Community Service-Learning and Cultivation of Humanity and Social Awareness in Medical Students

Kai-Kuen Leung, M.D., M.P.H.¹, Stanley SL Tsai, M.D., M.Sc.², Wei-Dan Wang, M.D., Ph.D.³,⁴

Medical education suffered from overemphasis on technology and utilitarianism while leaving the humanistic care of patients untouched. Community service-learning is an educational strategy of learning through experience and self-reflection. Community service-learning emphasizes the balance between service and learning activities, community participation, self-reflection and reciprocity. It aims to meet both community needs and students' learning objectives. Service-learning can help foster civic attitude, social responsibility, communication skills, and respect for diversity. Moreover, it can also enhance teamwork, active learning attitude and skills, leadership ability, emotional growth, contextual learning, and knowledge application. Most important, service-learning can nurture humanity and social awareness. The notion of service-learning is developed from a number of developmental and cognitive theories, such as “ways of knowing”, intellectual development theory, moral development theory, Kolb’s experiential learning, and theories of psychological development. Although service-learning is theoretically sound and can provide a good learning experience to students, the implementation of a service-learning program is very complicated and logistically intensive. How to assess students and evaluate the program is another challenging issue. Students’ assessment can be divided into following six categories: understanding and application of knowledge, participation in community work, realization of community issues, understanding the community, attitude change, and social citizenship. On the other hand, program evaluation involves the following five components: community participation, orientation and training, meaningful activities, self-reflection and evaluation. Future research should focus on the development of evaluation tools with methodological vigor and applicability.

Key words: service-learning, professionalism, medical humanities, social awareness, experiential learning.
( J Med Education 2010; 14: 143-153 )

¹Department of Family Medicine, National Taiwan University Hospital and National Taiwan University College of Medicine; ²Department of Medical Education, National Taiwan University Hospital; ³Department of Social Medicine, National Taiwan University College of Medicine.
Received: 8 April 2010; Accepted: 14 May 2010.
Correspondence to: Kai-Kuen Leung, Department of Family Medicine, National Taiwan University Hospital. No. 7, Chang-Shan South Rd., Taipei 100, Taiwan, R.O.C.
E-mail: kkleung@ntuh.gov.tw
INTRODUCTION

With tremendous changes in the socio-economic environment, reforms in medical education for preparing medical students capable of adaptation to new practices are of urgent need. Medical educators have realized that most medical students lack compassion, social responsibility, a humanistic attitude their profession, and a good understanding of the needs of the society. Students are more concerned about how to deal with diseases than caring of patients. In most cases, medical students are taught the curriculum in teaching hospitals and medical centers, which alienates them from the outside world and causes the medical community to be out of touch with people and the reality. As a result, medicine becomes a discipline of technology and a physician has turned into a medical technician devoid of humanity and care for the society. In the past decades, reforms in medical education were introduced and community medical education was emphasized by medical schools in the western world. However, simply moving the classroom from a hospital to community clinics or community health centers is not enough. Medical education should reinforce in medical students the awareness of primary health care, the understanding of the community’s need and how to take care of the people in the community. Community service-learning is a learning model designed to cultivate humanity, social responsibilities and civic values. In a society that emphasizes utilitarianism and fosters interpersonal alienation, service-learning may be a solution worthy of consideration.

WHAT IS COMMUNITY SERVICE-LEARNING?

In the United States, community service-learning programs mushroomed and prospered in the 60s and 70s, but thereafter declined in numbers due to financial constraint. In 1994, a survey by Campus Compact found that among 114 institutes that had amended their curriculum in the past five years, 39 percent of them had added service-learning to their curriculum. Some well-known universities, including University of Pennsylvania, University of California at Los Angeles, University of Southern California, Stanford University, Cornell University, University of Wisconsin, and University of Washington have service-learning course in their curriculum.

Not all service programs conducted in the communities can be regarded as community service-learning. Usually these courses lacked comprehensive learning goals and planning and did not provide proper feedback and evaluation to the students. Learning was not emphasized and occurred only by chance. There was no guarantee of learning outcomes; and even if there were, great variations exist among individuals. Community participation and community demands were not considered in many of the programs. Therefore, such courses could not meet the requirements of a community service-learning program.

Obviously, community service-learning can be simply defined as a process consisting and connecting of two activities: service and learning. Surprisingly, there was no consensus on what community service-learning should be. Great differences existed among service-learning programs. Some programs have more services than learning, while some programs provide more learning than services. According to Sigmon
(1996), an ideal service-learning course should strike a balance between service and learning. Learning directs service and service enhances learning.[6]

Cognitive psychology research discovered that in classroom learning, students are unable to apply theoretical knowledge to solving practical problems even though the acquired knowledge is quite similar to the new problem.[6] There are more benefits from learning through real situation, such as relatively easy to achieve team work and interpersonal communication learning, being able to use various tools rather than simply thinking, being able to put a complex case into consideration of the actual situation instead of dealing with an isolated incident, and applying specific knowledge rather than abstract theory to a related situation. In clinical practice, situations are complex and complicated and students usually encounter problems hard to imagine in the classroom setting. However, these difficulties provide students the opportunity to realize their limitations and feel the pressure and motivation to engage in learning. The objectives of community service-learning are to let students learn in a real situation, work collaboratively with others, achieve tangible goals of the community through action and feedback, and improve self-understanding and ability.

CRITICAL COMPONENTS IN A COMMUNITY SERVICE-LEARNING PROGRAM

Service-learning is an educational strategy of learning through experience. In a purposely arranged learning environment, students work with people in the community to meet community’ s needs and at the same time, to enhance students’ learning ability and personal growth. Self-reflection and reciprocity are the key components of service-learning.[2-4]. Reflection is a teaching method connecting personal experience with motivation and learning. It is also a feedback and an organization process which precipitates knowledge from the learning experiences. Reciprocity is a learning process occurring mutually between service providers and receivers. Service providers develop identification with and responsibility for the community and service receivers learn to be responsible for their own needs and solve problems. Service-learning can be a plan that meets the needs of people and communities as well as the educational needs of the students. Service-learning can be a philosophy which explores the growth and purpose of human beings. It can also be a social point of view which explores the relationship between people and the society, social structure and the operation. It is also an educational strategy which emphasizes learning from experience and self-reflection.

Moreover, community service-learning facilitates the integration of personal and interpersonal development with academic and cognitive development. The major goals of university education are to disseminate knowledge and skills and enhance personal growth, which is often neglected or lacking. Service-learning not only teaches students how to think but also learn how to feel and to understand other people’ s feeling. The ability to understand others is necessary in the process of personal development and also essential to the training of professionals who serves people.

In 1979, Sigmon proposed three principles in service-learning.[7] First, services should be decided by those who receive the service. Second, those who receive services have the ability to become a better provider or receiver. Third, the service providers are also learners who are capable of determining what they want to learn. These three
principles emphasize the reciprocal relationship of service-learning. The purposes of learning should not be changed and distorted by the service which is utilized to achieve the learning objectives.

Howard stated that from the education point of view, a good service-learning program should meet the following criteria [8]:

1. Evaluation of learning bases on what students learned rather than the kind of services provided by students;
2. Academic insistence should not be compromised;
3. Assist students to set learning goals;
4. Set criteria for choosing community service locations;
5. Use effective learning strategies to obtain the best outcomes in community learning;
6. Assist students to acquire the best community learning outcomes;
7. Reduce the gaps between community and classroom learning;
8. Re-consider the teacher’s role;
9. Tolerate uncertainties and anticipate the differences in students’ learning outcomes; and
10. Emphasize community responsibility in the service-learning curriculum.

The development of service-learning is closely related, in some part, to the development of social action in the community. In community action research, teachers, students and the community solve community problems together. Students learn about community problems and provide aids to solve them. Community service-learning cultivates students’ attitude of social citizenship, understand social needs and the responsibilities of a citizen [9]. Stanton (1990) believed that service-learning is a way to cultivate students’ social responsibility in higher education [10]. Chickering and Gamson (1987) proposed the following seven key points for university educational reform: (1) encourage contacts between teachers and students, (2) encourage cooperation among students, (3) encourage active learning, (4) give immediate feedback, (5) emphasize time management, (6) high expectations toward communication, and (7) respect different talents and learning styles [11]. The above-mentioned was also related to the implementation of community service-learning.

Many people worried that social services will affect students’ access to academic knowledge, which must be acquired from didactic lectures. However, such concern has already been brought to attention in the implementation of problem-based learning (PBL) and service-learning just takes one step further, changing the problem from a text into a problem of a real community. Service-learning focuses not only on acquisition of knowledge, but also on understanding the actual application of medical knowledge to people’s life. However, in classroom education, human issues are usually isolated from the environment, in the same way as organs from a living person, or even the constituents of cells, for learning. This has led to medical students being incapable of utilizing their knowledge in practical applications.

ADVANTAGES OF COMMUNITY SERVICE-LEARNING

According to the literature, community service-learning has many advantages, which were summarized into the following seven categories [12]:

1. Service-learning promotes personal and interpersonal growth. The effects include: to increase self-awareness and emotional growth, to be interested in helping people and be willing to help, to foster self-confidence, to enhance the ability of working with others, to strengthen the leadership ability, and to expose students to a
challenging environment in order to train their communication skills and leadership ability.

2. Service-learning can strengthen the linkages between school and community so as to establish the mutual cooperation mechanism.

3. Service-learning promotes understanding and application of knowledge. Students can get more profound understanding about the knowledge learned in schools, to realize the differences between the complicated real situation and the simplified condition learned in schools, to solve real problems by application of acquired knowledge, to learn special skills, such as communication and coordination which are less taught in schools. Exposure to community environment enables students to get familiar with community resources and to learn how to use these resources to solve problems.

4. Service-learning strengthens students’ interest, curiosity and involvement in learning.

5. Service-learning provides an opportunity of studying in a contextual situation.

6. Service-learning changes students’ viewpoints. Students can learn to see things from different angles by contacts with community people and receive instructions from community preceptors instead of from school teachers alone.

7. Service-learning can nurture humanity and social awareness.

THEORETICAL FOUNDATION OF COMMUNITY SERVICE-LEARNING

Education is to cultivate more mature and better-functioned individuals through various learning methods for achieving individual development and growth. According to Sanford (1967), development is to enhance differentiation and integration, so that the individual would become more complex and unique and would also integrate different parts to function as a whole. There are two necessary conditions for individual development: (1) the individual is prepared to grow, and (2) the environment has a challenging stimulus which disrupts the individual’s previous balance status. Community service-learning challenges individuals and at the same time provides assistance to deal with the challenges, so that learners could generate new abilities. How to give appropriate stimulus and assistance during the education process is the key to success. The following describes some developmental theories related to community service-learning.

THEORIES OF COGNITIVE DEVELOPMENT

1. “Ways of knowing” developed by Belenky et al. [12]

There are five “ways of knowing”, two of which are related to service-learning in particular. One is “separate knowing”, which is achieved by suspicion and question. It is an objective knowing where individual has no emotional connection with knowledge. The acquisition of general academic knowledge belongs to this kind of knowing. The other is “connected knowing”, which is established by belief, association, and empathy of the learner. It is a subjective knowing. Belenky believed that these two ways of knowing are both necessary in constructing knowledge. Through structured reflection, service-learning helps learners become connected with their learning experience at the cognitive and emotional levels, thus knowledge becomes more relevant to the learners.

2. Intellectual development theory proposed by Magolda [14]

Magolda described three important elements in
contextual learning: confirmation, contradictions and continuity. Confirmation supports learning, contradictions offers challenges, and continuity enables the connection of the new and the existing knowledge. A good service-learning curriculum should provide learning opportunities for all of the above.

3. Moral development theory put forward by Kohlberg [15]

Moral development is a special kind of cognitive development. According to Kohlberg’s moral development theory, moral consideration becomes gradually complicated as cognitive ability develops. Moral reasoning is the focus of moral development. Teachers should enable students to understand the reasons behind the moral judgment. Moral reasoning can be acquired through exchange of ideas and dialogue. Therefore, group discussion after service-learning experience is very crucial for the consolidation of what has been learned in the service-learning experiences. In curriculum design, appropriate guidance should match with students’ stage of moral development, so that it can be more acceptable to the students.

4. Theory of experiential learning [16]

According to Kolb’s experiential learning theory, learning or problem-solving process involves a four-stage cycle [16]. The four stages are concrete experience, observation and reflection, abstract conceptualization and active experimentation. An efficient learner must acquire the abilities of all four stages. Learners have to be open-minded, to participate in the new experience without prejudice. They must be able to observe and experience various aspects of all their experiences. Learners should be able to integrate their observations in an innovative way to form logical hypotheses. They must be able to use these hypotheses for decision-making or problem-solving. Although the four learning stages are essential in learning, people may develop their preferred learning style(s). By understanding students’ learning styles, teachers will be able to offer corresponding learning assistance according to students’ preferences.

5. Theories in psychosocial development

(1) Chickering and Reisser identified seven principles of good practice for psychosocial development of college students. The seven principles are ability development, emotional management, independent personality, mature interpersonal relationships, recognition establishment, goal-setting and personality integration [11]. Teachers should integrate the learning of the above seven principles of good practice into their service-learning curriculum.

(2) In his social learning theory in career selection, Krumboltz identified four factors that may impact career choice: genetic endowment and special abilities, environmental conditions and events, learning experiences and task approach skills [17]. Development of the latter two is particularly relevant to service-learning so that students have the opportunity to understand their interests and strengths, which facilitate their future career choices.

HOW TO DESIGN AND MANAGE A COMMUNITY SERVICE-LEARNING COURSE

To build up relationships between schools and community

Compared with traditional classroom learning, community service-learning is more complicated to design and demands more efforts and resources. The following highlights some important issues in
developing the service-learning curriculum.

1. It is helpful to have a preliminary understanding of the community by examining community information such as demographic data, geography and climate, customs and culture. This information is often available in libraries or government agencies. Furthermore, program planners should visit the community personally, to observe the community’s environmental conditions and to experience the culture. It is also necessary to interview local opinion leaders and introduce schools to the community to enhance mutual understanding.

2. The relationship between the school and community is a cooperative and mutually beneficial relationship. Both sides will benefit through working together in a cooperative manner in the service-learning curriculum. Communication is the most important tool for establishing such relationship. Long-term and friendly interaction and mutual trust can avoid unilateral, unbalanced relationship and inappropriate expectations.

3. The capability and the actual needs of the community should be considered in order to avoid the setting of over-idealized and unrealistic goals or expectations. A study result showed that community participation in the early stage of program development has a higher chance of success [19].

To develop a service-learning curriculum

For the schools, the purpose of service-learning is to provide students the opportunity to learn and to develop. For the community, the purpose is to meet current and future needs. Service-learning program should be able to meet demands on both sides. By sharing each others’ roles, teachers from the school can acquire more community service experience while instructors from the community can learn more about tutoring students. Teachers and students should participate in community activities as often as possible to gain trust from the community. Teachers and community instructors need to keep offering students new challenges in order to stimulate learning. Community instructors need to get familiar with students’ learning goal in order to provide appropriate service opportunities and monitor students’ work. The reciprocal role of community instructors/workers/representatives and school teachers in a community service-learning program expands the experiences and ability of each others, which renders both sides to learn and grow in the service-learning program.

According to the service-learning model, the service-learning process can be divided into the following five stages [19].

1. Exploration — initially, students are full of curiosity and expectations, feel excited about participating in the new experience.

2. Clarification — after initial understanding, students tries to participate in works that interest them.

3. Realization — through interaction with people in the community, students start to realize what service-learning is, identify the community works and get ready to take challenges from their works and interpersonal relationships.

4. Activation — students connect themselves to the community and become concerned about the interests of the community. Students take their community service with strong commitment and responsibility toward the community.

5. Internalization — although many students may take long-term community service into consideration, only a few of them actually do so. However, internalizing community value as a goal of one’s life is helpful for future career planning.
**Tutor development**

Tutors should be aware of and agree to the community service-learning program; be motivated, devoted, passionate and creative for the course; individualized in tutorials and skillful in facilitating self-reflection and providing constructive feedback. Teachers should be able to observe students going through the above five stages and be responsible in guiding their students to a deeper level of development.

**EVALUATION OF A COMMUNITY SERVICE-LEARNING PROGRAM**

Evaluation is a very important part of the service-learning program. Evaluation involves both the schools and the community and the target of evaluation can be divided into two parts: the program and the students.

**Program evaluation**

Honnet and Poulsen from the Johnson Foundation consulted more than 70 organizations interested in service and learning and set up an advisory group in 1989 at Wingspread to lay down the following 10 principles of good practice for combining service and learning [20]:

1. Engage people in responsible and challenging actions for the common good.
2. Provide structured opportunities for people to reflect critically on their service experience.
3. Articulate clear service and learning goals for everyone involved.
4. Allow for those with needs to define those needs.
5. Clarify the responsibilities of each person and organization involved.
6. Match service providers and service needs through a process that recognizes changing circumstances.
7. Expect genuine, active, and sustained organizational commitment.
8. Include training, supervision, monitoring, support, recognition, and evaluation to meet service and learning goals.
9. Insure flexible and appropriate time commitment for service and learning, and for the best interests of all involved.
10. Commit to program participation by and with diverse populations.

According to the Campus Outreach Opportunity League (COOL, 1993), the following are required components for the evaluation of service-learning evaluation [21]:

1. Community participation
   As the goals of service-learning are to establish a bridge between the school and the community, to promote changes in the community and to solve community problems, therefore, service-learning program should invite community participation and take community needs and opinions into account.
2. Orientation and training
   Before working in a community, students should have a proper understanding of community environment, community issues, collaborative organizations and groups in the community, and learning objectives. They also have to be properly prepared for basic community working skills.
3. Meaningful activities
   Community service works must be necessary and valuable to the community so that all the participants find them worthy of devoting their effort.
4. Self-reflection
   Reflection is the most important part of the whole learning process. It should be carried
out immediately after the students finished an activity and should include students’ response, the experience, the feelings and facts. Reflection not only eliminates prejudice and alienation but also expands the experience to broader and related issues.

5. Evaluation
To assess the learning experiences of the students and the effectiveness of community service in order to improve the service-learning program.

**Student assessment**

According to the community service-learning model, student assessment can be divided into the following six categories [2]:
1. Understanding and application of knowledge acquired
2. Participation of the community work
3. Analysis and realization of the community issues
4. Understanding and concern of the community
5. Expansion of viewpoint and attitude change
6. Establishment of social citizenship

There are some community service-learning evaluation tools available in the literature. For example, the instrument developed from the plan of Fund for the Improvement of Postsecondary Education (FIPSE) by Eyler and Giles [2]. This assessment tool is very detailed and comprehensive; however, it also makes data collection more complicated. The FIPSE instrument was revised and simplified by Leung et al. [21]. This new instrument comprises three parts: Social Attitude Scale (SAS), Program Characteristic Scale (PCS), and Ability Scale (AS). SAS evaluates students’ attitude toward community service. PCS evaluates the quality of community learning environment and the connection between service and learning. AS is a self-assessment tool for evaluating students’ acquired abilities.

In summary, community service-learning is an effective learning method which can enhance students’ self-development, humanity, and abilities to take care of people in the community. The essence of community service-learning is its emphasis on learning through experience and self-reflection. Despite its logistic demands, medical schools should establish community service-learning program in their curriculum.

**REFERENCES**

9. Ehrlich T: Civic learning: Democracy and education revisited. Educ Rec 1997; Summer-Fall:


社區服務學習與醫學生人文社會關懷能力的養成

梁繼權1、蔡詩力2、王維典3

醫學教育除了傳授醫學知識與技巧外，更重要的是醫師素養的養成。醫學教育過程中，學生都集中在教學醫院或醫學中心，特殊的學習環境，使得醫學與社區脫節，結果是醫學成了一門技術，醫師成為一位醫療技術員，缺少了醫學中對人及社會的關懷。服務學習就是培養人性關懷、社會關懷與公民情操的一種學習方式。可以培養學生公民意識、社會責任、溝通能力、對多元性的了解、團隊合作、及主動學習精神。服務學習是一種透過體驗來學習的教育方法。學生在一個經過特別安排的學習環境下，从事與人及社區需求有關之工作，以增進學生的學習能力、自我成長、反思與互惠。服務學習的目的對學校來說，是提供學生學習與發展；對社區來說是滿足目前與將來的需求，因此服務學習必須要能同時滿足兩者的需求。

服務學習的理論基礎是認知發展理論，包括Belenky等人之知覺方式理論、Baxter Magolda之智慧發展理論、Lawrence Kohlberg的道德發展理論、Kolb的經驗學習理論，及其他心理社會發展理論等。發展服務學習課程的困難在於學習環境的營造十分耗費資源，而且必須有社區的參與及人員投入；學校必須與社區建立良好的互惠關係，取得社區的信任；教師要與社區指導者有充分的溝通，社區指導者必須對學生的學習目標有足夠的了解，才能協助老師提供各種工作學習機會，並指導學生參與服務工作。

評估是服務學習課程中十分重要的部份，應由學校與社區共同參與。評估的對象可分為課程及學生兩部分。課程評估包括：社區參與、狀況介紹與訓練、有意義的活動、自我反思及學習評估五部分。學生評估包括：對知識的了解與應用、對社區工作的投入、對社區問題的分析與理解、對社區的了解與關懷、思考範圍的擴大與觀念的改變、及社會公民意識的建立。

關鍵詞：服務學習、醫師素養、醫學人文、社會關懷、體驗學習

（醫學教育2010；14：143～153）