BUILDING DIGITAL LEARNING PLACE OF THE HUMANITIES ACTION STUDY IN MEDICINE

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Abstract

This study helps to construct the medical humanities curriculum model for digital information technology. The profitable aim is to involve teachers, students and researchers in curriculum planning and explaining the humanities experience.

The study questions are:
1. To explore and look into the ways medical humanities curriculum to be conducted
2. The use of digital technology to the fullest potential of the curriculum
3. The medical humanistic contents need to be taught
4. The subjects to be taught

This action study provides teachers an opportunity to discuss the actual problems arose in teaching. The goals of the designed curriculum are to offer medical students the opportunity to participate in making hypothetical digitalized curriculum model, to practice and to ponder from the point of humanistic doctor as well as to learn medical humanistic competence. (Parsons & Brown)

Therefore, the digitalized curriculum model will be an innovative learning cyberspace. In the past, rote learning was the only way as there was no cyberspace learning to integrate into the correlation research development. Hence, this action study will help teachers to comprehend the effectiveness of development of digitalized medical humanistic courses and pedagogical design and students will be guided step-by-step in the course of cyberspace learning. (Lynöe, Mattson, 2004)
**Methods:**
The study involved is based on quantitative and quantitative methods. Qualitative method is used to evaluate the cognitive thinking of the students and the effectiveness of the development of digitalized medical humanistic learning. The latter involves the descriptive element of the data obtained.

Bolande Lonka, Josephson, 2004 pointed out that the content of the digitalized curriculum covers many aspects, from web-based learning system development to the study of decision making in humanistic relations in order to fulfill the prerequisite of field research. This helps students to establish a self-guiding digitalized learning model regarding “Humanistic & Good Doctor”. The model is more beneficial than traditional classroom learning in terms of humanistic qualities and moral values.

At the same time, the medical students will have adequate potential to support digitalized action study. The data collected under the collaboration between faculties of medical humanity and the education, will serve as a data bank for future references in Taiwanese medical humanistic education.

**Conclusion**

In the world of globalization, first hand information can be easily accessed. Hence, online learning is a convenient way to learn humanistic qualities and values. The cyberspace provides information in medical humanities, ethics, psychology, society, and culture for scholars. It also works as a space for exchanging ideas for all. All these will help to nurture future doctors with humanistic and moral values.

**Keywords: Medical Humanistic Study, Action Study, Digital Learning, Cyberspace, Curriculum and Pedagogy, Humanistic Qualities**

**INTRODUCTION**

**Background**

This project will construct the medical humanistic curriculum and digitalized data bank which serve as the basis in nurturing doctors to develop humanistic
values, strengthening medical humanities social sciences education in order to lay a foundation for medical students in lifelong humanistic doctor learning. After three years completing this project, it will largely improve the humanistic qualities of the medical education. The main research question is to discuss the conditions about the overlook of humanistic education in medical education. Therefore; the research aim is to promote humanistic doctors and humanistic competence action, elevating the standard of digitalization in medical humanistic curriculum of general education and pedagogy.

This project has developed the digitalized curriculum of medical humanistic and general education which taking “the humanistic doctor” as the ultimate goal. Besides broadening the interactive communication and learning between medical students about the knowledge in humanistic concern and definition of humanistic doctor, information in humanity and sciences and technology, (Olsson, & Ovretveit, & Kammerlind, 2003). The digitalized curriculum also provides a foundation for medical students in learning medical culture, humanities ethics and competence. It helps to solve the imbalances between “inhumanity” and “ethics” effectively, and provides a cyberspace which serve as the data collection bank about “the exploration of humanistic competence in good doctors” for Taiwan medical education. After the participation of the digitalized curriculum, medical students also may carry on the self-guidance network assistance learning about the cognitive ponder and communication in medical humanity.

This action study project will mainly provide the observation of effective pedagogy system, the correlation data collection, the literature research material and so forth. The contents are teaching material guided and involve the integration of medical humanities curriculum and the digitalized actual pedagogy. The main characteristic of this project is the mixing research methods of qualitative, quantitative, digital and multimedia. Among them are the integration videoing method in focus group study, innovative way of inquiring the completely different learning style from students and teachers; Material collection which focuses on characteristics of humanistic doctors and medical humanistic competence pedagogy, and discusses how to have interactive communication effectively in explaining and describing the
growing experience in cyberspaces.

The development of the construction of medical humanistic action study integrates the digitized material collection in the curricular design system, the definition boundary of the medical humanistic competence, analysis and discussion of the similarity and difference about the cognition and the cognition that is being influenced after explanation in different community. The process in digitalized pedagogy and research enables the effective application of the medical humanistic concept. In this digitizing teaching research process causes the medicine humanities a concept more effective application and the cooperation in reorganizing the curriculum, and increases the range and depth of the curriculum. The development and the guiding of the medical humanistic curriculum may serve as the connection point for the people outside the community in self-guiding learning. It is also promoting the development of digital learning in universities, colleges and institutes of our country, improving the qualities of general education, reducing the cost of having general education classes and increasing the range and depth of the curriculum. The development and promotion of digitalized medical humanistic curriculum model helps to establish the cooperation that interscholastic and across medical community to promote and experience digital learning of medical humanistic model

**Objectives**

- To assist the teachers of medical humanistic curriculum and future doctors in
  - Acting together to establish humanistic qualities
  - Understanding that human beings are unique individuals
  - Learning to show concerns towards people
  - Learning the psychological effectiveness of humanistic pedagogy,
  - Developing medical humanistic curriculum and pedagogy leadership in research field

**GOALS:**

- To assist teachers and learners in constructing humanistic qualities.
- To implement curricula and pedagogy which are related to medical humanity, ethics, psychology, culture.
To promote various functions of the data bank of digitalized medical humanistic curriculum.

To assist the medical humanistic curriculum to achieve pedagogy function.

To promote the studying qualities of medical students.

The Importance of Medical Humanistic Education

The medicine humanities education has given a new connotative in the pedagogical concept and it will bring great alteration in medical education. One has to learn how to be a man then only can he become a doctor. Nowadays, the core value impelled by medical education is "learn to be a man before become a doctor". Ergo, the understanding and respect of human subject is every important. The main connotation has included: the concept of humanistic education, human nature, humanity, educational ideology in Altruism, interdisciplinary educational model and innovation in pedagogy. The medical humanistic education has its unique functions if comparing with other higher education institutions. As its specialty in educational subject and closely linked to human's life, relatively has higher expectation, we can discusses from the following points:

1. The main characteristic of medical humanistic curriculum is no matter teachers, doctors and students, they must surmount from the part of the medical epistemology from to the multidisciplinary learning that is directly related to “human” (medicine, humanity, history of philosophy, psychology, social sciences and cultural research and so on).

2. The important characteristic of modern medical humanistic educational model is, no matter teachers and the students, all must have trans-space, continual participation in interactive learning. This is also the most remarkable difference in the modern medical education and the traditional education model.

3. It makes the sharing of medical humanistic pedagogy resources become a reality. From the of view of World Health Organization, the resources distribution of the medical education between international
and developing countries is unequal. (Thor, & Wittlov, et al. 2004). In recent years, WHO proposed unceasingly about the linkage of medicine education resources from various countries, for the use in global sharing. This enables the people who live in the countries that are resources deficient and undeveloped to obtain more medical health care in order to achieve knowledge sharing in human medical health.

4. Pedagogy who takes learners as the main subject, tries to provide individual learning conditions that based on different demands. The changing of the traditional medical education conduction which is focus on teachers, lectures and textbooks. This pedagogy will nurture student's independency. The medical humanistic education carries out learning guidance in humanistic, ethics concern habit or the multicultural of vision field. It is also realizing the learning which is humanistic and learner-centered and personal learning in humanistic competence and individual studies.

5. 

**Research questions**

- “What are promises that medical humanistic education should give to medical students?”
- “What is the ultimate objective of the medical humanistic curriculum?”
- “What kind of abilities that the curriculum wishes to give to medical students?”
- “How to teach the medical humanistic curriculum so that the future medical students will develop humanistic qualities and become good doctors?”
- “How far is the development of the whole Medical Humanity Education?”
- “How to utilize the action study concretely and effectively in the digitalized cyberspace?”

**The Goals of Digitalized General Education CurriculumCyberspace**

The project of digitalized medical humanistic Curriculum Cyberspace will provide teaching and learning information to the scholars, teachers, doctors,
students, patients and those who are interested in learning medical humanity. This action study project broadly defines the criterion of “humanistic doctor and medical humanistic competence”. This project will have research on the development of the curriculum and typical pedagogical model, and discuss the digitalized contents of medical humanity. How to establish a medical humanistic domain from these three main areas: Literature and history (humanities, philosophy, ethics, history and religion), Social sciences (anthropology, cultural research, psychology, Sociology), Culture and Art (culture, Vision and art); and the application and practice of medical education. The present curricula that cultivates humanistic doctor, humanistic competence and arts is providing “the whole person” learning, the situation consideration that examined thoroughly by taking life, disease, the pain, personality seriously and so on; But the this action study carries the responsibilities in helping each other in teaching, and providing multi-dimensional vision view in the medical practice. In other words, the humanistic competence is paying attention to literature and artist, helping to develop and cultivate humanistic spirit, humanitarianism, observation, analysis, empathy, empowerment and reflection and so forth. The humanistic competence has also attached importance to humanitarianism and skills in medical health care. (Fors., & Bergin, 2002). The social sciences helps us to understand how does bioscience and medicine occur in the cultural and social environment, and having an exploration between culture, disease and medicine in the ways on how to get along with each other harmoniously.

The most important research part in this project is to explore three big areas: Material collection on effective pedagogical style, the qualities on digitalization, the achievement in teaching material and learning space, and also can hold a literature creation which is related to medicine, artistic annotation, the production about the interview between medical staff and patients on their experiences, medical education and practice motion. Bruhn, JG., Furhoff, AK. & Lynöe, N.: (2001). All digitalized content annotation or text will be discussed and edited by teacher/researcher and any teachers and learners who participate in this research.; members in this action study will have their reflection from experience to human nature, and finally ambitious to become a humanistic doctor.
The medicine humanistic data bank contains the execution multimedia, message board, and discussion area, newsletter of journal, electronic book and so forth. The plan mentioned above will offer participation for those who wish to learn in a deep going way or research participants who interested in interactive discussion about medical humanistic curriculum. All the documents that contain the news related to medical humanistic action will be collected and made into teaching methods, electronic book, compact disc or DVD.

This research intends to hand in an application to the National Sciences Council. In the hope that will complete the construction of the theory and methodology assessment after three years time, and undergo cooperation with the enterprise to perform high quality digitalized curriculum of book reservation and publication of electronic books.

The Integration of Network Teaching and the Data Bank Construction

Basically, the integration of network teaching and the data bank construction will help in realizing the integration of the medical humanistic competence in the “learning space of alternately circulatory network system”. (Brüne, 2002). The network teaching and learning may integrate writing, pictures, video, music, and even the animation and other vanguard technologies in multimedia teaching software into the cyberspace. It again classifies, compares the realistic environment, its effectiveness is incomparable with any others single model. As a result, it is beneficial for teacher and learners in the gaining, growing and construction of knowledge. (Gilbert, P 2001). Teachers and students may have flexible and non face to face communication regardless synchronized or the non-synchronized in online lectures, online communication and counseling, Q&A, E-mail and so on message board discussion through the integration of the technological skills. (Olsson, Elg, & Molfenter, 2003) It enables curriculum teaching to carry on effectively; the trans-space learners may express their opinions at any time during the online lecture and will not cause any effect to the others. At the same time, the learners can have on the demand and real-time broadcast in the cyberspace, elasticity accepts the interdisciplinary study to achieve the goal in online learning. (Klareskog, Nordmark, 2001).
The Reasons of Establishing The Medical & Humanistic Cyberspace

The expectations of the society of globalization: humanistic doctors

1. Learner’s Demand:

The WHO (World Health Organization) had proposed that the characteristic humanistic doctors in the 21st century which are nurtured by the quality-guaranteed medical education must posses three basic capabilities

- The capabilities in professional knowledge and reading.
- Moral character and scientific manner
- Human communication skills

2. The Demand of Medical Education:

Future doctors are shaped when grown in the humanistic environment, and how far is the competitiveness of the future medical education expected by society? (Recourses from: Parent committee conference)

The medical & humanistic cyberspace integrates the interactive discussions and the outdoor practice research and teaching model in performing plans.

Purpose of Carrying Out

The pedagogy model of Cyberspace is developed based on the action study plan in medical humanistic curriculum.

GOALS:

- To develop the concept which treats patients as individuals and taking lives seriously by putting in the pedagogy information, rearranging curriculum model and combining the medical humanistic vision.
- Creating a humanistic cyberspace
- Combining the community service and learning.
The Definition of Digitalized Function of Cyberspace:

1. Developing the ability to search for the medical humanistic information and knowledge by using the Internet. The function is cooperation between the teachers and students in constructing the digitalized medical and humanistic cyberspace in action study. The plethora information in data bank of action study and the opening of science & technology interactive communication model make the curriculum participants have more different views and angles about things

2. Developing the ability to collect, process and analyze the material in action study. The digitalized usage of the science and technology material enables the learners to classify, reorganize and analyze the data more effectively. It helps and promotes the medical students to construct the knowledge.

3. Using webpage guidance to assist the curriculum content in expressing the medical humanistic concept and knowledge. The medical students may express the medical humanities thought through languages, words, animation, video recording and various multimedia effects

Expected Target

- Enriching the contents of medical and humanistic cyberspace and action study experience, expanding medical students’ world view.

- Establishing the native feelings of medical students and promoting it internationally.

- Using the medical humanity concepts which are globalize and quality guaranteed, science and technology pedagogy in out door teaching, participation in community service, promoting the international academic exchanges.

- Assisting the medial students to develop the ability to collect the medical humanistic curriculum and teaching materials, the ability to handle the
information.

Please refer to the website for detailed content:
http://Ehumed.kmu.edu.tw

The Medical Humanistic Curriculum Designation

WHO pointed out that medicine education has a common goal, that is: Doctors nowadays are being too specializes in their specialty but lack of humanities competence. This norm is happening because high school educational system do not emphasize in cultivating humanistic values in students. Many students are accepted directly into the medical program in the universities. They are trained to concentrates in the specialized knowledge and the technical skills, producing what is known to be ‘medical robots’. The traditional education ignores the importance of personal characters and the manners. (Fisher, &Wells. 2005) Nevertheless, education is playing a very important role in nurturing future doctors with humanities, who care for patients.

In recent years, there has been emerging higher education reformation. TEMC proposed that one has to learn how to be a man then only can he become a doctor. Hence, there is an urge for the reformation of medical education, by integrating humanities and designing a curriculum that is up to the par. The teaching of humanities has the following three characteristics:
- Emphasize on cultivating doctors with high standard of professionalism and humanities. Also to expect doctors to give concern of the society and be sensitive to the needs of the people.
- Incline to become a good and ‘whole’ doctor to be the fundamental of medical education then only comes to learn about the medical knowledge and skills. The basis of medicine has to be strong or else the medical skills and specialized knowledge would not be facilitated to the fullest.
- Emphasize on human rights, and helping to cure the diseases to be the foundation. The design of medical education nowadays is developing in a
way of combining theoretical knowledge and clinical skills.

The medical curriculum basically emphasize on the humanities and basic science subjects in the first two years of the curriculum. During the third and fourth year, the foundation of medical knowledge and clinical medicine are delivered to students. Emphasis will be on clinical medicine in the last three years of education. But, there are some curriculum which teaches the foundation of medicine and the clinical medicine together which can facilitate the fusion of both inter-related knowledge. (Lynöe· Sandlund· Jacobsson· Jin· Norberg· 2004).

Anatomy and surgery are never being mentioned to be connected with human dignity. (Nilstun· Lofmark, 2003) There are very few doctors who concurrently have the fundamental knowledge of medicine and humanities, and science that is multidisciplinary background. Teachers need to have a multidisciplinary background and training. Otherwise, they can pose great influence on the effectiveness of humanities teaching. The integration of methods of teaching can probably solve the problems aroused due the difference in theoretical and practical part of learning.

Lo (1992) pointed out the medical education is all about cultivating humanistic. Therefore, one must also take into account of his personal characteristics and the manners and interpersonal skills. The medical faculty has introduced the humanities and ethics in medical curriculum in recent year to enhance and broaden the visions of medical students. The medicine humanities course consists of three main categories. They are “Medicine, Humanities and Ethics”, “Medical Research and Multiculturalism”, “Medicine, Psychology and Society” and so on.

The curriculum aims to discuss on various controversial topics, allowing students to express their opinions. According to Stolt (2004) the modern learning culture varies to the old ones. Many people thought that discussions help to in these classrooms helps in learning. Also, some thought that one can only learn the most when he enters the year of internship when there are role models to follow which is teaching through examples, has a much deeper impact on students. Although some may have contrary views, it all depends on personal integrity, personality. (Stolt, 2004)
Introduction of Medical & Humanistic Cyberspace

Website: http://ehumed.kmu.edu.tw/

The Idea Of Designing Medical & Humanistic Cyberspace Webpage

Concept Of The Title

The relationship between” Medicine” and “Humanities” has always been the focal point for discussion. It is worth to have a think on whether it is should be the “medical humanities” or the “humanistic medicine”. The word “Ren Xin” is from the association of these two terms mean to have benevolence in the medical treatment. It is also the harmonics of “human nature”. Therefore, it is used as the title for a series of medical humanistic curriculum. It hopes to educate, train the medical students to become the good doctors that are always thinking from the side of humanistic concern.
**Logo Designation**

The apricot leaves which are made into heart shape, held by both hands. This combination represents the caduceus of Greek medicine god, Asclepius, which is the symbol of a doctor. The Egyptian regards the snake for the authority. The Greek regards it as incarnation of the ability to predict future and wisdom. Doctors posses the authority and ability to help patients, they are highly respected. Therefore, they should keep reminding themselves to listen to patients’ voice, not only playing their roles in medical treatment.

**Color Usage For The Webpage:**

The green has functions in calming; balancing the tense in blood-red operating rooms. Green color has its function and representation in medical field. With the addition of the warm tone combination of yellow and orange, it creates the space with warm feelings. At the same time, it constituted the concept which the medicine and the humanities concern originally should complement one another.
**Home Introduction**

Solicitude is the important part of humanistic medical treatment. The hand gesture between doctor and patient symbolize the conveying of concern, the readiness of doctors to give a hand, guidance and support to patients. The pressed keys on the upper part of the homepage consist of the several medical images and state of historical evolution of medicine. The contents cover the magnetic therapy of Scythian people before century and Florence Nightingale, the lady with the lamp. Nowadays, Kaohsiung Medical University is advocating humanistic medical treatment. Every discovery of treatment methods, medical progress and the efforts of medical doctors contributes to the development of the medicine.

**Introduction of web page picture selection**

The webpage common menu buttons are using the medicine images which have meanings to link with the webpage contents.

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**Home**- Scythians people and magnetic therapy technique, the drawing on Greek terrine in Petersburg castle garden hut. From: (German
News - X ray from hand. It is taken by Otto Heinrich Wiener (1862 -1927), A Giessen physicist in the end of 19 century. The born of the radioactive rays was discovered accidentally by physics Professor Roentgen when performing experiment. At that time he used cathode ray in his experiment, tried to observe certain fluorescence phenomenon. Soon later after this significant discovery, Roentgen successfully took the picture for the “skeleton shadow”

Class- < Vivisector >: The God of Moral demonstrated to the professor in the picture, at the end of the weigh- beam is a cerebrum which was decorated with the Grecian laurel and another end is the burning heart. It is to remind him suppose to place empathy towards people prior to knowledge. P. Krey’s wood- graving drawing is according to the Gabriel Max’s drawing. From: (Daheim), Leipzig, in1885.

Pedagogy-Sauer Bruch in Surgery. H.O.Hoyer drew it according to the famous printed leaflet, 1922. From: (German Red Cross), published by German Luss, in 1981 eighth issue.
**Action studies** – Dissection study of shoulder and arm part muscle, drawn by Leonardo da Vinci. It is preserved in the England King Library of Windsor Castle. This drawing is copied from Leonardo da Vinci’s drawing in year 1510. From: Bernt Karger-Decker, (Grasps the scalpel. head wears the ophthalmoscope), Leipzig, in 1957.

**Service** – During Crimea war period (1853 -1856), Ms. Florence Nightingale and her assistant looked after the injured in the Scuturi England Field Hospital. From: (Medical officer), Berlin, in January, 1984. Nightingale provided goods supply, improved health conditions, provided surgery assistance and so on through the organization. She was not only largely reduced the burdens and work loads of the surgeons, but also gain the respect and gratitude from the patients. She was called as “the admirable angel” or “the lady with the lamp”. The “Notes on Nursing” and “Notes in Hospital” was recorded based on her own experiences, observations and views. These established a basis for modern medical care theory.

**E-Resource** - Jean-Paul Marat, a French revolutionist, political commentator and doctor. A dedication to Marat with
his portrait “To Marat, The Friend of The People”. This picture was drawn according to the Jacques-Louis David’s copper plate drawing. Marat had always fought for human rights revolution. He was the specialist in chest cavity and eye disease. At that time he once opposed to use the mercurial therapy in treating eye disease and the using of chest expander. He had many contributions to medicine and human rights. He was assassinated due to his devotee to the revolution.

Sitemap – There is a human heart that needed to be sutured in the surgeon’s hand. Photocopy edition. From: Lejars, (Dringliche Operationen), 1994. In 1896, a surgeon named Ludwig Rehn was the pioneer in performing human heart suture surgery; he succeeded to retrieves the patient. Hereafter, Human heart is no longer be the forbidden..

**Literature Review:**

In the past, the clinical and scientific educations in medicine field mostly are discipline centered, the teaching subject are more on specialized courses. The insufficient linkage of each curriculum causing the content and the practical application come apart. The medical students are unable to have application in the actual situation. It makes them do not have the sense of participation .As a result; there is a low efficiency in clerkship learning. In addition to the standardized teaching material presentation, learner’s thorough understanding and effective stimulation is limited in memorized learning. Therefore, it is a must to discuss and explore on how to apply it to individual by giving full scope to the intensifying of learning action. Besides that, improvement and reconstruction of medical education will be undergone in traditional education method or medical humanistic science .Digital science and technology will be the important applied sciences in changing the pathway.
In recent years, the mushrooming of Internet has a profound influence on the quality of higher education. This trend has an impact in medical educational world.. The Internet technology has brought a new revolution in medicine and the clinical teaching. The use of multimedia network in interactive teaching and assisted learning has transformed the traditional pedagogical method of “students learn on what being taught” between traditional doctors and the apprentices to the teaching method that takes students as the main consideration on “How does the student learn something better or the newer” .In other words, it is the transformation of the teacher-centered pedagogy to the initiative and independent learning model in students .This educational reform also changed the medical education which has traditional learning environment in classroom teaching, the coordination of class and grade system and also the unidirectional way of conducting the knowledge to the students. Teachers has changed their positions from knowledge provider to the auxiliary role in providing the knowledge based the characteristic of the students .The students also change their learning attitude from passive knowledge acceptors to the learners with initiative and positive manner in independent study.

**Using Technology**

Curriculum has been defined as “the subject that are studied or prescribed for study in school” (Allen, 1990).

Technology affects the curriculum initially by accelerating the need for basic technological literacy, and by creating new areas of professional technical specialization related to technology itself. (James Farmer, 1997)

To become effective knowledge workers, students will need to develop information literacy that is the capacity to be fluent users of the information tools made available through new technologies. Educators, in turn, are called upon to provide knowledge and skills appropriate for information-rich and technologically dependent global society. (James Farmer,1997)

As technology expands information access and use, the way we think about, obtain, organize, and use knowledge is changing as well. (James Farmer, 1997)Thus we can anticipate corresponding changes in the way curriculum is
structured and presented, equivalent in scope to the creation of new fields of study and new institutions. (James Farmer, 1997) The creation of hybrid interdisciplinary specializations, for instance, suggests that boundaries in formally defined curricula are shifting, possibly towards more problem-centered, interdisciplinary, or competence based structures. (James Farmer, 1997)

New Curricular Content
Locating technology in the undergraduate general education curriculum has been problematic, in large part because it is not well understood. (Ferren, 1993). The curriculum in professional programs more readily accommodates technological advancement required to do the work of the profession, to the extent that resources and faculty expertise permitted. (James Farmer, 1997).

Field-Specific Technology
Advances in technology continually provide specialized discipline-specific and professional tools that must be incorporated into the curriculum as well. (James Farmer, 1997) Instead of searching through card catalogues at their library, researcher use the global electronic network referred to as the Internet to access library catalogues around the world and to obtain information that is as current and complete as it is at the source. (James Farmer, 1997)

Course and Curriculum Development
Managing Information Resources
New information technologies have already begun to help faculty manage the tremendous growth and restructuring of disciplines evident throughout the curriculum and highlighted in this volume. (James Farmer, 1997) Such rapid, extensive and flexible access to resources means the curriculum can be enriched or changed in ways that would have been difficult at best in the traditional classroom setting. (James Farmer, 1997)

Methodology
This project is to construct digitalized medical humanities curriculum in pedagogy. The network technology nowadays is an integral system. Therefore, the entire medical humanistic curriculum project will be conducted in the methods that across the discipline and professional domain. The dean
of the medical faculty in Kaohsiung Medical University, Professor Lai C.S. will responsible for the entire project while the medical humanistic teachers from the faculty of medicine will provide assistance in the operation of the project.

This project will be carried on by five level leadership teams which consist of the department head of the general education, the department head of Faculty of Medicine and Medicine for Post-Baccalaureate, the audio-visual learning center and so forth. This research team will conduct researches on interdisciplinary medical humanistic education and digitalized curriculum under the cooperation from the committee of general education and medical humanistic curriculum integration. The research team will be having the curricular integration and pedagogical interaction between schools and medical colleges. Besides that, it also acts in close conjunction with medical community and other colleges.

Collection of Research materials are from interscholastic workshop and focused group. They will be having discussions, data collections and sharing of digital pedagogical material through teleconference. The main theme is based on medical humanity. Each curriculum narration, small group discussion and workshops are face-to-face communication and presented through teleconference. This medicine humanistic competence action study has gain the same level of participation from teachers, teaching assistants, students, populace, patients and so on. This study will get the supports from different scholar expert and populace, and regard it is responsibility distinct and has an effective interaction. (Ovretveit, 2002).

The reasons of establishing action study in medical humanistic pedagogy are the ineffectiveness of guiding principle in medical humanistic competence and there is no teaching resources up till now that can fully master or take control over medical humanistic teaching network and information system. The target set by this research is to bring the on medical humanistic curriculum and pedagogy research in advance 3 to 5 years while the long- term based research on medical humanistic material and qualities will be focus on between 5 to 10 years in the future.
Research Directions: Four Main Points

1. Developing digitalized medical humanistic curriculum, having pretest (for those who have not taken medical humanistic courses) of the humanistic competence preference examinations, assessing of medical humanistic curriculum demand, assessing of network digital learning, analyzing materials about the definition and differences of humanistic competence which are given by students from Faculty of Medicine and Medicine for Post-Baccalaureate, academic teachers, clinical teachers and community, exploring the effectiveness of digital learning in medical humanistic pedagogical skills. In the past ten years, the medical humanistic social scientists had revealed the mystery of humanistic competence preference, establishing the multi-dimensional knowledge and the high quality and three-dimensional drawings of molecular structures. The humanistic doctor also cultivates scientist thus also can surmount alone in the domains of action study. Humanity, organs and tissue, understands the interaction relations in each other.

2. Studying and understanding the teaching and learning in the complex structures of medical humanistic competence; the humanities cognition from different communities, post assumption of the cognitive difference and interactive relations with various factors, causing factors and forecast analysis of the medical humanistic definition or text discussion, data collection regardless with voice or voiceless will be processed through the multimedia images in computer technology, using the statistical formula to calculate and construct the typical model, which is used for various analyzing and combination of the humanistic competence of good doctors. It makes people have more understanding on humanistic education of medical students.

3. Developing the new technology to analyze the humanistic doctor’s humanistic competence and communication ability, ethics ability, Cultural ability and information acquired from doctor career development organization. It hopes that doctors and medical scientists will have strong and quality foundations in the process of cultivating medical professional and humanistic skills. Discussing and exploring the phenomenon, the discovered case;
persons, matters, the cases that are correlated with the medical humanistic situation in medical field, or something that is correlated with the pedagogy during the curricular activities. It helps to strengthen the effect in humanistic pedagogy. The usage of humanistic medical tool in processing mass data makes the structures confirmation of the medical humanistic, epistemology and methodology more effectively. In a conclusion, the new technology must be able to solve the problems of the medical humanistic education in humanistic medical service, humanistic concern and the cultivation of humanistic competence in doctors.

4. The new medical humanistic technology data bank must not only able to explain and analysis the complex medical humanistic competence provides digitalized system but also with the ability to construct medical humanistic education. The headquarters of this research project will be located at the united office in the college of medicine. This campus which pays equal attention to medical humanistic pedagogy and the research, might become the most important digitalized medical humanistic education cyberspace in entire Taiwan.

Results

Data Analysis

A survey was being conducted in Kaohsiung Medical University to assess the preference of medical humanistic courses amongst 83 medical students. They were given questionnaire and asked to select the medical humanistic courses that they preferred from 3 areas which are Literature, History and Philosophy, Psychology and Society, Culture and Arts. The ranking of the courses is from not very important, not important, common, important to very important. The valid percentage was obtained by adding the valid percentage of “important” and “very important” of a course. In Literature, History and Philosophy area, fifteen different courses were rated by medical students. The five most important courses with high ranking were selected from this area. Bioethics has the
highest ranking with 72.5% while the second highest is Life and Death Studies with 67.7%. Medical Ethics occupies the third places with 61.1%, and the fourth is Body Phenomenology. The fifth course is Medical Ethics Topical Research which stands at 55.8%. Taiwan Medical Literature Creation has the lowest valid percentage in this area with 22.6%. In the Psychology and Society Category, ten courses were rated. Medical Studies and Law is selected as the most preferred courses to have with 77.1% and the second highest is Career Pathways for Medical Students stands at 72.6%. The other three courses that are considered important are Humanistic Psychology, 71.7%; Multicultural viewpoints: Counseling and Helping, 72.0% and Behavioral Science, 69.3%. Gender, Women and Medicine has the lowest valid percentage in this area which stands at 55.2%. There are ten courses to be rated in Culture and Arts area. Artistic Therapy has the highest valid percentage in this category, which is 58.1%. The second highest is Individual Studies with 56.5%. Plastic surgery cosmetology: Beauty and Beast; 54.8% and Community Medical Treatment Culture, 53.9% occupy third and fourth place in this category while Cultural Research in Medicine: Qualitative Research has 47.7%. Sexual Culture: Viagra and man culture has the lowest with 28.1%.

A. LITERATURE, HISTORY AND PHILOSOPHY AREA

<table>
<thead>
<tr>
<th>NO.</th>
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<tbody>
<tr>
<td>1.</td>
<td>Medical Humanistic Concept</td>
<td>53.70</td>
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<td>2.</td>
<td>Medical Ethics</td>
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<td>3.</td>
<td>Medical Ethics Topical Research</td>
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<td>4.</td>
<td>Taiwan Medical History</td>
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<td>5.</td>
<td>Body Phenomenology</td>
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<tr>
<td>No.</td>
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<td>6.</td>
<td>Philosophy and Life</td>
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<td>7.</td>
<td>Ethics and Artistry</td>
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<td>8.</td>
<td>Bioethics</td>
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<td>9.</td>
<td>Oral History of Community</td>
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<td>10.</td>
<td>Taiwan Medical Literature Creation</td>
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<td>11.</td>
<td>Language and Linguistic</td>
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<td>12.</td>
<td>Life and Death Studies</td>
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<td>13.</td>
<td>Religion and Life</td>
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<td>14.</td>
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**B. PSYCHOLOGY AND SOCIETY AREA**

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<td>1.</td>
<td>Career Pathways for Medical Students</td>
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<td>2.</td>
<td>Humanistic Psychology</td>
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<td>3.</td>
<td>Medical Ethnics and Society</td>
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<td>Multicultural viewpoint: Counseling and Helping Skills</td>
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<td>5.</td>
<td>Medicine and Law</td>
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<td>6.</td>
<td>Human Development Psychology</td>
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<td>7.</td>
<td>Behavioral Science</td>
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<td>Gender, Women and Medicine</td>
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<td>Medical Health Policy</td>
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<td>Community Service</td>
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**C. CULTURE AND ARTS AREA**

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<th>Subjects</th>
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<tr>
<td>1.</td>
<td>Cultural Research in Medicine : Qualitative Research</td>
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<td>2.</td>
<td>Community Medical Treatment Culture</td>
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<td>3.</td>
<td>Individual Studies</td>
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<td>4.</td>
<td>Sexual Culture: Viagra and man culture</td>
<td>28.10</td>
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<td>5.</td>
<td>Hakka Culture</td>
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<td>6.</td>
<td>Artistic Therapy</td>
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<td>7.</td>
<td>Arts of Movie in Medicine</td>
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<td>8.</td>
<td>Plastic surgery cosmetology:</td>
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<td>Beauty and Beast</td>
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<td>Music and Arts</td>
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<tr>
<td>Dance For Your Life: Cloud Gate Dance Theatre Of Taiwan, Tai Ji</td>
<td>40.00</td>
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Conclusions

The digitalized learning in medical humanistic is a must for medical students to learn more about the attitudes, values must have in humanistic doctor, compare to traditional way of conducting lectures. The digitalized medical humanistic program provides a center of information for medical students, teachers to look for the resources, articles, journal that about medical ethics and humanistic. They can also exchange information and opinions with others medical students from overseas on how to promote medical humanistic curriculum, not limiting their own world views and know more about the medical school in overseas on how to promote and emphasis on medical humanistic aspect. With such useful information, medical students can equip themselves earlier and implement good moral values besides having medical knowledge and skills.

Acknowledgement

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References

Backer, P.A., and Yabu, J.K. “Hypermedia as an Instructional Resource.” In D.F 
Halpern and Associates, Changing College Classrooms: New Teaching and 
Learning Strategies for an Increasingly Complex World. San Francisco: 
Blurton, C. “Using the Internet for Teaching, Learning, and Research.” In 
D.F.Halpern and Associates, Changing College Classrooms: New Teaching and 
Learning Strategies for an Increasingly Complex World. San Francisco:
Kasten, W. C., and Clark, B.L. The Multi-Age Classroom: A family of Learners.
Katonah, N.Y.: Owen Publications, 1993

Websites:

http://www.sinica.edu.tw/~htliedu/data/92.9.epaper/sts92.9.htm

http://www.ncu.edu.tw/~phi/NRAE/newsletter/no27/01.htm
http://readopac1.ncl.edu.tw/ncl3/detail_result.jsp