuous reform process that a school takes to improve its ability to achieve higher education standards. During this process, pre-scheduled program, total involvement of the school members, and continuous self-improvement are emphasized.<sup>18</sup>

The school organization is traditionally thought to be a flat and decentralized structure.<sup>19</sup> It contains two levels, a smaller group of administrative level and a larger working group level composed of teachers. School organization is different from other organizations in many aspects. Its mission is to develop and educate students. The education process and methods are somewhat complicated and the

members in school are highly independent and well educated. In addition, the works are personal interest oriented and with emphasis on self-achievement. So when apply organization development to school organization, modification should be made to fulfill school requirements. The following characteristics should be noted when developing OD programs:

- (a) The traditional administrative structure can help schools to manage the changes of the environment.
- (b) There are always uncertainties during projects implementation because collaborative decision-making structures (i.e. collaboration between communities) do not exist.
- (c) Teachers seldom use collaborative problem-solving methods or just don't have the skills to operate within the existing structure.
- (d) Inter-school or intra-school organizations are often structured loosely and without a comprehensive system.<sup>20</sup>

Based on these characteristics of school organization, the development of school organization needs to focus more on creating the collaboration platform between teachers and parents and helping all members involved to develop the skills to use this platform. In order to strengthen the organization's ability to face the challenge from environmental change, the school needs the dedication of all members, active support and involvement from parents, and building of a climate for change in school. The principle of creating a collaborative decision making structure is to generate a high-involvement management model and use this model to motivate and enhance its members ability to positively respond to organization reform issues.<sup>21</sup> The aim of high-involvement management model in school is to create a different way of decision-making. It helps to change the traditional top-down process in which the administrative level made decision for everything. The new model releases the control power to all members in the organization, so every member can own part of the decision-making power and can contribute to school policy change to improve the organization.

From these concepts of school OD, it is clear that OD in school should pay equal attention to both top level and bottom level members and provide opportunities for all school members to become involved in the school organization development.<sup>22</sup> An effective OD includes theoretical foundation, high-involvement management, bottom-up concept, and program development based on local community needs and priorities.<sup>23</sup> Hou (1999) summarized from previous

researches and concluded that there are six elements that can affect school OD:<sup>24</sup>

1. Organizational environment: an organization should adjust itself to all powers that may influence the operation including political, administrative, media, and social factors.<sup>25</sup>
2. Vision and leadership: any organization should have vision. Vision is the goal that leads the organization to final destination and it should be the highest guiding principal.<sup>26</sup> The leader is the focal point of all activities in the organization. Researches on school organization development innovation and effectiveness showed that school principal played a pivotal role in the school reform process, but most principals did not initiate or promote the change of traditional top-down relationship.
3. Organizational culture: Culture of an organization includes all the facts, believes, meanings and values that most organization members accept. Different leaders, different members, different working processes, different systems, or different structures in the organization will have different culture.<sup>27</sup>
4. Organizational structure: The organizational structure dictates the positions and the related works in an organization. It also guides the operation and interaction between members in the organization.<sup>27</sup> Organizational structure is designed specifically for the goal of the organization. Therefore, organizational structure may be altered due to changes of environment, culture, vision, or leadership.
5. Work value, attitude, and behavior: Changes of culture and structure of an organization will affect the work value, attitude, and behavior of members in the organization. To promote a HPS program, the decision-making individual and the rest of members should share the common viewpoints related to the objectives and principles of the HPS. Health-promoting activities not only able to promote the HPS projects but also able to promote knowledge and the health status of the teachers themselves.<sup>28</sup> Thus, if teachers in school do not have healthy lifestyle or lack of health related professional expertise, it may negatively influence the quality of school health program.<sup>29</sup>
6. Organizational achievements: Good performance will provide positive impact to the organization. On the contrary, poor performance will drag down the organization and hinder the organization development.<sup>24</sup> A well managed and sustained organization may also experience periods of disorder, but good leadership will reduce the confliction and lead the organization through the difficult periods and finally become a high

performance team.<sup>24</sup> The process of OD includes the following procedures: (a) demand evaluation, data collection and analysis, (b) create motivation, identification and support for action of change, (c) set up an organization developing plan by all school members, (d) establish the common consensus of the action plan in all teachers, staffs and the administrative support to the project, (e) implement the project effectively, (f) finally, evaluate the results of the project, find out the barriers, and correct the errors for further improvement.

The concept of OD is consistent with the development of HPS and could be a good tool to examine the implementation of HPS, particularly in the area of administrative assessment. The phase 1 HPS programs have just been completed in Taiwan, but it has not been evaluated thoroughly.

## Purpose of the Study

The purpose of this paper was to use the OD concept as a basic framework to conduct an administrative assessment related to organization and implementation of the HPS programs in Taiwan.

## Methods

### Study Participants

All 50 schools in the HPS Phase I project in Taiwan were eligible and invited to participate in the study. Two schools dropped out of the Phase 1 HPS project midway and were not recruited. As a result, only 48 schools were recruited to participate in the HPS Phase I study. These 48 middle and elementary schools located throughout the Taiwan Island including north, east, central, south Taiwan and one elementary school was in an isolated island. The schools varied in size. There were 7 middle schools with three large size schools (more than 60 classes) and 4 mid size schools (13-60 classes). The rest were elementary schools with 5 large size schools, 22 mid size schools and 13 small size schools (less than 12 classes).

### Research Tools

A researcher-developed structured questionnaire was used to collect data from participating schools. The questionnaire was developed by a research team composed of three researchers specialized in health promotion and health education and three teachers from schools. It used the content validity and

triangulation methods to increase the authenticity of the questionnaire.<sup>30</sup> The administrative assessment questionnaire included five questions. For each question, respondents may select more than one response. The questions includes: (a) In your school which group was responsible for the implementation of HPS project? (b) Who were involved in the implementation of HPS project? (c) In the community the school located, what individuals and/or community groups participated in the HPS project? (d) Do you think the HPS project and related works received enough support from the school? (e) Do you think the HPS project had enough resource to implement the project?

In addition to the questionnaire, on-site interview with school principal and staff working on the HPS project was included to help validate the survey data. During the on-site interview, the following questions were asked: (a) What was your motivation and purpose to participate in the HPS project? (b) What was your experience in implementing the HPS project? (c) How was the HPS project implemented in your school? (d) What was the role of school principal played in the HPS project? What was the role of the staff in the HPS project? (e) In your experiences, what factors contributed to the success or difficulty of the development and implementation of the HPS project? And what factors enhanced or decreased people's interest in participating in the project? (f) What were the problems you experienced in the implementation of HPS project? How were strategies used to solve these problems? What kinds of resources and support needed for the project?

### Study Procedure and Data Analysis

The questionnaires were sent to each of the 48 schools by e-mail and collected from the directors of health service section after 3 weeks. Director of the health service section was the primary individual responsible for the correspondence and implementation of the HPS project. Twenty seven of the forty eight schools returned the questionnaires. The return rate was 56.3%. All returned questionnaires were coded and analyzed with SPSS software.

Several schools from the total 27 schools that returned questionnaires were further invited for on-site interview, but only one was able to participate in the interview due to time constraint. The on-site interview included campus tour, briefing, and interview with individuals who were responsible for implementation of the HPS project. The questions and interview guides were mailed to the school

before the visit. School principal, school nurse, and the teacher in charge of the general affair office in the school were interviewed. The visiting results, briefing materials, and content of the interviews were analyzed. The data collected from interview were further validated by follow-up phone call if there were questions.

## Results

Results of the survey are presented in four sections specifically related to administrative assessment including implementation of HPS projects, staff or individuals involved in the implementation of the HPS in school, professionals or individuals involved in the implementation of the HPS in the community, and resources for the HPS.

### Implementation of the HPS Projects

Majority (56%) of the schools implemented the HPS projects by the academic affairs office. Specific personnel that implemented the HPS project included 44% by members of the school health committee and 36% by members of health promotion team. Only 8% of the schools implemented by the head of school health office and 4% by school nurse. Some schools had several units involved in the implementation of the HPS projects including academic affairs office, personnel office, and other departments.

### Staff or Individuals Involved in the Implementation of the HPS in the School

Administrative assessment of individuals involved in the implementation of the project included school administrators, teachers, and other related staff members.

#### (a) School administrators

School administrators are principals or heads of various administrative offices in the school. In this survey, 76% of the schools had school principal involved in the implementation of HPS project. In addition, eighty percent (80%) of the schools had head of administrative office (i.e. Office of Academic Affairs) involved. Others included 12% from head of the General Service Office and 8% involved teachers from Student Counseling Office. Some schools had several administrators (school principal and heads of various administrative offices) involved in the HPS and resulted with multiple responses (percentages may exceed 100%).

#### (b) Teachers

Survey results showed that 86% of the schools had teachers involved in the implementation of the HPS project including both home room teachers and specific subject teachers. The other 14% of the schools sought help from school administration staff that have no teaching responsibility. Eighty percent (80%) of the teachers involved in the project were home room teachers and 56% of them also serve as specific subject teachers. Of those specific subject teachers, 56% were health and physical education teachers and 24% were general subject teachers. In addition, 12% of these teachers also had general sciences and technology teaching responsibilities and 12% also serve as arts and humanity teachers. Other teachers that involved in the implementation of HPS projects included teacher union representatives and representative of home room teachers.

#### (c) Other Individuals

Other individuals that involved in the HPS project included students, parents, staff, and health service aids. Majority of schools (72%) indicated that students were involved in the project implementation. In addition, 60% of schools showed parents participated in the project implementation. Parents usually participated in the project as volunteers or members of Parent Teacher Association. Furthermore, 28% of schools indicated school lunch service workers and 16% of schools indicated school custodian workers were also involved in the project implementation.

Results of survey also indicated that 96 % of schools had health care service professionals participated in the project. Among schools that had health care service professionals involved in the project, 12% of schools had physicians participated in the project implementation and 96% had school nurse participated in the project. In addition, 32% of schools had student guidance counselors participated in the project and 8% had dieticians involved in the project. Also, 8% of schools employed outside teachers to help implement the project.

### Community Participation

Health care professionals and related professionals were the ones involved in the HPS project in the community. Results showed 68% of the schools have health care professionals from community participated in the project. Among schools that have

health care professionals involved, 36% of them have physicians; 24% have dentist; 32% have nurse participated in the project. In addition, 12% of the schools have social service professionals and 36% of the schools have public health professionals involved. Several related groups also participated in the HPS projects. For community groups, 24% of schools have social service groups involved in the project, 28% have non-profit organizations involved in the project, 16% have community development associations involved in the project, and 8% have religious groups involved in the project.

### **Support and Resources for the HPS Project**

All schools surveyed felt they received good administrative support from the school in implementing the HPS projects. However, they also felt the support for other resources were not enough. Only 24% of the schools indicated they received enough resources to implement the project. Among 76% of the schools indicated insufficient support during project implementation, 64% indicated lack of man power, 36% indicated not enough time for project implementation, 28% indicated lack of funds to hire qualified individuals, and 20% indicated lack of budget for equipments and materials.

### **Results of On-Site Interview**

To help better understand the implementation of the HPS project, a case study was included. By using the OD model in the case study, we conducted a preliminary qualitative assessment of the administration of HPS project. The main components of the OD model used to conduct the administrative assessment included organization development and structure, implementation, challenges, and future plan.

Several schools were invited to participate in the on-site interview, but only one school agreed to be interviewed due to time constraint. The Shin-Tsen Elementary School of Chiayi County in south Taiwan was recruited and agreed for on-site interview. This school is located in a fish farming community in the country side and is a very small school with a total of 67 students from grade 1 to grade 6. There is only one class in each grade. The school has 13 faculty and staff and one of them is a school nurse. In addition, the school also has a kindergarten with 10 students. Result of the qualitative assessment is presented below.

#### ***1. Organization Development and Structure***

To begin the project, the principal called upon all school faculty and staff to join together to implement the program. The plan, communication, and implementation of the project were organized by the school nurse. With respect to organization development process, the principal first convened a health promotion meeting for the purpose of explaining the HPS project and establishing the mutual understanding and commitment from all faculty and staff. He also conducted a workshop to assist faculty and staff in understanding the concept of HPS and the organization development and structure for the HPS project. In order to bring in the community resource and encourage the commitment of students and faculty, an open campaign to pledge for the success of the HPS project was held in the school. Community residents, representatives from community organizations and health departments are also invited to pledge for the campaign. A signed pledge poster was displayed on the school lobby to remind all students and faculty that "We are the Health Promoting School".

Following the open campaign to pledge for the success of the HPS project, the school principal and nurse jointly organized school health promotion committee. The organization of the committee pretty much followed the guidelines established by the existing school health committee with some modifications and was approved in the school administrative meeting. The school health promotion committee is composed of the principal, department heads, representatives from faculty, students, parents, community, health department, and local government. However, the principal felt the committee did not function well due to lack of full time staff to coordinate the activities.

The school health promotion committee is an organization designed for the implementation of the HPS project. During its developmental process, the committee progressed from planning phase to implementation phase rather quickly. Outside health education consultants were used to provide needed suggestions and guidance during the developmental process.

#### ***2. Organization Implementation***

In the organization implementation area, the school principal indicated that the basic premises for the implementation of the HPS projects were (1) do not influence the existing curriculum, (2) do not increase teachers work load, (3) do not increase manpower budget, (4) work with community and parents to implement program, and (5) coordinate with school

calendars and related courses. The main components of the organization implementation including operation system and member participation are presented below.

#### **A. Operation System**

The health promotion committee was responsible for the implementation of the HPS project in the school and school nurse was the key person in the project. Its working procedure is shown in Figure 1. The first step was to assess the health need of the school. The nurse gathered the statistics from Education Bureau, active health intervention works already conducted by the health department, and health promotion projects established by the school. The nurse also analyzed the school health service statistics, gathered information related to characteristics of the community and the villages, and assessed school and community resources. Based on these data, the nurse recommended a list of priority projects to the health promotion committee and asked the members of the committee to vote for one project to implement. The topic of “healthy vision” was selected for this particular school.

The principal indicated that the school has already conducted some health promotion activities, but the “healthy vision” was the project the HPS wanted to emphasize. The school nurse further justified that the school is located in the rural area close to seashore and they believe the prevalence rate of near-sighted should be better than other school because of the lifestyle of the village people, but the students’ near-sighted rate was still high and reached about 30%. This rate was similar to the national average including students living in urban areas, so they felt it was a priority health issue. In addition, the “healthy vision” was an existing emphasis area of health projects by the health department. The students also have serious dental caries problem as reflected by the rate of dental caries in all 10 new students in the first grade. So, dental caries would be the next priority project for HPS program. After establishment on the priority project for the HPS, the health promotion committee was responsible for its implementation including planning strategies, timelines and budget.

#### **B. Member Participation**

There was only one time that all committee members met for the HPS project. Most of the time school nurse contacted individual member separately. The school nurse indicated that the committee did not meet regularly and only individual meeting was arranged when needed. It was easy to make arrangements for meeting between the school nurse and school teachers, but it was more difficult to make arrangements for meetings with members of the health department because of their busy schedule.

Students’ participation in the health promotion committee was somewhat limited. Students did not participate in decision making, but their recommendations regarding the HPS were included. The school principal indicated in that student representatives always have a role in the HPS project. They will report a problem or come up suggestions voluntarily when they see it.

### **3. Challenges**

One of the main challenges for implementing the HPS program was to recruit the volunteers and seek parental cooperation. The strategy used by the school was to promote the HPS ideas to students’ parents and to use the influence of community leaders to attract parents to attend the program activities. The school principal indicated that it was difficult to recruit volunteers or ask parents to participate in the HPS project and they had to use alternative wordings when recruiting volunteers and parents. For example, not using the sensitive wordings of volunteer and training in their recruitment efforts helped to attract the parents. The goal was to attract the parents to the HPS events and use the opportunities to disseminate HPS messages and seek their cooperation and support.

### **4. Future Plan**

The school nurse indicated the school does not plan to formally apply for being considered as health promoting school next year, but they will continue to incorporate the HPS program ideas into their school health activities. The school felt they have already routinely included HPS activities in their school health programs and there is no need to become formally involved in HPS again.

## Discussion & Recommendations

Development of school organization is an important step when initiating a new project. Therefore, it makes sense to begin the school health promoting project with the organization development in the school. Organization development in the school could be a useful tool for administrative assessment when implementing the HPS programs. This study used the OD basic framework to assess the implementation of HPS programs in Taiwan. In addition, the PRECEDE-PROCEED Model developed by Green<sup>31</sup> was also used as a reference for the assessment of the HPS organization, administrative structure, and resources in Taiwan. Results of the preliminary survey and interview on health promoting school programs are discussed below.

### School Organizational Environment

The specific organizational environment in school played an important role for the implementation of health promoting school. Supportive school administrative organization, policies, and external resource including budget, manpower, information and consultative guidance can influence the implementation of HPS projects. Results of the process evaluation indicated that 76% of schools were short of resources to implement HPS projects. The resource shortage in order included manpower, time, money, and other related resources. The problem of shortage in manpower and time were much greater than money and other resources. For manpower shortage, it was felt that improvement of cooperation between teachers and parents and using parents' volunteer organization may be helpful. In addition, adjustment of teachers and staff assignments may also be helpful in changing the perception of the workload when implementing the HPS projects. For example, it would be helpful to plan the HPS project in corresponding to major activities already scheduled in the school or to recruit community volunteers and students to help with the tasks.

### Vision and Leadership

If the purpose of school is education rather than health, then school teachers will view education as the main mission and use education as their criteria for success or failure. If this is the case, there will be conflicts between fulfilling their educational responsibility and implementing the health promotion school task. To help resolve this problem, it is

important to integrate the health promotion program into the school organization vision. It is also important to make teachers realized that health is the basis for student learning. If school, teachers and students understand that health will positively influence learning, then there will be no conflicts existed between traditional education goals and health promotion purposes.<sup>12</sup> It is evident that school organization vision and health promoting school mission needs to be closely coordinated to facilitate the implementation of the HPS projects. Since the school principal is the main leader in the school and has great influence on the school organization and environment, he or she can play a significant role for creating a successful environment to promote the HPS projects. Based on the survey results and interview, it was noted that all HPS plans were supported by the principals. The principal's major contribution to the HPS plan included taking a leadership role in the orientation of the HPS projects for the purpose of establishing mutual understanding and commitment from all school faculty and staff. Additionally, the principal also took the initiative to conduct a workshop for all school employees to understand the concept of health promoting school as well as the signing of pledge to commit to the successful campaign.

### Culture of School Organization

The organizational culture is often influenced by leaders and key members of the organization. To help influence the culture in the HPS project it is important to identify the leaders in the school. Results of the survey showed that the major guiding force was from the school principal and head of academic affairs office. Therefore, it is recommended that the HPS project help principal and head teacher to develop new school health promotion strategies for the purpose of encouraging and providing guidance for their teachers and staff to actively engage in detecting health problems. All these efforts are to help organization members to have better understanding of their roles in HPS and to agree with the organization culture.

### Structure of School Organization

The main emphasis of the health promoting school projects is the active participation of its members. It is important that school teachers and other related members participate in the organization development process.<sup>14</sup> It is also important that parents and community understand and agree with the school organization development in order to encourage participation, cooperation and support for the

implementation of HPS projects. In this investigation, almost two third of schools did not gain community commitment and support. As a result, we recommend that health promoting school projects should make an effort to actively involve community in establishing a partnership. For example, the strategies to secure community participation and support could be accomplished by sharing the health promoting school information with community publications, by allowing community residents to use the school resources, and by bring the school services to the community.

### Evaluation of Organizational Achievements

It is also important to establish and develop an appropriate evaluation of organizational achievements. The evaluation and follow-up mechanism could be used to help manage and improve the organization development, to understand the barriers, and to reward the accomplishments. The evaluation plan could also be used to reward individuals and used as a basis for follow-up in the future. Based on the results of this preliminary project, it is recommended that rewards could include simple public acknowledgement of individuals or schools for their achievements in HPS and provide recognition as a model HPS school. As a source of pride for the model school, other schools that interested in HPS could be invited to visit and observe the implementation of the HPS project.

Due to small sample size, particularly in the face-to-face interview, the results need to be interpreted cautiously. With the increasing number of schools that joined the HPS, it is expected majority of elementary and middle schools in Taiwan will participate in the HPS program in the near future.<sup>8</sup> A recent evaluation report confirmed that the number of schools participating in health promoting schools project increased from 400 in 2005 to 2,079 in 2007 as a result of favorable effects from the HPS project.<sup>32</sup> The report also indicated that both education and health bureau directors at the county level has taken a more active role in promoting HPS project in their county. One evidence of improvement in health behavior from the effects of implementing HPS project was the reduction of smoking rates from 6.5% to 3.5% among elementary and middle school student in Taiwan, and the knowledge and attitudes about harmful effects of smoking also improved by 1.2%.<sup>32</sup>

## Conclusion

In conclusion, this preliminary study showed that organization development model could be used to conduct administrative assessment of HPS projects in schools in Taiwan. Areas of strength for implementation of HPS project identified from the study included strong support from organization leaders such as principals and department heads and good organization development and structure. Areas for improvement included more active participation from students and better partnership and commitment from parents and community members. Also, the major resource shortages in the area of manpower, time, and financial were identified for future improvement.

## Acknowledgments

The authors thank Mr. Ming-Cheng Lee, principle of Shin-Tsen Elementary School of Chiayi County for the assistance during the on-site interview. The authors also thank all 27 schools in this study for their cooperation and assistance.

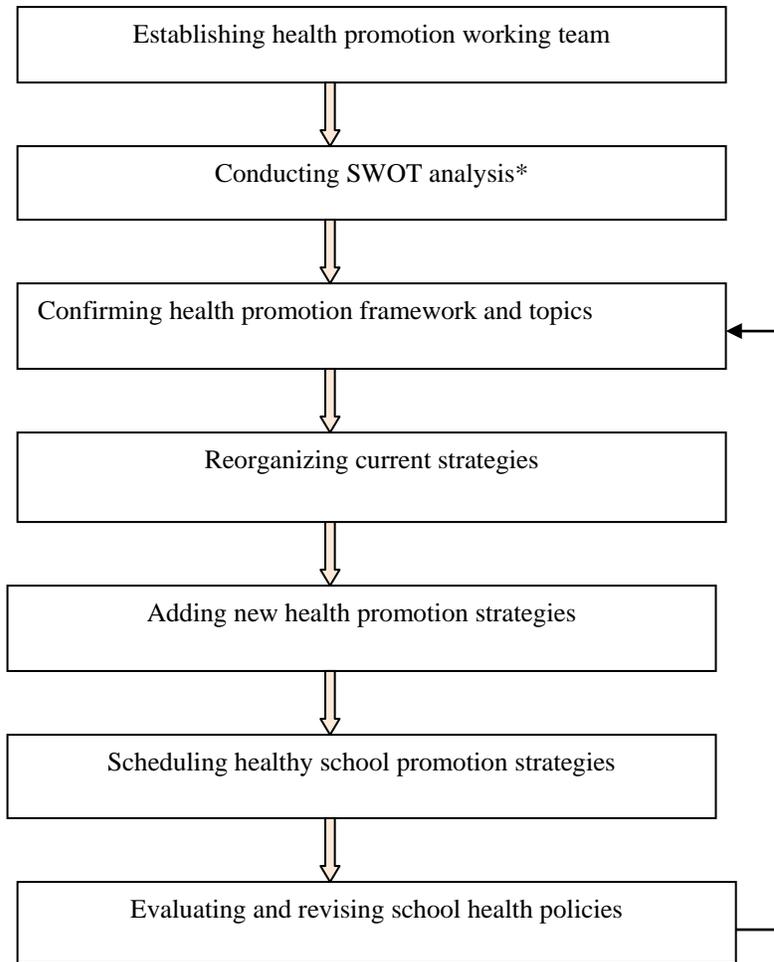
## References

1. The report of adolescents' smoking in Taiwan. Department of Health, Executive Yuan of Taiwan; 2004.
2. The statistics of population of Taiwan. Ministry of Interior, Executive Yuan of Taiwan; 2005.
3. The information of AIDS in Taiwan. Centers for Disease Control, Department of Health, Executive Yuan of Taiwan; 2005.
4. The report of nutrition & health change for 1-6 grade students in Taiwan. Department of Health, Executive Yuan of Taiwan; 2001.
5. The report of nutrition & health change for 1-6 grade students in Taiwan. Department of Health, Executive Yuan of Taiwan; 2002.

6. Yeh GL. Report of teacher education and course center alliance: health and nurse. DOE; 2007.
7. Ottawa Charter for health promotion. WHO; 1986.
8. Huang SJ. Introduction of World Health Promotion School Program. Chinese Journal of School Health. 1998; 19(4):2-6.
9. Thomas M, Benton D, Keirle K, et al. A review of the health promoting status of secondary schools in Wales and England. Health Promotion International. 1998; 13:121-129.
10. Tones K, Tilford S. Health promotion Effectiveness, efficiency and equity. 3rd ed. Cheltenham, UK: Nelson Thornes Ltd; 2001.
11. World Health Organization Regional Office for Europe. The European Network of Health Promoting Schools: Resource manual. Copenhagen, Denmark; 1990.
12. Samdal O. Health promotion integrated into school policy and practice. In B World, & O Samdal. Eds. In: The development of healthy school environments. Dissemination of experiences from the Norwegian schools in the European Network of Health Promoting Schools. Bergen, Norway: University of Bergen, Research Centre for Health Promotion; 1999.
13. Colquhoun D, Goltz K, Sheehan M. The health promoting school. Policy, Programs, and practice in Australia. Australia: Harcourt Brace & Company; 1997.
14. St LL. Reducing the barriers to the expansion of health-promoting schools by focusing on teachers. Health Education. 2000; 100:81-87.
15. Nutbeam D, Clarkson J, Phillips K, et al. The health-promoting school: Organization and policy development in Welsh secondary schools. Health Education Journal. 1987; 46:109-115.
16. Seffrin JR. The comprehensive school health curriculum: closing the gap between state of the art and state of the practice. J School Health. 1990; 60(4): 151-160.
17. The Report of Education Revolution. Education revolution consideration committee. The Executive Yuan of Taiwan; 1996.
18. Cheng SH. Research of School Organization Development progress. Taiwan Educational Resources and Research Bimonthly. 2000; 37:89-97.
19. Bastoe PO, Dahl K. The development oriented organization: Organizational theory and organizational understanding in the school, the health, and the social sector in Norwegian. Oslo Norway: Ad Notam Gyldendal; 1995.
20. Spittler P. Organization development in school settings Organization. In CT Cummings, CG Worley Eds. In: Development and Change. South-Western: Thomas; 2005.
21. Lawer E. High-involvement management. San Francisco: Jossey-Bass; 1986.
22. Green LW, Kreuter MW. Health promotion planning-an education and ecological approach. 3rd ed. Mountain view, CA: Mayfield; 1999.
23. Fink D, Stoll L. *Educational change: Easier said than done*. In D Hopkins Eds. International handbook of educational change vol. 5 pp. 297-321. London: Kluwer Academic; 1988.
24. Hou SF. The Exploration of Meanings of Organization Development. Taiwan Human Resource Development. 1999; 83:48-56.
25. Chang CC. The New Theory of Management. Taipei Taiwan: Wu-Nan Culture Enterprise; 1985.
26. Yang YN. Establishing Administrative Ethic as the Foundation of Police University. Taiwan Special edition of 60<sup>th</sup> anniversary of Central Police University; 1996.

27. Yang YN. Analysis of Police Organization. Central Police University of Taiwan. published; 1999.
28. Blair SN, Collingwood TR, Smith M, et al. Review of a health promotion program for school employees. In Zins JE, Wagner DI, Maher CA, Eds. In: Health promotion in the schools- Innovative approaches to facilitating physical and emotional well-being; 1985.
29. Hausman A, Ruzek S. Implementation of comprehensive school health education in elementary schools: focus on teacher concerns. *J School Health*. 1995; 5:81-86.
30. Babbie E. The practice of social research 9th ed. CA: Wadsworth Thomson Learning; 2004.
31. Green LW, Richard L, Potvin L. Ecological Foundations of Health Promotion. *Am J Health Promot*. 1996; 10(4):270-281.
32. Liu CH, Report of health promotion school promoting strategy and results in Taiwan (2004-2008). DOE; 2009.

Figure 1. Implementation Chart



\* Analysis of Strength, Weakness, Opportunities and Threats