

Executive Summary

An assembly of medical educators and regulators researched the benefits and limits of distance learning, and prepared a background document with the assistance of schools using distance learning.

On March 17th, 2007 a meeting was held in New York City. A severe snowstorm caused a major disruption in transportation which reduced the number of participants at the meeting. However, some general conclusions can be made;

_____ Distance learning has developed into a useful tool to teach medical students.

_____ Some component parts of medical education requires skills and hands on experience that cannot be provided by distance learning.

_____ Patient contact is irreplaceable. But distance learning may help to a limited degree as a supplement.

_____ A blend of distance learning along with the traditional methods can be an enhancement.

Further research and debate with full participation is necessary to refine and detail conclusions. The next meeting will be in Chicago on August 13th, 2007.

Index

Executive Summary	I
Planned agenda	3
Participants scheduled to meet	6
Meeting Transcript	10
Backgrounder 1- Overview	38



Planned Meeting - March 17, 2007

Agenda

The Advisory Council will sponsor a discussion and debate on the Potentials and Limitations of Distance Learning beginning at 9:00 a.m. on March 17, 2007 at the Millennium UN Plaza Hotel, One UN Plaza, New York City. The chair of this discussion will be Richard Gumpert, PhD, Associate Dean Academic Affairs, University of Illinois, Urbana in his capacity as IAOMC's Advisory Council Executive Committee Chair. Council members, medical educators, regulators and medical schools using distance learning will help to define its potentials and limitations. The session will be taped and transcribed. The result may lead to recommending guidelines or even new global accrediting standards. Overview research, mostly in the form of relevant web links, will be provided to all speakers, schools and attendees. All medical regulators and educators are invited to submit written material they judge appropriate. The deadline for such submissions and registering attendance is March 7th, 2007. (Send to; bfergusonjd@earthlink.net) These written submissions will enable those speaking and others to opine at length if they wish and will provide supporting material and citations.

Representatives of all schools offering extensive physician programs of distance learning have been sent an invitation to address the participants and share their experience. Invited were; R. J. Simms, V.P. University of Health Sciences, St. Kitts; Taffy Gould, Chairperson, e-Medical Education; and Dr. Omitowaju, President University of Health Sciences, Antigua, Dallas Gibson, Director, Icarus College and Professor Frank Stitt, Vice Chancellor, Vanuatu College of Medicine. As space is limited the meeting is open to all who advise of their attendance by March 7th. Surindar Cheena, PhD, Vice Chancellor Oceania University

of Medicine, Samoa and Christopher Dudley, e-Medical Education, Miami will explain their distance learning program and respond to any questions. (OUM has reported that approximately 45% of its curriculum is taught using distance learning, the remainder is taught face to face. “I believe Sloan and others would call it a ‘blended’ curriculum”.)

Distance

Learning

9 a.m. Meeting opens.

1. James R. Hilliard, MD, Associate Dean, Clinical Affairs, University of Cincinnati School of Medicine, Introduction and overview

“Distance Learning as I See It.”

- a. Henry Haddad, MD, former Pres. of the Quebec and Canadian Medical Associations, Professor Emeritus, University of Sherbrooke
- b. Richard Fantozzi, MD, Chair, California Medical Licensing Board
- c. Thomas Monahan, Executive Secretary, Medical Licensing Board of New York
- d. Eugene Kucharz, MD, PhD, Professor, University of Silesia.
- e. Dorian Shillingford, MD, President, Dominica Medical Board
- f. Nivritti Patil, MBE, MBBS, MS, FRCS, Ed., Li Ka Shing Faculty of Medicine, Asst. Dean, Univ. Hong Kong. (written submission)

After the presentations, the speakers will join the Executive Committee to sit as a joint panel to hear and to discuss the issue with medical school representatives who are currently teaching medicine principally by distance learning.

“How a distance learning program in medical education works”,

- g. Surindar Cheena, PhD, Vice Chancellor Oceania University of Medicine, Samoa
- h. Christopher Dudley, e-Medical Education, Miami.

- i. Frank Sitt, MBBS, MBBS, FRACP of Vanuatu College of Medicine reported he was the former Vice Chancellor/founder of both the University of Health Sciences, St. Kitts and Oceania University, Apia, Samoa. He has forwarded two documents for consideration of the Advisory Council.

Following the panel discussion, relevant questions from attendees will be entertained.

12 p.m. A catered lunch will be served in the Dag Hammarskjold room.

1:30 P.M . Return to complete Distance Learning discussion.

Ethics

Then Dr. James Appleyard, Past President World Medical Association will review current progress for IAOMC on a global dedication to medical ethics.

Certification

Implementing an IAOMC certification track, Bernard Ferguson, JD, Chair

IAOMC

Annual

Meeting

At 3:30 P.M. The IAOMC Trustees annual meeting.

- A. Award United States Secretary of Education Margaret Spellings, or her representative, our newly instituted “Enhancing Hippocrates” award. Hippocrates is often referred as the “father of medicine”. He formed medical ideals that continue to this day. Secretary Spellings initiated a public dialogue on openness and transparency in accreditation review and has performed an enormous service for the future of medical education/ practice. We wish to formally and publicly acknowledge and recognize her contributions.
- B. Seating Advisory Council non voting members - report, past and future activities.
- C. Financial report.
- D. President’s report. NGO application, Trustees, Officers.
- E. New business - Students



Participants Scheduled to be at Advisory Council Meeting March 17, 2007

Participants include government regulators, medical school faculty and administrators. This is an academic forum permitting the free flow of ideas. The opinion of a medical school faculty member may not be the opinion of the schools where they teach or administer. Medical schools have faculty structures and/or academic forums where the schools academic policies are determined. Similarly, an opinion expressed here by a government regulator is an individual opinion. Only government boards or agencies may determine a government's position. Also, opinions expressed by faculty or administrators of founding medical schools are their personal opinions. IAOMC has not formed any opinion on the Potential and Limitations of distance Learning.

Richard Gumport, PhD is the Chair of the Advisory Council Medical School Section and the Council's Executive Committee. He is also an approved site visitor. He is Associate Dean for Academic Affairs and Professor of Biochemistry at the University of Illinois School of Medicine, Urbana Champaign Campus. He will preside during the issue of the limits and promise of distance learning. He resides in Illinois.

Speakers

James R. Hillard, MD is an approved site visitor and a member of the Medical School Section of the Advisory Council. He is Associate Dean of Clinical Affairs at the University of Cincinnati School of Medicine. He will introduce the subject of Distance Learning in Medical Education and provide an overview. He resides in Ohio.

Henry Haddad, MD is an approved site visitor, a Chair of Advisory Council Section 3 and a member of both the Council's Executive Committee and Ethics Committee. He is a Past President of the Quebec Medical Association and the Canadian Medical Association and Professor Emeritus of the University Of Sherbrooke School Of Medicine. He resides in Sherbrooke, Canada.

Richard Fantozzi, MD has been a member of the California Medical Board for many years. He is currently serving as Chair of its Licensing Division. He resides in San Diego, California.

Thomas Monahan is the Executive Secretary of the New York State Board for Medicine and widely recognized as one of the most knowledgeable individuals on accreditation of medical schools in the world. He resides in Albany, New York.

Eugene Kucharz, MD, PhD. is a Professor and representative of the University of Silesia. His distinguished CV would enable him to become an approved site visitor or Advisory Council member. IAOMC has chosen to exclude the Association's founding medical School members from either group until they are reviewed and found accredited. This policy was established to avoid the possibility of an apparent conflict of interest. He resides in Silesia, Poland

Dorian Shillingford, MD is Secretary of the Regulator Section of the Advisory Council. He is President of the Dominican Medical Board which is recognized by the US Department of Education as having standards substantially similar to those used in the United States. He resides in Dominica.

Surindar Cheena, PhD is Vice Chancellor of Oceania University of Medicine, Samoa. He will describe how Oceania's curriculum works with approximately 45% of its curriculum being taught using distance learning. A document explaining how Oceania works is attached. Dr. Cheena has traveled from Australia.

Christopher Dudley is an associate with e-Medical Education LLC, a Miami-based corporation dedicated to developing on-line medical curriculum. The University was formed by agreement between the Government of Samoa and e-Medical Education LLC. e-Medical Education LLC serves as Oceania University of Medicine US office. Its employees are e-Medical Education and the Australian office is Medical Education Services Australia Pty. Ltd. He resides in Florida.

James Appleyard, MA, BM, BCH, FRCP is an approved site visitor, Secretary of the Advisory Council's Section III and Chair of the Council's only standing Committee; Medical Ethics. He will report to the Board on the Ethics committee progress. He was Secretary and Vice President of the British Medical Association. He served as Chair of the World Medical Association's Ethics Committee for four years. During his term as President of that organization his dedication was to medical ethics. He resides in Blean, England

Nivritti Patil, MBE, MBBS, MS, FRCSEd, FCSHK, FHKAM (Surg) is an approved site visitor. He is a faculty member at Li Ka Shing Faculty of Medicine an Assistant Dean Education and Student Affairs and Director, Centre for Education and Training, Department of Surgery at the University of Hong Kong. He will provide a written document. He resides in Hong Kong.

Frank Sitt, MBBS, FRACP Vanuatu College of Medicine will not be present he will provide a written document.

Michael Golding, MD, FACS is Chair of the Advisory Council Regulator Section II and the Council's Executive Committee. He is Emeritus Clinical Professor of Surgery, SUNY, Bklyn. He resides in New York.

Michael Gordon, MD, Msc, FRCPG, FAP is an approved site visitor, Treasurer of the Medical School Educator Section I and a Member of the Executive Committee. He is a Professor of Medicine at the University of Toronto. He resides in Toronto, Canada.

Syed Ziaur Rahman, MD is a member of the Advisory Council's Medical Educator Section I. He is an Associate Professor of Pharmacology at the Jawaharlal Nehru Medical College. He resides in Aligarh, India.

Roger Brumback, MD is an approved site visitor, and a member of Advisory Council Medical Educator Section I. He is a Professor/Chair of Psychiatry at Creighton University School of Medicine. He resides in Omaha, Nebraska.

Krihna R.S. Gujavarty, MB, BS, Diplomate American Board of Psychiatry, is an Advisory Council Government Regulator Section II Member and a member of the New York State Board for Medicine (Term 2004 to 2009). He is a Clinical Psychiatrist, Associate Professor, SUNY, Stony Brook. He resides in Copiague, New York.

Dinish Patel, MD is a member of the Advisory Council Regulator Section II. He had served on the National Committee on Foreign Medical Education and Accreditation from 2003 to 2006, and was a five year member of the Massachusetts Board of Registration in Medicine with two of those years as its Chair. From 2002 to present he serves as a member of the Massachusetts PCA Committee Board of Registration in Medicine and is the Chief of Arthroscopic Surgery Massachusetts General Hospital. He resides in Massachusetts.

Haavi Morreim, PhD is a member of the Advisory Council Medical Educator Section I and a member of its Standing Ethics Committee. She is a Professor in the College of Medicine at the University of Tennessee. She resides in Memphis, Tennessee.

Wojciech Zaluska, MD, is a Professor and representative of the University of Lublin, Poland. He resides in Lublin, Poland.

Rafael Olazagasti, MD, is a recognized expert on accreditation. He has been a consultant to many medical schools and served on the New York State Regents site visiting teams. He resides in New York.

Ansel Marks, MD, JD is the Executive Secretary of the New York Board for Professional Misconduct. He resides in New York.

Neal Simon, JD is the President of American University of Antigua. He had served as Counsel and President of Ross University. He resides in New Jersey.

Geoffrey L Rubin, MD, MMM, FAAP is a member of the Advisory Council Medical Educator Section of the Advisory Council. He is a Clinical Assistant Professor in Emergency Medicine at the West Virginia University School of Medicine.

Nancy Perri, MD, Dean, is an IAOMC voting representative of a founding member, Ross University. She serves as IAOMC Vice President of Standards/Protocol and been an active participant of the Association's affairs.

Mahendra Patel is founder and President Hope Medical Institute. He is an IAOMC voting representative of a founding member Hope Institute and he interacts with the University of Lublin and Silesia. He resides in Virginia.

Arun Acharya is an Executive Assistant at Hope Medical Institute. He resides in Virginia.

Stephen Rogers is President of St. Matthews University an IAOMC voting representative of a founding member school. He resides in Connecticut.

Charles Modica, JD is a founder and Chancellor of St George's University, and an IAOMC voting representative of a founding member school, he resides in Florida.

Bernard Ferguson, JD, President, CEO, IAOMC. Has been actively practicing law in the areas of credentialing, licensure and standards for approximately 25 years. He resides in Rhode Island.

Saba and American University of the Caribbean have not announced their attendees.



International Association of Medical Colleges Advisory Council Meeting March 17, 2007 Millennium UN Plaza, New York City

TRANSCRIPT

MG I'm Dr. Mike Golding, Chair of the Medical Regulator Section of the Advisory Council. I have just been asked to Chair this meeting because the Council's Executive Committee Chair, Dr. Dick Gumpert couldn't make it here. The large snow storm has grounded his plane in Chicago. So let's start with each person introducing themselves.

The following initials in bold to the left of each name are the initials used throughout the transcript:

JH Dr. James Hillard (Randy) Associate Dean of Clinical Affairs, University of Cincinnati School of Medicine.

DS Dr. Dorian Shillingford, I Chair the Dominican Medical Board.

EugeneK Dr. Eugene (Gene) Kucharz, MD, Professor of the University of Silesia.

JA Dr. James (Jim) Appleyard, former President of the World Medical Council, Secretary of the Advisory Council's Executive Committee, & Chair of the Council's Medical Ethics

SR Dr. Syed Ziaur Rahman, Associate Professor of Pharmacology at the Jawaharlal Nehru Medical College

WZ Dr. Wojciech Zaluska, a Professor at the University of Lublin, Poland

AM Dr. Ansel (Ray) Marks, MD, JD Executive Secretary of the New York Board for Professional Misconduct

NP Dr. Nancy Perri, Dean, Ross University. And IAOMC Vice President

BF Dr. Bernard (Bernie) Ferguson, President, CEO, IAOMC

Niv.P Dr. Nivritti Patil, Assistant Dean Education and Student Affairs and Director, Centre for Education and Training, Li Ka Shing Faculty of Medicine University of Hong Kong.

MP Mahendra Patel is founder and President Hope Medical Institute. Assistant Treasurer IAOMC voting representative of Hope Institute.

AA Arun Acharya Executive Assistant at Hope Medical Institute.

ElizK Dr. Elizabeth Katchur consultant in medical education

BF Nivritti Patil couldn't be with us today but he did prepare a paper which I am distributing. I will now read it on his behalf;

NivP "My practical definition of distant learning is an 'unrestricted learning'.

Medicine, music and money (3Ms) are truly global. Medicine, be it allopathic, complementary or alternative has become 'One world medicine'; and medical education is no exception to this phenomenon. A need for medical education through distant learning is becoming overwhelming with globalization of medical education.

An access to comprehensive medical education can be provided effectively by variety of instruments of distant education. In reality, distant learning in medicine, I believe, is highly complementary to face to face education.

Medical students at Li Ka Shing Faculty of Medicine of the University of Hong Kong have on-line access to didactic lectures, clinical videos and e-forums. Medical students doing their clinical electives in remote and/or underserved population have been able to effectively communicate with the consultants (clinical teachers) through e-mails, webcams and mobile phone technology leading to practical management of patients in these geographical areas. (Medical students' elective in e-health is organized through the initiative of Health Sciences group of Universities 21 facilitated by Online Health Centre of University of Queensland)

Innovative approaches to distant learning will develop and evolve through both necessity and desire to make it work effectively. For example, during the epidemics of SARS in Hong Kong in March 2003, PBL tutorials which are usually held at the medical faculty and hospital facilities could not be held due to fear of spread of SARS affecting medical students. On-line PBL tutorial link-up was successfully tried by students from their respective homes - as they did with 'face to face' PBL tutorials.

An effort at international level to create a virtual medical school is a commendable development undertaken by some organizations such as IVIMEDS (International Virtual Medical School) spearheaded by Professor Ron Harden from Dundee, Scotland, U.K.

As I see it, advent in mobile phone technology will soon revolutionize the distant education in general and medical education in particular.

A question about copy-rights and medico-legal implications is frequently raised as an impediment to distant education in medicine and patient management related issues.

To face this challenge a progress has been made to provide an appropriate security in transmission of medical information.

Regarding concern and anxiety related to medico-legal liabilities in providing care and training through distant medical education is satisfactorily dealt by the premises and assurance that the management of patients through distant opinions and information is

considered advisory and not binding. Therefore, medico-legal issues and concerns should not be considered as an obstacle to the implementation of distant learning (and teaching) in medicine.

I see a considerable progress in distant learning for medical students. Most if not all students are computer literate and technology oriented (not necessarily dependent) in any part of the world. Cost-effective and affordable technology will certainly open up the opportunity to learn from distance for medical students in both developed and developing countries.

I wish to thank IAOMC and Dr. Bernie Ferguson for giving me this opportunity to express my views from the distance!”

MG Something I would say on distance learning and if it has any value. When we had SARS it clearly did have value. But how does virtual reality apply in this specific environment? There things in virtual reality in the United States that people should know applies. But on having hands on experience, a learning curve on paper can take them from virtual reality to develop the learning skills then they need hands on clinical. How is that going to play is two different things.

BF That was the purpose that enabled those things to happen

MG Frequently

BF That’s the word, frequently. Something we have to keep reminding ourselves, including me. Does anyone have an answer for that?

NP Are you referring to patient simulation?

MG That and other certain aspects of learning dealing with hands on patients, be it dealing with a cadaver or be it a resident or intern dealing with learning surgical skills and so forth. How you do that is a distance environment?

NP I don’t think you can do that in a distance environment. In looking at that from the standpoint of an organization of accreditation that is exactly what we need to address. How does one replace the interaction, not only with patients but the real interaction with the faculty members. There are tremendous persons teaching out there. Earlier someone was speaking about the reality of someone at a school, perhaps in a third world country, having the benefit of a Nobel laureate in biochemistry being the primary reference. But what’s happened is that we’ve all have had such experience that we’ve had coming out from the AAMC. The LCME probably has two or three new standards for accreditation that cover that. I don’t pretend to have an answer. But I think the stimulation there is a big difference in distance education from someone in the traditional model.

BF In getting prepared we provided had an overview of what exist and then could see what it is we’re dealing with.

JH I do want to comment that I want to question stimulation. The way we do introduction to clinical medicine in our faculty, and all of us in our medical school had the experience of; see one, do one, teach one. In the future we will have the technology we've worked out for such as a lumbar puncture technique which in reality will allow us to be we can be as good as somebody that does this everyday on a patient. Obviously human interaction is better than virtual reality.

ElizK Could I just make a comment on that? It may be different but it is a matter of timing. Communication might be the same but there is still the transfer of information to someone. I don't think it's a matter of stopping but it's a matter of school that is using the computer deciding what is the best way of transferring knowledge.

MG I think are there a way to do something but no way will you change hands on, it's not going to happen. But as Randy says; see one, do one, teach one – that's terrible! A lot of us have been through it and as a trained surgeon I say that is to be avoided. Airline pilots have it right, if they make a mistake, they die. In medicine if you make a mistake somebody else dies, and you go home. And I think that should be narrowed and technology is doing that. A cardiac surgeon can from the next room with a \$250,000.00 gadget, no a \$25,000,000.00 gadget can do a suture line from outside ten feet away or a million miles away. This is not the ideal thing but this could be important in certain areas. When you think of neuroradiology, the world needs neuroradiology. This is like a lot of things most are in big cities. They live a better life and they make more money. So how do you help someone hit on the head in a farm community? You need to provide them an opportunity to read their x-rays. This could be very acceptable.

Eugene K I think that first we have to distinguish the education from the traffic because the evaluation of the x-ray by a neurologist doctor that is education and I think we have to focus on what we want to have a good product. What does a good education means to graduate? I think that has three basic points, more or less. The second thing is so called physicians wisdom and the skills. And in addition to that there are two more, I say, adjectives, ethics and attitude with a patient. The first point there has been a big evolution of information. There are additional handbooks; additional lectures now more have played as before.

I remember thirty years ago the lecture was something which updated the handbook which provided the personal experience of the professor. Now there are so many sources of information that lectures by the way have no more place and more interactive I say seminar discussion, So that one thing. This is the best place for this concern. The second place problem is so called citizen wisdom. What do I mean? There are two contradictory situations, one is the idea of patients in the handbook and second is the real patient lying in front of you. You have to find this model; theoretical has to fit this patient. It is not the same because every individual is different. But on the other hand you have to find something that varies and this way – for example to order the tests student have to know what he or she is expected from the results. That is only information. All is directed to the diagnosis of the matter. But this thing cannot be done properly in this time. There may be some more of this on some special occasions but nothing can substitute for

bedside learning or experience by tradition. And the last thing is the skills. I'm sure there will be some machines that will help like lumbar puncture or like the pilot. They have to make hundreds kinds of equipment to help but once again, nothing can substitute for the personal contact with the patient under the supervision of an experienced doctor.

Two other things. There is something like; it's not ethics, but attitude to the profession. This you have to learn by observation. How to ask questions about this? I know there are some fears. But on the other hand nothing can substitute for personal contact and of course ethical values which is another thing.

So coming to a conclusion I think that distance learning cannot be considered as the substitute for traditional learning but an excellent tool which accompanies traditional learning, especially in such situations like traditional contact. Further guidelines for the treatment and diagnosis for example are elaborated by such as the American college of Rheumatologists, they provide guidelines. The second thing is the lectures. I think there is no place for regular lectures, but small seminar discussion, which can be done in distant learning. But I have also some emotional setting. If you sit in front, or in different settings, or if you talk to a machine. Of course I know its for the moment but I think its important talking about (erakada?) like - for example, tropical diseases, this is also a subject of discussion in Europe. But of course if we contact some African hospital they can demonstrate on one day ten such cases. We could wait 10 years to have but one case. I try to give the warning; we cannot go to such situations that distant learning will be the only method to learn medicine. Thank you.

MG I think that is exactly what I said, it is a supplement. I point out the difference is in the application. You really learn from the guys one year ahead of you. It's either positive or negative, what you learn from the person ahead of you. The place could be spread out. When all is said and done, it doesn't have to be done under one roof. You may have to go to the places where you learn different things. You learn like interns and residents that should remain. You learn by experience recognizing that nobody knows it all.

AM In the United States medical field the USMLE is required and they examine simulated patients in a different environment. It was vigorously disputed for a long time because the medical students have to pay \$700.00 to do that. It is now a fact of life on the third exam you have the written and actually see in quotes patients.

NP I would go back to some of the traditional standards, how would one look at your entire basic science lecture if it was completely on line? Will one say we can evaluate that delivery system is when one does on a standardized examination or do we, and again I shouldn't say but emotional standard, or should we say it just doesn't work. We don't think that that's the model. If its to work, a credit program that the entire delivery of clinical training is on line, how do we evaluate that?

JA I would like to answer that question a delivery system, is able to be evaluated. It depends on the content of a particular course and how much theory and how much practice comprise the required knowledge base. We also need to consider how much of our existing teaching practice is effective in imparting knowledge'

Formalized lectures are often remembered as pure 'theater' rather than positive learning experiences

I might say if I can indulge myself that a little thing to some of existing practice and a consideration of what we do at Dunns in terms of a formalized thing. Is this the correct way of imparting knowledge? Or is it just plain theater and fo fo. I used to give lectures on the island of St. Vincent's. And I used to enjoy it. The question of distance learning has firstly altered the paradigm we have used. Looking back into history there were two different methods of teaching the practice of medicine. One was an apprenticeship system, which it was determined what the student should learn, and that was in Italy. This is way back in the middle ages. The other was a French way that was more authoritarian. They determined the student should learn and the student had to conform to that. This imposed a greater burden on the student. What distance learning does is it puts the student back in control and provides enormous opportunities for new learning.. And the other thing it does is to reduce costs. Furthermore distance learning reduces costs to increase access to medical education. Ordinary active training - without unnecessary training. As you know when anybody has got their internet, and those things are in the University now - there are lots of men bound to the internet. There is plenty of patterning right now; it's a question of how much. If people can tap into that knowledge base you could also copy or get it on line. So, there is no reason why you cannot reach everybody. What you could do is tell everybody if there are other standards. You can find if they are getting sufficient knowledge. You can find out on line monitor the effectiveness of the teaching. You see it is not only the feeling they are acting by themselves, although that is tremendous. Remember eighty percent of the knowledge that one acquires was from textbooks. Whether or not that applies in medicine depends on whether they mumble like I do. Or whether there was there was somebody like Howard Flourey who built on the discovery of penicillin and changed the world. He gave a good lecture so we all went. My lectures at St. George's had a certain novelty value as they say. So then the students would have to have a balance between on how much information they will get from my lecture and how much from the text. So this way of passing knowledge has been challenged and changed. And provided we monitor the knowledge actually acquired, and it is required acquired from a self coverage of things - that is rather than being imposed on us That is in fact stronger learning. As a result of that I think your knowledge base; the acquisition of knowledge is open much wider. You can have the situation as a part of our separation basis that can be made available. There are ways of combining distance learning and group. And you can either get together with a group on line or you can get together physically. You can also; perhaps more efficiently return to mentors, there is nothing new in that. It is a re emphasis of that role in learning. No way can you clearly rule it out. That's a nonstarter, it is a question of how you fit it in. Knowledge and understanding are (inaudible)

With professional skills you do have laboratory and there are other skills. And there are other important roles to play. There is noting so sacred as interaction and understanding, you can prepare for this.

JH- I have a question. Communication skills?

JA I have gone on rather long. Communication skills have gone on long and it is essential that you learn this on a one to one basis and you learn techniques which I have

covered already. And that is a process by observation and practice. And in no way can you do that, in my view by distance learning.

AM I don't want to interrupt you. You have been tremendous.

JA And finally you can simulate areas some areas. Now I was traveling back by plane next to a guy from Cisco's and have a system and instead of sitting around as we do now we can have a plasma screen for us even though someone may be in Australia and somebody in Hong Kong someone may be in New Orleans and its as if we are all there. So I think modern technology is going to enable us to do all that. But in spite of all that in psychiatry there are non verbal communications that are not totally reproduce able on a plasma screen. So those are some thoughts. Whatever we do this is something that will happen we must use it effectively and make sure the pendulum doesn't swing totally. We've got to preserve those bits of medicine that are so important they really make medicine, medicine as opposed to just the technology.

MP Like you said he who ignores history is marked to make the mistake again. You look into history; take a situation that came in at radiology and x-ray and medicine, viox for example, you know, many times when we try to take a new technology or innovation in a speedy manner into a society we get surprised in to one form or another form. Keep in mind I was not in America at that time. At one time in x-ray machine development people were killed and many children were killed or maimed and it was considered to be normal. They just washed their feet. When I was in India the most thought people can put back and others can look at your body and not know how many hours or how much exposure would be there.

AM It is called on the can shoe shop. I'll wash my toes later.

MP Right, and it was considered normal. When I was in India the produce poor people can put in a food can. For hours and hours can barley not knowing how much exposure there could be there. I remember we were very conservative in FDA 20 years, 15 years test for medicine then President Regan came in and said 5 years are early, and at that end we had to withdraw it again. The new technology is always going to come, the new technology, and distance learning, e-learning whatever it is called. The idea right now as we in IAOMC is concerned I don't think we can look beyond danger. Because government – a new generation comes after us, they will move forward. Because this is the history. What we say cannot be done. A hundred years down the road it will be a totally different thing. If they can put a 747 flying on completely auto pilot with one billion miles done is a split second sure one day it will be there probably. Maybe a multi task robotic machine, down the road it would be a totally different thing. I don't think it will be done in our time. So should we be suggesting what we should do in ten years? How are we to accredit a University who may be completely depends on premedical courses or many medical science courses on a concept of distance learning. We all say that it is a supplement. I don't think you can substitute completely the concept of hands on learning and teaching and things like that. At the same time you cannot ignore the new technology coming. So it cannot be then. We have to be accommodating both

things. Thru the last 100 years we know how to make doctors. We know how to make doctors. We get them in class, teach them in a way, give them a test, hands on experience. Like you say you learn from a person one year older or 10 years older, you learn from them. We know that. Now the new reality comes to us, which is the new technology that comes. We need to tackle stimulation of both things in some manner. I think probably the new technology of distance learning if you look at it has very wide implications. Very powerful technology you know. And the world is made because the many (plasma?) in Africa you know in many parts of the world. Doctors are going to play a bigger role because we cannot make so many doctors we want. And if you look at the world the next twenty years the number of people brought in the world depends on the doctors we make. So be sure to tell what is reasonable, if there is a shortage all over, it is sure America is suffering a shortage of physicians too. So the point right now is of course we are extend to our capacity as to whether we can have a major role on a wider scale on a international level. So probably these doctors can be teaching in the while going home in Beijing or in Bangladesh in conducting a pharmacological class, talking to his partner in Mumbai giving his opinion. So this is already taking place its already there. You're talking about making a good doctor yea proving some courses can implement distance learning. We to decide what those courses are, what those parameters on technology can come in. And gradually phase in - as time goes. It is constant and it will continue for a long time and technology comes and goes and proves more and more it came come in. There is no way we can stop this thing you know. Every time human beings stop that thing usually the next thing they will recognize that. The point I'm making for us is that OK we cannot say OK lets do that for all three medical colleges, we can accept that. We can say OK some courses we can accept that lets prove that you are teaching the directing doctor on the basis of completely on an internet base, lets see. Prove that. Maybe twenty years down the road we are going to see that you know. Ten years down the road the people following us may say those are the standards and we will recognize you if you have a good product. But right now your product is not known for what it is. We cannot take them in consideration.

NP Getting back to accreditation we are talking about, what if a school applies for accreditation and they were able to show the authoritative agency that their students taught purely through distance education were performing better on a standardized examination exceeded schools in a teaching in a traditional way. What I'm saying is I agree with you I don't think anyone truly knows what component is appropriately delivered by distance education. Yes they are tools. There are a bigger variety of theories but you have got to be able to measure it.

MG I want to make a few points that have got to be addressed because you said I think as technology changes the disease changes. I remember the Chief Resident had to do 75 hysterectomies the Chief Resident today may do three. Because we found ulcers – and we found ways to treat ulcers, so the disease changes. Technology changes and I think one of the things that is incorporated in our education is critical. I sit as Professor emeritus at the State University of New York Medical Center. I must say the one drawback of many of our students is that they don't know how to think critically. That is a component that Jim Mentioned physician wisdom. I believe physician wisdom is a

point that means thinking critically. And for some reason we manage to graduate people cum laude and sure they can give back lots of knowledge but that doesn't mean they will be particularly good doctors. I think the best we can accomplish in a group like this is to set up a system of where you can measure the product. The product is a competent physician with the potential to win a Nobel Prize. A competence of a physician who can diagnose appendicitis or the flu and I believe that is the only thing we can accomplish. All these things are little tools and the standardized tests are good for what standardized tests are good for. I know people who can take tests very well but I wouldn't let them operate on me at all.

NP I would agree with you completely.

MG Let me finish. I think the best thing we can accomplish with this small group today, and I think we have done this pretty well had a pretty good airing of distance learning and there are two other items we will talk about today. One is ethics and the other is credentials. But we have to think about what's available in distance learning and where to fit it in. In a corporate world people don't go to Board meetings anymore. No-one wants to get on an airplane. Even if it's their own airplane. And things go just as well, save the company money. The corporate world is simpler than what we are trying to do. But it's all done with video conferencing on big plasma screen and soon annual meetings will be done that way so the guy who owns 10 shares of the company and the normal aspirin in a company based in Tampa. he can be there on a plasma screen and it will cost a lot less than the coffee we had today. So what I'd like to do is think about winding up this segment in about five minutes, have a coffee break and come back and talk about the other things on the agenda.

AM I wanted to say one thing. Is there anyone else who knows about the great teaching company? I think they have a screening process that should be a model for choosing the lecturers for distance learning. They are all spectacular lecturers. Now some can lecture on any subject if he or she is a great lecturer and some can give a lousy lecturer and have the same audience. Depends on the skills of the lecturer. I would invite this group to explore the great teaching company, which has spectacular lecturers giving lecturers. They have grown hugely in the United States, I don't know if you have them in England. I've listened to them all the time. They have dvd's, they have audio tapes and so forth. The owner founder of the company discusses sometimes how they go thru the selection process. I think we should use the great teaching company model for selecting lecturers. Because if they are lousy lecturers I don't care what they're talking about the audience is going to sleep.

MG Ray the lecture has to have content and that is an expert in the field. We all could speak about what we do all the time I think that is the show biz part. I found out actually from giving lectures over the years that I never wrote a lecture. I just talked about – I never had notes. My secretary was amazed I would give her my lecture to type after I gave it. Because coming out of that you have 55 minute lecture you should end leaving 10 or 15 minutes for questions and it is from those questions you modify you change it and I think you have to separate the show biz. As I understand the great teaching

company its show biz its good show biz but never the less it is content. First it should be interestingly and passionately involved in what he does. The one thing we didn't address is passion. If you want to pick students who have a passion for medicine? In another framework we see physicians who have no passion for medicine. Have no feeling for the patients and guess what? They end up losing their license, after considerable harm. Your not going to measure that with any set of tests, passion. How do you measure passion? That's when you get up at three o'clock in the morning to take care of a patient that's bleeding.

JH I just want to make a very small preliminary experiment with this in Cincinnati. Using our research functioning MRI machine with parts of your brain. It's very interesting. I must generalize. We take the same lecture and show it to somebody on a screen and then we have an individual deliver exactly the same and its amazing. You activate more of your brain when there is a real subject delivering the same material than when they're watching it. You activate the emotional parts of your brain when there is a real patient talking to you rather than on a screen. In general, it is the things that associate with emotion are things that are retained. I think that may demonstrate but I don't think we can ever replace all of the first two years of medical school by distance learning. Maybe we can have the content with a small group interaction; maybe we can get the emotional engagement. Combining the two may be able to do it. I think it's interesting that at this time in the history of pedagogy we actually can have pictures of people's brain while they are learning.

BF I just had a call from Chris Dudley and Surindar Chenna who had come from Australia to address you today. I had a chance to ask some questions you had today, here. He said distance learning does not work in a great deal of medical education. They have found that and they can point out where it doesn't work. I said my God, we need you here. He said they couldn't get here their plane couldn't come from Miami. The face to face that had been mentioned and the hands on that had been mentioned those limits are true! Distance learning has to be a balance you have to choose what you can do and what you can't do and test to find out the parts that work and those parts that don't work. They have had experience with this subject – he's looking forward to the next meeting, maybe three months down the road. If he can't be here we will have the hookups. The questions will go directly to them. So people from other parts of the world can hook up if coming back is too much. That's the story and I thought that would be of interest to us.

MG That's crucial because they have the most experience with this. We'll just have one more question and we will take a break.

ElizK I just want to say from an educational standpoint really the idea is to have blended learning. That's generally considered in education its not just distance learning or in personal learning but blended learning that combines the two so there is plenty of research to support that.

MG At this point everyone in the room agrees that there is no magic bullet. It will be a blend. Trying to take the best parts of all and eliminating the worst parts. We should break for coffee.

ElizK. I would add one thing.

MG You could do it when we come back. We do have an agenda.

ElizK All right. Ill save it for then.

MG We do have people who will remain here and we should attempt to get thru our agenda today. We reconvene in ten minutes.

Break

MG We will now go to Jim Appleyard's session on ethics.

JA Thank you very much. I wonder whether I could submit the second draft which we had "Being a Physician" for the record, rather than read it out verbatim I did send it as an attachment to as many people as I could before the meeting. It could go out for further comment it is meant to be a 'living document'.

First, I would first like to thank those of you who contributed including helpful red pen comments. I would introduce the paper by looking at it from three perspectives

Firstly professionalism from the students point of view.

Secondly from the Deans point of view, and

Thirdly from the medical associations point of view.

We should start with students; there was a cohort study of students graduating in the UK in 1995. And they listed the things they valued most. On top of their list was competence. The 2nd point was caring and 3rd Compassion. Integrity and ethics was down at number 5.

In 2004, ten years later, after they had been in practice they were asked the same set of questions. First came competence, people were very keen on competence and that included knowledge base and skills. The 2nd one was integrity. So it is interesting how the perception of what is important changed with experience.

The other important event from students point of view is the 'white coat' ceremony. Now it is practiced in I think some 90% of the American medical schools. St. George's and Ross Universities were among the first medical schools to adopt that model. The White Coat Ceremony enables students to dedicate themselves corporately and publicly and identify themselves with certain core professional values. St George's University's Professor Cheryl Cox started the ceremony very early on. The ceremony is both a public profession of the values that underpin medical practice and a celebration with the

students. . . The ceremony does actually influence, as Cheryl Cox showed, the students approach to clinical problems. It provides a framework with which they study medicine. She noted behavioral changes among the students when the white coat ceremony was introduced.

AM Who started this?

JA I mention this in the paper. It was started by Columbia U. and the essence of it is the students publicly recite their own oath. In Kigezi International School of Medicine with which I was associated for four years I involved students in planning the ceremony. I told them the values and they put them into their words. It was very much their 'thing'. It involves the recitation of an 'oath', similar to the Hippocratic Oath. The white coat rather than an academic robe acts as a symbol of practicing physicians, (though I never wore a white coat myself as a Pediatrician.) There is also an address by an inspirational and Eminent Physician.

It obviously would have to be one of those good lecturers from your Teaching Company! It's a public, family dedication and celebration which should be driven by the student themselves.

AM We in our office I might say do not discipline medical students.

JA Some Universities link this dedication with their students' code of conduct. I mention that in this paper. The student's perception is one of growing understanding of the importance of the ethical framework within which they practice medicine. They welcome a celebration. And the ceremony does influence their behavior away from pure science to a humanistic approach towards their patients. So that's from the student's point of view on the importance of professionalism.

Now how about the Deans? The Deans - Bernie sent me these articles by Kassabaum from the AAMC. The Deans were asked to rank in order of importance the LCME standards. There were 44 maybe there are more added now Nancy. Maybe it's up to 50.

NP Yes, now it's up two or three.

JA It was interesting to see how the standards were ranked. There was not a lot of difference in opinion between the Deans and most medical regulators. . . The Deans ranked standard 21 to be first.

Standard 21 says; "Students must be encouraged to develop and employ scrupulous ethical principals in caring for the patients". And that was interesting; the Deans are saying that this is the most important of all standards. And that is a good message of how important this is for us.

Among the top 10 of those 44 standards "the curriculum must include sciences basic to medicine, a variety of clinical disciplines and ethical behavioral and socio- economic subjects pertinent to medicine" So that is the LCME Standards and that is the Dean's response. The Deans response depends on whether the standard was actually implemented. So that is the US Medical Deans perspective.

So the third perspective is one from medical associations

Here I must I declare an interest in terms of the World Medical Association (WMA).

In Tel Aviv in 1999 the WMA came out with a policy statement saying medical ethics and human rights form an integral part of the work and culture of the medical profession. The WMA strongly recommends to medical schools worldwide that teaching medical ethics and human rights included as obligatory course in their curriculum.

The WMA has been setting ethical standards of medical practice worldwide since the Declaration of Geneva (1948) which was an updated Hippocratic Oath after the world war 2. The WMA have published a 'pocket' Medical Ethical manual.

The BMA has also publishes a Book on Medical Ethics in the UK which is much thicker I was involved with its development but it doesn't fit conveniently in a white coat pocket ! . There is no price on the WMA pocket book . It can be downloaded from our website free.(www.wma.net) . I would commend it to you. Porfessor Cheryl Cox was one of the experts brought in, so in some ways independent medical schools were represented thru her on that manual.

The WMA is keen that Medical ethics remains the core part of our professionalism.

I must admit when I was a student at Oxford University these values were more of the culture rather than included in a specific course. Cheryl showed us however that both an ethics course and the professional culture follow from the white coat ceremony. It is the application of those ethical principals throughout medical practice that needs to be taught and t learned during the undergraduate curriculum.

The World Federation for Medical Education (WFME) which was initially set up by the WMA, have developed global standards, which are reflected in our own standards . The World Federation for Medical Education standard 4.4, states "The medical school must identify and incorporate in the curriculum the contributions of medical ethics to effect enable effective communication in clinical decision making. It is a 'must' not a 'may'. So we have two similar obligatory standards, one from the LCME and the other from WFME.

In the paper,' Being a Physician' – the eight characteristics that identify us as a profession are lists The tendency today to try to reduce medical practice into isolated component parts and think other health workers can do any one of the components . My argument is that as a profession we are an 'integrated whole' and not an individual sum of each part . . One of the essential eight characteristics of course is a professional code of ethics. Our code of ethics is drawn from the traditional value ethics and I go on with seven principals in value ethics. They go pretty much in line with the BMA book of ethics. I deal with the central point of patient autonomy and we should do good, do no harm and we have a duty of care, we have a duty to be truthful, a duty of justice, and a duty of confidentiality.

As you were mentioning just before those values are very important to set an ethical compass. And the students need to get their ethical compass set very early on so they can navigate thru the challenging problems of their medical practice. The art of medicine is the application of their knowledge and skill guided by our conscience and ethical compass. So those are the nitty-gritty of this paper. I then go on and talk about the White Coat ceremony with relevant references and how those ethical teachings can be

incorporated into the undergraduate education .There are some good practices that I highlighted. There will be other ones

I want to offer it to you for your criticisms and constructive comments, so we can publish it as a basis for setting ethical standards.

MG Actually, this was a marvelous presentation and I think in your system, one, two and three are for it. It's kind of interesting that the Deans thought that ethics were important to have in the curriculum. I think generally – why don't they place ethics in the core curriculum? They don't. Because, it has to compete with many subjects. When they have to compete with the professor of anatomy, obviously the first issue will be anatomy. If you ask a professor of ob he would tell you of course need a year of OB. In that event school would take you 27 years. And the turf battles on the curriculum committee are great and they usually as done in most institutions they compromise and they come with something that nobody is happy with. I have lived through five separate Deans in the same place. I've not see one Dean say there should be something in the curriculum. Now if it comes from an outside source such as an Association or a regulator then it might happen but I hope your experiences have been different, but I have not seen a Dean say, oh we're going to devote four weeks to ethics. When? Oh, during the vacation. So I think it is a cultural thing. As I look over this room I see a fair number of senior citizens. It is a cultural thing. You learn most of the things from the man or woman one year above you. It can be a positive thing or a negative. I think it's important to draw attention to it and have it that people will be shamed. But you can't legislate morality. That goes back to the admissions committee. The admissions committee should figure out the right thing. New York would not have to take away licenses if the admissions committee did the right thing. So it gets to be quite complicated. And by the way, what's the committee got to work on? Standardized tests! Standardized tests and a composite letter from a Dean in charge of letters, who doesn't even know the students.

NP Your absolutely right, it's very, very difficult for say an admissions committee or an interviewer who might spend two hours with an applicant and look at MCAT and GPA. I'm a bit of a senior citizen, but what has happened from a regulatory standpoint at least at Ross University part of the standards for accreditation is have we developed competency? And one of the competencies is ethical behavior. I think the movement overtime is recognized that a medical school must develop the core competency in both the basic sciences and in the clinical sciences. And that includes ethical beliefs. How one measures is not as difficult if it has been a part of the culture of the institution. The Dean has to say this is a mandate. And in the curriculum committee, everyone wants this set quite high. But we have been through a positive report. We have students that work quite hard. They actually walk around after every clinical experience with an ethical card, if you would, and there is a measurement to determine this. Someone determines what their professional behaviors were like. This is their observation. But I would agree with you many schools have not instituted this. Many do mandate this now but how one measures this over time is very, very difficult.

MG A lot of this is window dressing. And you have to remember if you grow up in a society of pirates' obviously bigger and better piracy is most commendable.

AM In New York State we do not regulate medical students. But a study has been done that found troubled medical students become troubled physicians. And later on they do come to our attention. That's the first point. And the second point is, we contacted the Deans of the 13 medical schools in New York State about giving lectures to their students on our process and told standards are and so forth. And they turned us down. We were shocked, Dennis Gratziano and myself, remember that?

MG I remember it I found that the only way that I could get our lecture to the medical schools was by department by department. The first people that wanted to hear it was the department of ophthalmology. They wanted to know the high rainmaking thing. It is a field with the fees and very limited in what could be done. And they were most interested. They were the only people that took us up on that offer. I did talk to Ray from time to time and I give him credit for it.

AM Copyright law.

MG I know I will be happy to pay royalty on anything I earn. It is interesting, I'm glad Ray mentioned it. The Dean puts it down number one on the list, but when they had a chance the study what had been studied by the ultimate authority – you can have great grades and get great recommendations but if the OPMC, the Office of Medical Conduct thinks you are not a good doctor your not going to be a doctor. Maybe you'll wind up driving a cab but you're not going to be a doctor. And I think that's what makes the people in the State of New York safer than most places in the country. In places where they have a strong board of medical conduct it's much better. The only thing that keeps people honest is the tort system. Otherwise the lunatics run the asylum in many places.

JA I think that's a very good point because you can say these things are a matter of principle and have a superficial ceremony though at the same time it does necessarily mean 'signing up' for good conduct. I don't know if it's the same at Ross and St. George's when the students have their white coat ceremony they also agree to the terms of their code of conduct.

NP The professional honor code

JA Yes, the professional honor code professes just that. The honor code as a medical student should be related to the ethics of the profession and used to reinforce it. With regard to the turf wars, I accept these occur. Ethics is involved with everybody's turf.

MG It's the time is what's limited. I mean, these are not bad people. These are people that see the world thru their particular prism. And I believe most of us learn this by the culture as Jim said. We and a guy who broke the four minute mile, and to be modest about it he wound up a prominent neurologist. And one thing you don't control is the admissions committee. The admissions committee, who do they pick and why did they pick them? And the comment Ray made about troubled medical students generally become troubled physicians, is absolutely true. How do we inculcate these words and

thoughts into the very being of a physician? It's nice to have your guide if you're in trouble, to look at and see the ethical paradigms but from the first day the professor of anatomy pulls back the sheet and says this is a human body this person. This body had a husband or wife and children and these things you will never know. Treat them with respect the way you would treat any other human being. Now at one time they did that. I haven't been in an anatomy lab in awhile, I'm not sure it is still being done.

Voice Especially in Taiwan.

AM In Taiwan they elevate this thing.

NP What about Board members? And even anatomist who suggested that each student write a personal letter to the family or anyone.

MG Great idea. Where do you get your bodies from?

NP From the US.

MG From where?

NP Most come from Wisconsin. They procure them from a funeral director in the State of New York.

MG Actually there was a famous scandal recently about the funeral director that had an interesting sideline, selling body parts. You know spare parts are good for cars and good for people. I think that in NY our bodies actually come from unclaimed people. They will donate their cornea, their kidneys their heart and occasionally their liver. But they will not donate their body. I'm not seeing that done. So the question in New York with a high murder rate, as the murder rate falls the number of bodies falls. So I think the idea of the letter is good.

But more importantly, it's not what you put down, that's window dressing, it's what you feel about it. I thought it was awesome! A doctor people take their cloths off and tell their most intimate secrets. You know things you shouldn't know. I was awed by it I don't know why. But I hope a medical student and doctors look at a patient and they see their grandmother or their grandfather. And not just a problem to be solved or a Medicare check to cash. I don't know how to sort that out.

BF One thing I was privy to was a discussion with some accrediting persons on this very subject. How do you teach a value system? How do you teach attitudes? One of the comments made was JAMA has a guest article on a regular basis. It's a doctor writing about an ethical problem and how he dealt with it. Those are very effective if you read them. JAMA is going to publish such a book, you might keep it in mind.

MG Another source – NY Times Sunday section column on ethics. Interesting on what you do when you find someone's cell phone. There is all kinds of ethical issues. There is more and more awareness of the issues. And this is incorporated in the framework of

what you parents taught you. If you grow with the pirates you want to be a bigger and better pirate.

JA There is a compact between a teacher and learners of medicine which is helpful, in reinforcing that. But it all comes down as you rightly say to the strengthening of those virtues that underpin the doctor/patient relationship. You cannot sustain that degree of intimacy and trust without clear recognition of the virtues underpinning the relationship. That is absolutely fundamental as to how we are really treating people. I think you are probably familiar with this.

MG Eugene

EugeneK It is to say further one of the weak points of the medical colleges is the methodological system of how to induce in students the ethical value. Because we know very well how to survive the education in anatomy, etc, etc. We try to copy the same methods in ethics and attitudes, which is a mistake. Because, in my opinion they are students are from one side and not first mathematicians on theoretical ethics. And second medical students are too focused on medicine. Of course it sounds fluky but they want to be at once to be a doctor. Everything was pure theoretical. They say, oh I have to listen because it is the Rector, who is in charge.

We need to switch from the so called, theoretical ethics and to go to practical ethics. And so it would be much better if the ethics were given to the students not by a professional doctor but by for example by senior citizens. One of the good points is to employ or to ask some experienced internist, etc., etc, who is on a pension but can provide lectures based on his professional life. This would be much more understandable to the students. Because I know almost all college have some courses of ethics, some number of hours of ethics. Local Universities have asked the medical school to send doctor to give ethics lecture. I have listened to such lectures they are very well done, but they are too theoretical. To say this is too theoretical students are much more mature. We have to consider there is a special method and we cannot copy those methods. We have an annual ceremony to define the anatomic. This is ecumenical so it is usual to face the catholic service because such population usually donate all this and students accept such things and there is a symbolic container of effort to people who are going to die. I think ceremony usually for the first or second year students because they have anatomy but I think they are excited imagine or maybe later they think that this session may be a real woman, indeed a unique woman who for them it was not only an anatomic separation. So I think this birth that has a name on it, what was at once but they are single when sometimes thinking as a computer.

MG I think we can agree what is a reality is that it is cultural. It's the culture in the place that's why I made the pirate analogy, twice. It has to do with the people ashamed to do the wrong thing because the culture around them doesn't permit it. Of course you always have the question, what do you do with those who are caught cheating on the ethics exam?

Voice Flunk them.

AM One of the subgroups on this topic is the treatment of women. We find in our office that unfortunate in some of the international medical graduates is some of the international graduates regard for women are different that what is appropriate in this country. We find that quite frequently. International medical graduates shouldn't have disrespect for woman because this culture is one that is respectful. It's part of our culture or mores.

MG That is a problem but it can be addressed. You have to modify your culture beliefs if you want to take care of patients in this country, and I think that can be done and I think inadvertently it does cause problems that leads to bad communication and bad communication leads to bad results. Now are there any other questions about the problem of ethics.

JH The point I would make is I'm quite pessimistic about the ability of us on two things about ethics. Most students, without going to a lecture at all if you give them a test will give out the right answers on a multiple choice test. But it is how you apply them in a clinical pathological context, clinical ethical context it's really the cultivability of all this

NP I like that.

MG In the particular case with the questionnaire or test someone may cheat

JH Right

MG The most important thing is the culture and the culture comes from the leadership and the leadership should call on all generations. And the one thing all experienced physicians have is they are busy is they have to get along with people or else they wouldn't be very busy. So I think that this is something of a problem that we can solve. By it will be solved with number one, better selection by the admissions committee, secondly have it permeate every discussion you do.

There is no small operation if you happen to be the patient. The treatment you propose, how does that impact on the patient? Including on their family, on their finances? And finally when people can't get it, there should be a mechanism to put them in a different direction of patient care. Ethical breaches are reprehensible because we are given by society a very special position. I think the Chinese have a good way; they pay you to keep them well. If you get sick they don't pay you. I mean, I'd like to suggest that as one possibility.

I think this is a healthy discussion and we should carry that away and come out with a statement, not at this time but a year from now. Put together a statement that comes from this advisory group.

JA If I could have further comments on this. There are suggestions from the University of Chicago as to how they teach ethics there. They have ethical aspects flags up on every clinical problem which was discussed. I wouldn't say any one answer is always right. Deciding how to reach an answer is important. If there is anything you can add to this for the Paper with suitable references I would be very grateful.

AM Do you have any other copies?

JA I will email you.

AM I should have gotten one.

MG There were three versions and the final had the bibliography.

JA Right.

BF One other thing I should add. The ethics committee is our only standing committee and ethics will be number one with this association.

I don't think everyone is aware of this because I haven't sent out the emails but we're building firewalls within the association to protect schools that are not applicants. For example we've had an email vote and our schools have approved the site visitors will administer themselves. The site visitors will chose the site visiting team. This will bar any school from saying you are using this as a protective association because we know who is going to nail us and you put them on our site team. This is not going to happen because the site visitors themselves will determine. They will establish a protocol for selection and they will follow their protocol.

And the government observer panel will also have a firewall. They themselves will choose who the government observers will be. This is so they can have confidence in those who become observers.

Any ethical questions in the future, of any sort, be devils advocates. Look at this association skeptically from the other side. Consider the vantage point of those who doubt the validity of what we're doing. Don't hesitate to raise any ethical question to our open and transparent ethics standing committee. Better we should raise doubts before they come from the outside and resolve them. The ethics committee will be right up front and on top of issues.

MG I think that's a proper answer. I agree we should make our thoughts made known to Jim who is putting this together and at our next meeting come up with a document of principals saying what Bernie just said. This is our number one concern, it's a major concern and to wraps everything else around it. On that we close this section and have Bernie talk about certification.

BF We're two minutes before twelve and I think we're going to find lunch in the other room at twelve.

MG That gives you two minutes to close certification. The rule is you wait two minutes for an assistant professor, five minutes for an associate professor and fifteen minutes for a full professor.

BF If you like I'll introduce the subject, we can talk about it at lunch and pick up the subject when we reconvene. What this amounts to and I'll be very brief it's a big world and a great deal of the world will not have the same standards and couldn't conform to many of the standards of the developed world. They simply could not do that. This organization is about enhancing medical education and that includes those schools without the economic resources to teach and deliver health care of the developed world. Their medical schools are not going to reach an accreditable level. How can we help them and that what this is all about. So I'd like to see site visitors visiting these schools with the understanding that we're going to help to the fullest extent we can- we'll suggest and recommend how they can provide the maximum benefit within their limited resources. In some countries that will remain nameless, they don't have the money to treat the people to start with and they don't have the money to give their students a good education.

So maybe we should have another category or process apart from accreditation, so we can certify they are teaching to the maximum capacity. That is the essence of the substance of this subject. So I ask you to reflect on that and think of a way we can help. That's what we're all about, enhancing medical education. And for those less fortunate so they cannot provide a good education, I think we should do something to help. That's up to you. I'm looking for answers whether it's calling the review Division 1 and Division 2.

MG I think Bernie

BF Should it be open and public, its kind of a problem for them to say we're not going to make it. Should this just be a service that's

MG I think that as more site visitors, as we get more site visitors, like I can't comment. I've never made a site visit. I know something about medical education, only when you start to see and build up a body of knowledge then this discussion would be more relevant but it would be more pointed. How many people in this room have served as site visitors? Two.

Voices- Three

MG Three?

BF Look to your right.

DS I think Bernie we have difficulty here. One thing is the use of the word certification.

MG You can help fix focal defects.

DS Right

MG But if there is a global failure I think if you could give it a fair chance to fix it, you can't fix it. And obviously you don't throw good resources after bad. If it's focal and the surveyor and the site visitor can see the focal defect, that you can fix. But a global deficit you can't.

JH Last night I was I was talking about scuba diving - inaudible.

NP We could serve as consultant or advisors. There is no opinion at the end it just helps the Dean see what direction to go. We can volunteer.

MG That's but one more tool, but I think what we need is more information. You have to recognize there are certain problems that can't be fixed and its unfair to nourish the dreams of people that can't be fulfilled and further diminish the dreams of people who are expecting to become physicians by an alternative pathway. We can stop now and this can be a topic for another advisory committee and we could probably make this an agenda item after we collect the experiences from more than one quarter that we have in this audience. In other words more site visitors maybe some from this group if they are available and that would give us more to talk about.

AM Most of all Tom Monahan should be here.

MG Yes. Tom has the most experience and an open mind. And I think this conversation would be better held when there are more here to participate in it. With that we will adjourn to lunch and come back at 1:30.

BF The members were supposed to meet at three so it looks like there is one member here. Let's have lunch but if it's like anything that has happened before this hotel will think 12 o'clock meant midnight and we'll all go hungry.

AM You know in Peru the national ethic of being late by one hour. And if you showed up on time you waited. So what they did is have a holiday in Peru and Church bells rang at 12 o'clock and from that point forward if you make an appointment you had to be on time. So let's hope lunch is on time.

LUNCH

BF We are back in session. We have fairly well covered as much as we could in the absence of Oceania and those with experience in distance learning. To sum up, I think I could say that there is a great concern and most of the concerns of the people here were expressed on the record. We planned to have specific deliveries and that was changed to

a discussion period. If there is something else that any one would want to put on the record- or something that someone wanted to comment on, this would be the time. Because we're going to wrap it up.

Eliz K. The thing that I wanted to add before was the importance of distance assessment. Assessment drives the curriculum, I'm sure that you have all heard that many times before. And so it seems in any accreditation process there will be a need for knowing not only how people are being taught but as to how people are being assessed. And so having performance meet assessment in a curriculum that is highly or poorly learning based would be really critical. For example Drexel University has developed OSCE for students who are in Pittsburg. The structure is in Philadelphia and they have students rotate thru Pittsburg. So they have developed an OSCE where students are in communication via a conferencing - teleconferencing. They have four conferencing stations and they have now four or five years of experience with having some students via teleconferencing web based, you know in person, when they are in Philadelphia. So it seems that would be are a good model as to how to work, and also a performance based assessment.

Eugene K Just a comment. It is an important for elaboration to determine the position of the graduate and of course for several years there will be no good measure the final product. But on the other hand we all agree the good physician is more than the knowledge of the test, and the danger of distant learning is the point I would make is that distance learning would be perfect for preparing for the test so you can get to the point that you have knowledge of the test. The first test results will be excellent and the skills and ability to deal with the patient will be very poor so we should keep this in mind.

WZ And at this point I would say in the context whenever the graduates have done some kind of MD or services on line but that also after this point when it is added then produce physicians who have somehow have got good training it may be different when it comes to patients and other things there is the real truth and so it is very important to...

AM How do you avoid in distant testing the candidate having an open book in front of him or her?

Eliz K. I think again it is another - they thinking about the testing in the future it's not just a matter of regurgitating information. If it was it would be a problem to organize information, critically assessing information so really we have to think with the explosion of information in medicine its not going to be an issue if they can remember everything but it's a matter of whether they can find information whether they can utilize the information whether they can translate it into physical content for example. So I think it's no longer such a problem.

JH My favorite metaphor on the way we practice medicine now is go the airport and go up to the ticket agent they have get all that flight schedules they have to go to the computer

Eugene K I think you are testing not only by the book where there is information but there maybe information, other data. Probably you think how to avoid a real bad situation. It's not only part of the book, but other of the data. So I think this can be done with some technology

AM Not only an older brother, but another computer.

MP I'd like to comment about the... if you look many engineering colleges at good school American colleges like MIT now they are not like a program in but in engineering the technology on the field actually is available but they are insisting on going into the corporate world or in Indian firm depends on experience, you know. So the technology we are talking about to make a doctor should be limited, supplemented not as a main course of educating a physician. They should be taught about where to find this limitless information, where to find, where to look for, these things are available, so these are the tools to enhance the knowledge to expand the knowledge, the main course is to make a doctor or physician, you know. We have to be very cautious on this, not to go too aggressively. But to recognize the technology is still there. So have some kind of stimulation of technology, not the main course for teaching which we have right now.

BF OK, there are a couple of comments I would make. On how to measure training will take time, which was raised by Elizabeth raised. There had been a resolution that the Advisory Council study and report on standards on new and evolving schools and the output measure is the single most important criteria for judging any medical school and when you have new and evolving medical schools you can have a continuing evaluation. In the first two years sending a team and then a limited team for the third and fourth years and then you have graduates who haven't emerged and you have had an accreditation process. However, this comes into play and this also applies to Eugene's comment on the actual book exam is not yet it is the clinical skills manifest themselves with patients. That was only discovered in this country recently. Then they began the Clinical Sciences Exam (CSA) added onto Step three where they actually had simulated patients and now one can make some judgment at the time. And while that is limited measure it is a light year from what had existed. And there was an enormous discussion state by state would they even add and recognize the CSA. Students came in and said this is too much money there are not enough money why \$1,000.00 and why when we graduate student loans and the states insisted you will do the CSA because Gene the point you just raised the book knowledge is not enough you must have inter personal skills with patients. Now its turned out there is a failure rate on the CSA. There are people who cannot become doctors because they can't relate to patients. They may have to take the CSA a second time so it is an excellent point. I would pose and you're going to have to come up with a recommendation in terms of time. Here we do have Steps 1,2, and 3 including CSA. In many parts of the world there isn't such an examination system.

I had an email from a physician in Turkey and he told me that Turkey was going on the rule that if they had gone to a Turkish school they are fine. This doc had said that's not right. We have some bad docs who graduate from Turkish schools and there is no test. This is a meeting of the Advisory Council and I mention it here because this is something

you have to think about it. At some point we will have to say that there is a test comparable to the CSA or comparable to whether it's a national test or an international test or whatever. But there need to be a testing mechanism, some output measure to tell us if the education was good. In this country we have bad medical schools. It's not known but its true and I'm sure that s true throughout the world, good and bad.

NP I would offer that the National Board of Medical Examiners offer an international service on line testing in both the basic sciences and the clinical sciences. They also offer resources for the faculty. I think there is global medical education there is global standardized education as well.

BF When I see all the grey hairs around the table – except Arun, you're the kid on the block.

AK You know how to hurt a guy.

BF Years ago, when we here first began, the science and art of psychometrics was not refined anywhere near where it is today. The validity of tests is so enhanced in the last 25 or 30 years. Testing is really pretty good today and it was unreliable many years ago.

AK The language barrier is usual in international testing.

BF. No the test can be converted into whatever language. Medicine is taught in, I forget in 87 languages around the world?

AK I'm talking about the CSA

BF Oh, for the simulated Patient?

AK Right

BF The tests would have to be indigenous to the language of the school.

AK If not it would make it tough.

BF Yes. To be ideal the simulated patients in Poland would speak to Polish too the graduates of the Polish school and so too around the whole world.

JA I don't know in Poland if you do have a final clinical examination?

Eugene K Yes

JA Which you will cover those aspects.

Eugene K Which aspects? People speak about the same. In some nations there is an internship after graduation. And it is difficult to follow graduates. There is a licensing exam.

BF Elizabeth, you had raised another question about taking the tests and then be prepared to practice medicine. And you made reference to the explosion of knowledge. Now, in this country the system we have is deeply flawed, terribly flawed. It is because of the explosion of knowledge. Every state has a licensure law and they say you must take the test and pass but after you pass you're qualified for the rest of your life to practice medicine and all its branches. There is no person on this earth who knows all there is to be known about medicine. It cannot happen. The extent of the ignorance that the individual physician will have is getting broader and broader because every in specialty and sub specialty the rate of discovery has exceeded the ability or capacity to absorb it. So each one is getting smaller and smaller. To practice medicine and all its branches is nonsense. To take a test for the rest of your life is so mad. Some of the specialties require recertification after a number of years and that good for Boards but we don't have that for licensure.

JA As they do in Canada.

BF In some provinces. Each province has its own law. There may be other places in the world, I don't know.

JA I think it's a five year recertification.

SR I believe Japan.

BF I do remember a comment made by David Baltimore who had received a Nobel Prize. On the Charlie Rose show – I may have put this on our website - he said in the next decade we will double the mass of knowledge. About twenty years ago they had doubled the mass of knowledge. So anyone who graduated thirty years ago and hasn't taken a current test may not belong in the practice of medicine. I wanted to mention that it's a problem of our times. What we've done here on distance learning- we really need definition. It's the State regulators who have prompted this and they are the ones that are protecting the public. Where all the intuitions are that are supposed to be asking the questions we have been asking, I don't know? There is nobody minding the store in my view. So what you are doing is essential and there is a lot of good questions that will be coming into your court as we go down the road, things that haven't been touched and never been mentioned and everyone knows is nonsense. So we'd like to straighten a few things out.

I thank you for your supplements. They triggered other things that are down the road. This gives you time to think about them. A solution starts in one mind and goes out from there. Hopefully those minds are around this table.

We had scheduled a meeting of IAOMC, but the weather has been such that not only was our discussion inhibited and had a great loss of participants. Fifteen people made it here out of thirty five who were able to get thru and make the meeting. Amongst the schools we have Ross University as the only school that could make it and I'm sure when I can finally get my emails I'll find whatever happened. I know what happened they don't have to tell me. We will not have an IAOMC meeting with one school-

Eugene K Three schools!

BF Your right, two voters.

AM It's not a quorum.

BF It's not appropriate. That being the case we will adjourn both the Advisory Council and IAOMC. Now let's see if we can get a fix for a date down the road. There has been criticism there has not been enough notice. We are certainly not going to meet in New York again, we can't afford it.

AM Except at the UN you said.

BF Yes, except at the UN so maybe next year we'll have a meeting at the UN. They have a caterer that not too shy. You can make the decision now. How far down the road? We will have a telephone hook up for those who come from great distances and don't want to return. We should have a large participation, just about everybody. The Advisory Council and site visitors continue to expand, we have thirty nine site visitors and there are schools that do want to apply for accreditation. Today is the first date we are open to new schools. I know Frank Stitt said he wanted to apply. I think we have to resolve the issues before we could consider accreditation of a distance learning school. There are several others that have indicated an intention to apply for accreditation. I can see there will be new schools applying. The Advisory Council will be bigger because the more minds considering problems the better we are.

The Advisory Council has established a record it will be transcribed and be ready in about two weeks to be on the web site.

The date of the next meeting? Anyone want to offer a suggestion? Some dates?

NP After the summer.

BF Not in the winter Nancy and that's it!

NP I think we did this early fall last year.

BF Yes, August 12th. September is a better month, its cooler. What are your thoughts?

MP Last time - we have a convention in August. The Polish delegation comes here to attend the convention. Arun what is the date?

AA The 14th.

MP So before or after the 14th.

JH It doesn't matter.

BF OK so it will be on either end of the 14th.

MP Make it the 13th.

BF OK? Will do, that's the date. We'll check with the schools.

MP Question - are there five members or did some drop out? What is happening?

BF I haven't been able to get on the internet myself. I really don't know one school had a reluctance to pay a full amount, which was \$50,000.00 up front and had announced if that was a condition they wouldn't be attending, they were unable to do that. Then there was a discussion we need extended payments, that went out for vote and extended payments would be accepted. Three are onto the extended payments. Hope, Ross and St. George's. I don't know it's locked in my email and I can't get it. One of the unknown was prepared to put up the \$50,000.00 but wanted to see what the others were doing I think he will probably go onto payments, the others I don't know. That's the latest I've got. There are new schools coming in. It will amount to the founding members will have put up \$47,000.00 the first time and \$50,000.00 the second time which is a total of \$97,000.00. The new schools that are coming in are beneficiaries from the money invested to make this possible. Yet there are schools that are poor around the world and we didn't want to have then have a burden so we had fairly well settled on \$25,000.00 up front to cover them for a couple of years.

MP Should we look for more funding to be available because, again, in many parts of this world this would be a big sum, number one and many medical colleges like in India and Poland the government owns medical colleges. We don't want to make only one block of the Caribbean or Polish, we want to have one world. So we need to face reality, those colleges, their graduates are coming to this country and working in Bronx and Brooklyn and all the way to East India and in between so we have to conquer the world. So how to create the funding to for either a rich government or non government can be equally allowed? It looks like now we create the thing and now about \$25,000.00. I'm upset about few colleges flourishing in many parts of the world they would take advantage and be labeled with enterpol kind of school because they know they see the benefit coming so they start putting money. If you ask me we see the benefit to our students. But at the same time, fine we did it, I don't have any regrets. Now to go forward with your idea like Bill gates or we could invite him for some kind of funding, whatever. We need to do this kind of thing because it's a big country a lot of people coming in. Maybe we look to

those four or five countries you know. We have to talk to these governments and organizations and medical colleges to find a funding mechanism because this organization needs to be careful that no medical college with a bad reputation will hurt us.

AK We could look to the Federation principally as a resource. They are very wealthy you know.

BF I know. And so is the ECFMG.

AK Maybe they could give you some good advice on who to go to

BF Yeah. We do have among our site visitors and among our Advisory Council members' people who have extensive grant experience and your right Mahendra there will be schools that find \$25,000.00 a big problem. There are several things we could do, take installments that's one thing we could do. We are a tax exempt organization, so one who makes a donation to this not for profit association .will get a tax deduction. I think we will bring in money. I think we will be able to help schools.

MP Another thing coming into my mind and to think about, many schools have graduates and alumni working there. Or associations like Indian Medical called APIOA, a very powerful organization. They may adopt this as supporting their school. We have to look to see how many organizations have a large block of physicians. Like Bombay medical college or Grant medical college there are thousands of them. There was a convention at Emerson University and 700 coming from one college alone. We maybe contact them, I'm sure they can sponsor that school you know.

JH. That's a good idea, there is a Philippine psychiatric association there are a thousand people there.

BF The Philippines is a major supplier.

JH I think your right.

MP There are a lot in Chicago alone so we can connect them.

NP Right

BF At the moment we are not faced with anyone who has come to us with a problem but we'll phrase it in a way if there is a problem let us know.

We did have a resolution to inquire. We found there were 192 nations in the world and 32 that had no medical school at all. We sent to them the idea the members of this organization would be prepared to discuss some type of proposal to help train their citizens. We didn't make any definitions at all we were serving as a catalyst. It was up to the country to follow thru and the schools themselves to see how helpful they could be.

In some of the schools there are programs. I know St. George's provides full scholarships to five citizens of Grenada and three St. Vincent and 15 for Trinidad and Tobago. Most of those people could not afford the education. Whether any other school would want to find something, books or tuition, or whatever they would want to do. If, they would want to do anything at all. That went out to all of these nations. We only had four nations respond, no three nations with a response. They had no idea what they could get. So under no circumstance would they be interested. One of the three said that we have no interest because all schools teach in English and our country speaks French. So if some native speaking French speakers would be willing to learn English to get an education, he or she couldn't. Just to give you some concept of what's out there. The response was astonishing – even if it's free. You would think many would say, what's the deal? Let's hear it before I turn you down. But if they don't even want to hear it you have some insights into the mindset.

Is there anything anyone wants to put on the record? I call the meeting to a close. I thank everyone for being here.



For International Association of Medical Colleges Advisory Council Backgrounder Overview

Definitions

Advisory Council’s Executive Committee should begin with an agreed definition in terms. The following may be helpful. It has been copied from Wikipedia. A search of “Computer Assisted Learning” resulted in a redirection to;

“Computer Based Learning”

“**Computer Based Learning**, sometimes abbreviated **CBL**, refers to the use of [computers](#) as a key component of the educational environment. While this can refer to the use of computers in a [classroom](#), the term more broadly refers to a structured environment in which computers are used for teaching purposes. The concept is generally seen as being distinct from the use of computers in ways where learning is at least a peripheral element of the experience (e.g. computer games and web browsing).

Debate

Since its inception, Computer Based Learning has been a subject of close scrutiny and debate, with myriad arguments being advanced both in support of and against CBL.

Among the arguments advanced by the proponents of CBL is its ability to provide quantifiable and instantaneous feedback for its users. It also often allows for educators to measure progress in an environment that is often more structured than the typical classroom, limiting stress and allowing for a focus on non-technical elements of pedagogy.

In particular, Computer Based Learning is often seen as the most efficient and effective manner in which to conduct [distance education](#), as a lesson plan can be created that

allows people to study at their own pace, either via the Internet or software installed on individual computers at various sites.

One strain of thought advanced by some advocates of Computer Based Learning suggests that the best use of CBL is alongside a more traditional [curriculum](#), playing a supplementary role, facilitating interest in a topic while developing the technical and informational skills CBL promotes. Companies now providing CBL products, including Blackboard and iLearn, have often taken this approach in creating and promoting their services.

Those skeptical of the value of CBL have often argued that it can only teach to its programmatic limitations; that it is not as good as having a human teacher because it can only answer questions which have been programmed into it.

In addition, critics such as [Neil Postman](#) have argued that a curriculum with a computer at its core teaches a "[technocratic](#)" belief system, making all education into an uncritical type of vocational training. Rather than developing the more generalizable skills of reading, writing, and critical inquiry, the prominent use of computers in the classroom teaches how to manipulate the technology to elicit the desired response in a non collaborative, non-rational manner. In contrast, CBL advocates such as [Jonathan Bishop](#) believe that the use of computers in education can lead to social justice^[1] and can be successful when [weblogs](#) are used as reflective learning logs^[2].

See also

- [E-learning](#) Use of computers and particularly internet to support learning
- [M-learning](#) Evolution of computer-based learning to more compact, mobile digital devices

Retrieved from "http://en.wikipedia.org/wiki/Computer_Based_Learning"

Distance education

Distance education, or distance learning, is a field of education that focuses on the [pedagogy/andragogy](#), technology, and instructional systems design that are effectively incorporated in delivering education to students who are not physically "on site" to receive their education. Instead, teachers and students may communicate asynchronously (at times of their own choosing) by exchanging printed or electronic media, or through technology that allows them to communicate in real time (synchronously). Distance education courses that require a physical on-site presence for any reason including the taking of examinations is considered to be a hybrid or blended course or program.

Types of distance education courses

- Correspondence conducted through regular mail
- Internet conducted either synchronously or asynchronously
- Telecourse/Broadcast where content is delivered via radio or television
- CD-ROM where the student interacts with computer content stored on a CD-ROM
- PocketPC/Mobile Learning where the student accesses course content stored on a mobile device or through a wireless server

Origins

Modern distance education has been around at least since [Isaac Pitman](#) taught shorthand in Great Britain via correspondence in the 1840s^[1]

One of the oldest distance education universities is the [University of South Africa](#), which has been offering Correspondence Education courses since 1946. The largest distance education university in the [United Kingdom](#) is the [Open University](#) founded 1969. In [Germany](#) the [FernUniversität in Hagen](#) was founded 1974. There are now many similar institutions around the world, often with the name **Open University** (in [English](#) or in the local language), and these are listed below.

There are many private and public, non-profit and for-profit institutions offering courses and degree programs through distance education. Levels of [accreditation](#) vary; some institutions offering distance education in the [United States](#) have received little outside oversight, and some may be fraudulent [diploma mills](#). In many other jurisdictions, an institution may not use the term "University" without accreditation and authorisation, normally by the national government.

In the twentieth century, [radio](#), [television](#), and the [Internet](#) have all been used to further distance education.

Methods

In Distance Education, students may not be required to be present in a classroom, but that also may be a question of option. As for an electronic classroom or [Virtual Learning Environment](#), it may or not be a part of a distance education set up. Electronic classrooms can be both on campus, and off campus. We would call such institutions as using a 'flexible' delivery mode.

Distance Education may also use all forms of technology, from print to the computer. This range will include radio, television, audio video conferencing, computer aided instruction, [e-learning](#)/on-line learning et al. (E-learning/online-learning are largely synonymous). A distinction is also made between open learning and distance learning. To clarify our thinking we can say that while 'open' education is the system in which the student is free to choose the time and place, but distance education is a teaching

methodology used when the student and teacher are separated by time and place. Thus it follows that not all open-learning institutions use distance education and not all organisations that use distance education are open learning institutions. Indeed there are many cases in which students are in traditional classrooms, connected via a video-conferencing link to a teacher in a distant classroom. This method is typical in geographically dispersed institutions. Conversely, the term **virtual university** is sometimes used to describe an open-learning institution that uses the Internet to create an imaginary university environment, in which the students, faculty, and staff can communicate and share information at any time, regardless of location.

Distance Education has traversed four to five 'generations' of technology in its history. These are print, audio/video broadcasting, audio/video teleconferencing, computer aided instruction, e-learning/ online-learning, computer broadcasting/podcasting etc. Yet the radio remains a very viable form, especially in the developing nations, because of its reach. In India the FM Channel is very popular and is being used by universities, to broadcast educational programmes of variety on areas such as teacher education, rural development, programmes in agriculture for farmers, science education, creative writing, mass communication, in addition to traditional courses in liberal arts, science and business administration.

In short then, though a range of technology presupposes a distance education 'inventory' it is technological appropriateness and connectivity, such as computer, or for that matter electrical connectivity that should be considered, when we think of the world as a whole, while fitting in technological applications to distance education.

Delivery systems

Older models of distance education utilized regular mail to send written material, [videos](#), [audiotapes](#), and [CD-ROMs](#) or other media storage format (e.g. [SD card](#) or [CompactFlash](#) cards) to the student and to turn in the exercises. Today's distance education course makes use of [E-mail](#), the [Web](#), and [video conferencing](#) over [broadband](#) network connections for both wired physical locations and wireless mobile learning. In some countries, the material is supplemented by [television](#) and [radio](#) programming. To compete with the conventional sector, course material must be of very high quality and completeness, and will use modern technologies such as [educational animation](#).

Full time or part-time study is possible, but most students choose part-time study. Research study is possible as well. Distance education is offered at all levels, but is most frequently an option for university-level studies. A form of educational program which is similar to this but which requires some amount of presence during the year is a [low-residency program](#).

Distance education programs are sometimes called **correspondence courses**, an older term that originated in nineteenth-century [vocational education](#) programs that were conducted through postal mail. This term has been largely replaced by *distance education*, and expanded to encompass more sophisticated technologies and delivery

methods. The first subject taught by correspondence was the [Pitman Shorthand](#), a tool of [stenography](#). [Primary](#) and [secondary education](#) programs were also widely available by correspondence, usually for children living in remote areas.

Testing and evaluation

Distance education has had trouble since its conception with the testing of material. The delivery is fairly straightforward, which makes sure it is available to the student and he or she can read it at their leisure. The problem arises when the student is required to complete assignments and testing. Whether quizzes, tests, or examinations; Online courses have had difficulty controlling cheating because of the lack of teacher control. In a classroom situation the teacher can monitor students and visually uphold a level of integrity consistent with the institutions reputation. With distance education the student can be removed from supervision completely.

Assignments have adapted by becoming larger, longer, and more thorough so as to test for knowledge by forcing the student to research the subject and prove they have done the work. Quizzes are a popular form of testing knowledge and many courses go by the honor system regarding cheating. Even if the student is checking questions in the textbook or online, there may be an enforced time limit or the quiz may be worth so little in the overall mark that it becomes inconsequential. Exams and bigger tests are harder to regulate. Obviously the mark-oriented students cannot be trusted with their own marks. In smaller tests a professor may employ another computer program to keep all other programs from running on the computer eliminating the possibility of help from the Internet.

Used in combination with invigilators, a pre-arranged supervisor trusted with overlooking big tests and examinations may be used to increase security. Many Midterms and Final examinations are held at a common location so that professors can supervise directly. Many of these examinations are still on the computer in which case the same program blocking software can be used. When the Internet became a popular medium for distance education many websites were founded offering secure exam software and packages to help professors manage their students more effectively.

References

1. [^] Moore, Michael G., Greg Kearsley (2005). *Distance Education: A Systems View*, Second, Belmont, CA: Wadsworth. [ISBN 0534506887](#).

Background to Distance Learning – Overview

“Making the Grade- Online Education in the United States, 2006”

http://www.sloan-c.org/publications/survey/pdf/making_the_grade.pdf

<http://www.westga.edu/~distance/ojdla/summer62/baker62.html>

<http://www.ncate.org/documents/boeMaterials/distlearning.pdf>

<http://www.cdlponline.org/index.cfm?fuseaction=whatis&pg=7>

http://www.neasc.org/cihe/best_practices_electronically_offered_degree.htm.

http://edumed.unige.ch/udrem/english/research/research.html#clin_comp#clin_comp.

op_
ethods_
elf directed and deep
arning_
roblem based learning_
evelopment of problem
ased learning_
uided discovery learning
rd study guides_
ne changing role of
achers_
onclusion_
eferences_

Medical education is a lifelong process embracing premedical experience, undergraduate education, general clinical training, specialist or vocational training, subspecialty training, and continuing medical education. Although medical education was once seen as the province of medical schools and teaching hospitals, large and increasing numbers of practitioners now provide teaching and promotion of learning outside the traditional environment.

Over the past decade both the university sector and the NHS have seen considerable change as a result of increased accountability for their activities, and all the signs suggest that the next 10 years will be no different. Simultaneously, medical schools are having to acknowledge the implementation of new curricula, the consequences of new health service priorities, an increase in the number of medical students, and the implications of the report from the National Committee of Enquiry in Higher Education, chaired by Sir Ron Dearing.¹

The most recent recommendations of the General Medical Council's education committee were intended to promote an approach to undergraduate medical education and to give a perspective on its aims, which differ substantially from those of traditional curricula.² Although the 11 principal recommendations are now well known, at the core is the promotion of the merits of learner centred and problem oriented approaches to learning, which aim to produce doctors better equipped with the adult learning skills necessary for them to adapt to, and meet, the changing needs of the community they serve.

The pedagogic shift from the traditional teacher centred approach, in which the emphasis is on teachers and what they teach, to a student centred approach, in which the emphasis is on students and what they learn, requires a fundamental change in the role of the educator from that of didactic teacher to that of a facilitator of learning.³

Our aim was to explore some of the student centred approaches to learning being implemented and the underlying educational theory and concepts on which they are based.

Summary points

- Self directed learning involves the learner as an active participant and encourages the development of a deep approach to learning
- Self directed learning is the educational strategy most likely to produce doctors prepared for lifelong learning and able to meet the changing needs of their patients

- Problem based learning and guided discovery learning are two instructional strategies that exploit the merits of a learner centred approach
- Problem based learning is gaining in popularity as both an educational method and curricular philosophy particularly suited to professional education
- In guided discovery learning a mixed economy approach is used in which the best of traditional methods are combined with more innovative approaches to provide a learning environment conducive to deep learning
- The move to learner centred strategies has major implications for faculty development at all levels from the institutional to the individual

Methods

Often no clear distinction is made between the aims and objectives of educational provision and the strategies adopted for their achievement; educational concepts may become ends in themselves, and the overall aim becomes lost. Student centred learning, self directed learning, problem based learning, development of problem based learning, guided discovery learning and study guides, the changing role of teachers, conclusion, references.

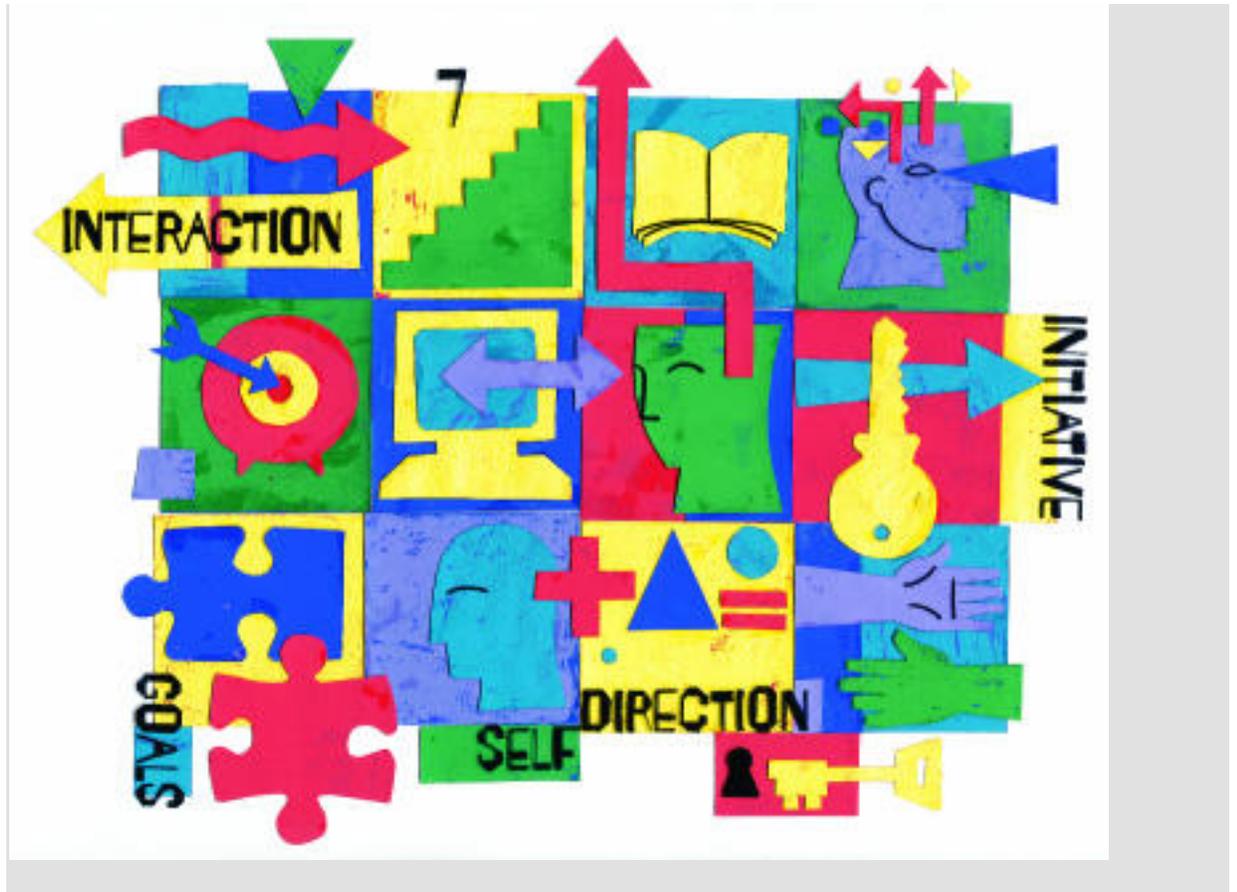
Often no clear distinction is made between the aims and objectives of educational provision and the strategies adopted for their achievement; educational concepts may become ends in themselves, and the overall aim becomes lost. Student centred learning, self directed learning, problem based learning are descriptions often applied without full appreciation of the process or concepts on which they are based or an understanding of what is being achieved in practice. It has been suggested that all too often these descriptions are applied inappropriately and may sometimes be little more than a thin veneer to an otherwise unchanged curricular process.³

In selecting references for this review we have tried to provide a balanced, evidence based perspective from key primary sources and major authoritative reviews. The reviews may also provide access to more detailed information.

Self directed and deep learning

Self directed learning is when students take the initiative for their own learning: diagnosing needs, formulating goals, identifying resources, implementing appropriate activities, and evaluating outcomes. The key features of self directed learning (box 1) concord with the principles of adult learning⁴ (box 2) and the findings of research in cognitive psychology.⁵

Self directed learning is an active process. It encourages the adoption of the deep approach to learning first described in the mid 1970s. Deep learning, as opposed to surface learning, is an active search for understanding. Surface learning merely encourages students to reproduce what has been learnt.⁶



Research has identified the student's approach to learning—surface or deep—as the crucial factor in determining the quality of learning outcomes.⁷ A surface approach is common in courses that have a heavy workload, an excessive amount of course material, little opportunity to pursue subjects in depth, little choice over study topics, and an assessment system that provokes anxiety and mainly rewards reproduction of factual information. Courses that foster deep learning, however, commonly provide a context in which students are motivated by the need to know, active learning and exploratory work in small groups, and a well structured knowledge base.

Self directed learning is suggested as the most efficacious approach for the continuum of medical education, particularly when learning is based on experience, and new knowledge and understanding can be integrated into the personal and professional context of the individual.⁸

Strategies that have been developed as self directed learning include:

- Problem based learning
- Discovery learning
- Task based learning
- Experiential and reflective learning
- Portfolio based learning
- Small group, self instructional, and project based learning

- Peer evaluation and learning contracts.⁹⁻¹²

op_ methods_ self directed and deep learning_ problem based learning_ development of problem based learning_ guided discovery learning_ and study guides_ the changing role of teachers_ conclusion_ references_

Problem based learning

Problem based learning has been described as one of the most significant developments in professional education.¹³ It has been endorsed by bodies such as the World Health Organisation and is increasingly proposed as a solution to both the ills of medical education and new challenges such as clinical governance.¹⁴

There is no universal definition for problem based learning, and a “conceptual fog” prevails regarding both its philosophy and practice—the term is used, for example, to describe both an educational method and a curricular philosophy.¹⁵ This has important implications for evaluation research, and comparisons of programmes.¹⁶ However, problem based learning is generally understood to mean an instructional strategy in which students identify issues raised by specific problems to help develop understanding about underlying concepts and principles. The focus is usually a written problem comprising “phenomena that need explanation.”¹⁷ New knowledge and understanding arise through working on the problem rather than in the traditional approaches in which the new knowledge is a prerequisite for working on the problem. A better term for this approach might be “problem first learning.”¹⁵

Problem based learning is usually focused on small groups with a tutor and follows a particular sequence such as the Maastricht “seven jump”—named after a Dutch children's song (box 3). These steps enable learners to identify their needs in understanding a problem and, once these are identified, to pursue their goals—usually independently—and finally to join forces once more to synthesise their findings.^{18,19}

op_ methods_ self directed and deep learning_ problem based learning_ development of problem based learning_ guided discovery learning_ and study guides_ the changing role of teachers_ conclusion_ references_

Development of problem based learning

The application of problem based approaches in education is not new. In 1889 a method known as “multiple working hypotheses” was advocated.²⁰ Dewey, one of the educational theorists of the early part of this century, recommended that students should be presented with real life problems and then helped to discover the information required to solve them. Later, other workers showed that giving students ready made solutions for problems was “manifestly ineffective” for learning.²¹ In the late 1960s, McMaster medical school in Ontario pioneered the first completely problem based medical curriculum, with Maastricht following in 1974 as the first in Europe. Around 150 medical schools worldwide (some 10% of the total) have adopted problem based curriculums; in the United Kingdom, Manchester, Glasgow, and Liverpool have taken this route, with several other schools including St Bartholomew's, St George's, Birmingham, and Newcastle introducing elements of problem based learning.

Problem based learning can be seen as “a systematic attempt to apply findings of cognitive psychology to educational practice.”¹⁷ Relevant areas include: activation of prior knowledge (a major determinant of what can be learnt); learning in context (enhancing transfer of knowledge); elaboration of knowledge (enhancing subsequent retrieval); and fostering of competence by an inquisitive style of learning.²² Problem based learning fits with what is known about the development of clinical reasoning and the process by which so called “illness scripts”—cognitive structures describing the features of “prototypical” patients—are acquired.²³ There is a

evidence, however, that generic problem solving skills are enhanced through problem based learning.²⁴

Several authors have reviewed the evidence for and against problem based learning,^{25–28} and in spite of semantic difficulties, different study designs, confounding variables, and different interpretations of the evidence, several benefits have been identified (box 4). Some of the benefits may be indiscernible from those related to other concurrent curricular innovation. Maudsley, however, considers problem based learning to have survived unprecedented scrutiny.¹⁵ Several disadvantages have also been identified including the costs for starting up and maintenance,²⁷ excessive demands on staff time,²⁹ increased stress on both students and staff, relative inefficiency,²⁵ reduced acquisition of knowledge of basic sciences,²⁶ and implementation difficulties when class sizes are large or where there is a broad lack of enthusiasm for the approach.²⁵ Finucane and colleagues provide a balanced consideration of the advantages and disadvantages of adopting a curriculum for problem based learning.²⁸ There is as yet no evidence that graduates of problem based programmes make better—or worse—doctors in the long term.

Guided discovery learning and study guides

In reviewing and revising their undergraduate curriculums, many medical schools with large class sizes have chosen to introduce revised teaching and learning strategies that are more learner centred but which attempt to combine the best of traditional modes with more innovative methods.

The better examples of this mixed approach, such as that adopted by Newcastle and Dundee, may be described as a form of guided discovery learning. The key features are learning how to learn through the process of discovery and the exploration of knowledge, coupled with the responsibility of the learner to master the content needed for understanding (box 5). Usually within the structure of an integrated, system based curriculum design, the learning frame and desired learning outcomes for each theme are introduced using didactic plenary teaching methods, which are extended by self directed learning and reinforced through problem oriented task based, work related experiences, and small group discussion. Relevance and motivation context is provided by ensuring that each theme focuses on real problems, and the overall learning process is facilitated through the use of study guides and logbooks.

In this context a study guide is an aid designed to assist students with their learning. The study guide is the main tool by which staff support self directed study—guiding the learners while at the same time ensuring active involvement in the management of their own learning.³¹ A good study guide indicates what should be learned by specifying learning outcomes, helps students to set their own objectives and plan their learning, identifies appropriate learning resources and advises on their use, and provides opportunities for students to assess their own competence. Properly used, study guides improve communication and can provide guidance like a good tutor but without the need for excessive staff-student contact. Interactive electronic versions of study guides on the world wide web have also been developed, usually in the form of notes.³² The internet enables both students and staff to access study guides, and as part of a wider learning environment, the study guides may be used to help students based at sites distant from the medical school.³³

The changing role of teachers

methods_
self directed and deep
learning_
problem based learning_
development of problem
based learning_
guided discovery learning
and study guides_
The changing role of
teachers_
conclusion_
references_

Learner centred approaches challenge the traditional view of the teacher as the person who determines what, when, and how learners will learn, with didactic teaching as the predominant method. Creating an environment in which students can learn effectively and efficiently becomes the new prerequisite, demanding not only that teachers are experts in their fields but also—arguably more importantly—that they understand how people learn.³⁴

This has major implications in terms of staff development, with the recognition that changing curriculum and keeping it going are unlikely to be effective if teachers are not able to take on new roles. Such development needs to take place at all levels from the institutional to the individual.³⁵ Barriers include the perennial problems of conflict with service provision and the “research first” culture that prevails in most medical schools, and the underresourcing of faculty development.

Conclusion

It is for each medical school to determine its own educational aim, analyse the context in which it operates, identify the factors that constrain its operation, and choose the curricular model and teaching and learning methods that suit it best. Provided it is evidence based, diversity of approach is a good thing and to be encouraged. Whatever the detail, a strategy that promotes self directed learning is likely to be the most effective. There is still, however, a need for rigorous evaluation before one approach can be deemed to produce better doctors than another.³⁶

Footnotes

Competing interests: None declared.

References

1. Report of the National Committee of Enquiry into Higher Education. *Higher education in the learning society*. London: Stationery Office; 1997.
2. General Medical Council. *Tomorrow's doctors. Recommendations on undergraduate medical education*. London: GMC; 1993.
3. Harden, RM.; Sowden, S.; Dunn, WR. *Some educational strategies in curriculum development: the SPICES model*. Dundee: Association for the Study of Medical Education; 1984. (Medical education booklet No 18.).
4. Knowles, M. *The adult learner: a neglected species*. Houston, TX: Gulf Publishing; 1990.
5. Regehr G, Norman GR. Issues in cognitive psychology: implications for professional education. *Acad Med*. 1996;71:98:1001. [[PubMed](#)]
6. Coles, C. How students learn: the process of learning. In: Jolly B, Rees L., editors. *Medical education in the millennium*. Oxford: Oxford University Press; 1998. pp. 63–82.
7. Report of the Council for National Academic Awards Improving Student Learning Project. *Improving student learning*. Oxford: Oxford Centre for Staff Development; 1992.
8. Chastonay P, Brenner E, Peel S, Guilbert J-J. The need for more efficacy and relevance in medical education. *Med Educ*. 1996;30:235–238. [[PubMed](#)]
9. Kolb, DA. *Experiential learning: experience as a source of learning and development*. Englewood Cliffs, NJ: Prentice Hall; 1984.
- 10.

op_
methods_
self directed and deep
learning_
problem based learning_
development of problem
based learning_
guided discovery learning
and study guides_
The changing role of
teachers_
conclusion_
references_

- Towle A, Cottrell D. Self directed learning. *Arch Dis Child*. 1996;74:357–359. [[PubMed](#)]
11.
Harden, RM.; Laidlaw, JM.; Ker, JS.; Mitchell, HE. *Task based learning: an educational strategy for undergraduate postgraduate and continuing medical education*. Dundee: Association for Medical Education in Europe; 1996. (Medical education booklet No 7.).
12.
Brown, G.; Atkins, M. *Effective teaching in higher education*. London: Methuen; 1988.
13.
Boud D, Feletti G. , editors. *The challenge of problem-based learning*. London: Kogan Page; 1991.
14.
Scally G, Donaldson LJ. Clinical governance and the drive for quality improvement in the new NHS in England. *BMJ* 1998;317:61–65. [[PubMed](#)]
15.
Maudsley G. Do we all mean the same thing by ‘problem-based learning?’ A review of the concepts and a formulation of the ground rules. *Acad Med*. 1999;74:178–185. [[PubMed](#)]
16.
Lloyd-Jones G, Margetson D, Bligh JG. Problem-based learning: a coat of many colours. *Med Educ*. 1998;32:492–499. [[PubMed](#)]
17.
Dolmans D, Schmidt H. The advantages of problem-based curricula. *Postgrad Med*. 1996;72:535–538.
18.
Barrows HS. Problem-based, self-directed learning. *JAMA*. 1983;250:3077–3080. [[PubMed](#)]
19.
Schmidt HG. Problem-based learning: rationale and description. *Med Educ*. 1983;17:11–16. [[PubMed](#)]
20.
Chamberlin TC. The method of multiple working hypotheses. *Science*. 1965;148:745–749.
21.
Salih, MA. History of problem-based medical education. In: de Grave WS, Moust JHC, Schmidt HG. , editors. *Tutorials in problem-based learning*. Vol. 2. Maastricht: Network of Community-Oriented Educational Institutions for the Health Sciences; 1985.
22.
Norman GR, Schmidt HG. The psychological basis of problem-based learning: a review of the evidence. *Acad Med* 1992;67:657–665. [[PubMed](#)]
23.
Schmidt HG, Norman GR, Boshuizen HPA. A cognitive perspective on medical expertise: theory and implications. *Acad Med*. 1990;65:611–621. [[PubMed](#)]
24.
Norman GR. Problem-solving skills, solving problems and problem-based learning. *Med Educ*. 1988;22:279–284. [[PubMed](#)]
25.
Albanese MA, Mitchell S. Problem-based learning: a review of literature on its outcomes and implementation issues. *Acad Med*. 1993;68:52–81. [[PubMed](#)]
26.
Vernon DTA, Blake RL. Does problem-based learning work? A meta-analysis of evaluative research. *Acad Med* 1993;68:550–563. [[PubMed](#)]
27.
Berkson L. Problem-based learning: have the expectations been met? *Acad Med*. 1993;68(suppl):79–88S.
28.
Finucane PM, Johnson SM, Prideaux DJ. Problem-based learning: its rationale and efficacy. *Med J Aust*. 1998;168:444–448. [[PubMed](#)]
29.
Des Marchais JE. A student-centred, problem-based curriculum: 5 years’ experience. *Can Med Assoc J*. 1993;148:156–157. [[PubMed](#)]
30.
Harden RM, Davis MH, Crosby JR. The new Dundee medical curriculum: a whole that is greater than the sum of its parts. *Med Educ*. 1997;31:264–271. [[PubMed](#)]
31.
Holsgrove GJ, Lanphear JH, Ledingham IMcA. Study guides: an essential student learning tool in an integrated curriculum. *Med Teacher*. 1998;20:99–103.

32.
Skelly, G.; Quentin-Baxter, M. *Proceedings of CTICM computers in medicine conference*. Bristol: CTICM; 1995. Implementation and management of on-line curriculum study guides: the challenges of organisational change; pp. 65–73.
33.
Jordan, RK.; Hammond, G.; Quentin-Baxter, M. *Proceedings of CTICM computers in medicine conference*. Bristol: CTICM; 1997. Networked learning processes: strategic issues and intranet/internet support for the delivery of medical education; pp. 19–30.
34.
Irby DM. What clinical teachers in medicine need to know. *Acad Med*. 1994;69:333–342. [[PubMed](#)]
35.
Brew A. , editor. *Directions in staff development*. Buckingham and Bristol: Society for Research into Higher Education and Open University; 1995.
36.
Woodward CA. Problem-based learning in medical education: developing a research agenda. *Adv Health Sci Edu* 1996;1:83–94.

[Write to PMC](#) | [PMC Home](#) | [PubMed](#)
[NCBI](#) | [U.S. National Library of Medicine](#)
[NIH](#) | [Department of Health and Human Services](#)
[Privacy Policy](#) | [Disclaimer](#) | [Freedom of Information Act](#)

▶ On-going projects

▶ Students' learning approach and knowledge acquisition

- Development of students' learning approach (Nu Viet Vu)

 Vu NV, Van der Vleuten C, and Lacombe G. *Medical Students' Learning Processes: A Comparative and Longitudinal Study*. *Academic Medicine*, 73,S25-S27, 1998.

- Students' development and acquisition of basic and clinical knowledge (Nu Viet Vu, Anouk Berger, Mathieu R Nendaz, Florence Demaurex, Arnaud Perrier, Anne Baroffio)

 Grant from the Swiss Federal Office of Public Health and the Swiss Federal Office of Education and Sciences

▶ Clinical competence evaluation

- Students' history and physical examination skills: a measure of its development through the use of formative assessments (Philippe Huber & Nu Viet Vu)
- Students' history and physical examination skills: an assessment of the effectiveness of the training sessions with student monitors (Philippe Huber, Yves Grandjean, Maria Bianchi, Henri Bounameaux, Nu Viet Vu)
- Evaluation of clinical competence in an Internal medicine clerkship: a comparative study of examination formats (Arnaud Perrier)

📄 Nendaz MR, Perrier A, Simonet ML, Huber P, Junod A, Vu NV. Appraisal of clinical competence during clerkships: how knowledgeable in curriculum and assessment development should a physician-examiner be? *Acad Med.* 2001;76(10 Suppl):S99-101.

- Development and Validation of a National Competency Assessment in Medicine” (Co-Principal Investigator: Ralph Bloch, Institut für Aus-, Weiter- und Fortbildung, University of Bern Faculty of Medicine and Nu Viet Vu, UDREM, Université de Genève Faculté de Médecine)

📄 **Projet** financé par:
- Federal Office for Health
- Helmut Horten Foundation - 2002-2004

▶ **Assessments in Problem-Based Learning (PBL)**

📄 Nendaz, MR., Tekian, A. *Assessment in problem-based learning undergraduate medical curricula: an analysis based on a literature review.*
Teaching and Learning in Medicine, 1999, 11, 232-243

📄 Des Marchais, J.E., Vu, N.V., and Black, R. *Problem-analysis Questions for Assessment in Problem-Based Learning: Development and Difficulties.*
Education for Health, 10, 79-89, 1997.

📄 DesMarchais, J.E., Black, R, and Vu N.V. *L’Evaluation des Apprentissages des Etudiants.*
In J.E. DesMarchais and Collaborators (Eds.) *Apprendre à Devenir Médecin: Bilan d’un Changement Pédagogique Centré sur l’Etudiant.* Université de Sherbrooke, Québec, Canada, pp 151-184, 1996.

📄 DesMarchais, J.E., and Vu, N.V. *Developing and Evaluating the Student Assessment System in the Preclinical Problem-based Curriculum at Sherbrooke.*
Academic Medicine, 71 (3), 274-283, 1996

📄 DesMarchais, J.E., Dumais, J.P., and Vu, N.V. *An Attempt at Measuring Student Ability to Analyze Problems in the Sherbrooke Problem-Based Curriculum: a Preliminary Study.*
In P.A.J. Bouhuijs, H.G. Schmidt, and H.J.M. Van Beckel (Eds.). *Problem-Based Learning as an Educational Strategy.* Maastricht, The Netherlands: Network Publications, 1994.

▶ Clinical Reasoning

- Determinants of a relevant clinical inquiry (Mathieu Nendaz, Arnaud Perrier, Martine Louis Simonet, Alain Junod)
- Clinical reasoning teaching approaches

 Nendaz MR, Gut AM, Perrier A, Reuille O, Louis-Simonet M, Junod AF, Vu NV. *Degree of concurrency among experts in data collection and diagnostic hypothesis generation during clinical encounters*. Med Educ 2004; 38:25-31.

 Nendaz MR, Gut AM, Perrier A, Louis-Simonet M, Reuille O, Junod AF, Vu NV. *Common strategies in clinical data collection displayed by experienced clinician-teachers in internal medicine*. Accepted in Med Teach.

 Nendaz MR, Bordage G. *Promoting diagnostic problem representation*. Med Educ. 2002;36(8):760-6

 Nendaz, MR., Raetz, MA., Junod, AF., Vu, NV. *Use of different case formats in teaching diagnostic skills: clinical vignettes or chief complaints ?*
Adv. Health Sciences Education, 2000, 5, 3-10.

 Nendaz, M, Junod, A, Vu, NV, and Bordage, G. *Eliciting and Displaying Diagnostic Reasoning During Educational Rounds in Internal Medicine: Who learns from Whom?*
Academic Medicine, 73, S54-56, 1998

- Impact of teaching on clinical data collection and patient management strategies. (Principal Investigator: Mathieu Nendaz, Co-Investigators: Nu V. Vu et Arnaud Perrier)

 **Projet financé par:**
- Swiss National Science Foundation (Grant No. 3200B0-102265/1). -
2003-2006 (funded)
- Elie Safra Foundation.- 2003-2006 (funded)

▶ Medical decision

 Elstein AS, Schwartz A, Nendaz M. *Medical decision making*. In G. Norman, C. van der Vleuten, D. Dolmans (eds.) International Handbook of Medical Education. Boston, Kluwer, 2002.

Simulated/standardized patients

- Agreement on checklist recording : effects of item characteristics and examiner's experience in assessment (Philippe Huber et Anne Baroffio).
- Evaluation of clinical competence with standardized patient-based examinations

Huber Ph. and Vu N.V. *Acquisition of basic clinical skills: Impact of a structured formative program with standardized patients.*
On going study

Demaurex F., Huber Ph., Vu N.V. *Peer physical examination : a nightmare or an enjoyable part of the medical studies ?*
On going study

Baroffio A., Huber Ph., Layat C., Herrmann F., Nu Vu N.V. *Effect of item and raters' characteristics on checklist recording of the physical examination.*
On going study

Baroffio A., Huber Ph., Layat C., Nendaz M. *Concordance on Checklist Recording: Comparison of standardized patients and multiple examiners.*
On going study

Martine-Louis-Simonet, Huber Ph., Demaurex F. *Acquisition of doctor-patient relationship skills: impact of a structured program with standardized patients.*
On going study

Williams, RG., McLaughlin, M., Eulenber, B., Hurm, M., Nendaz, MR. *The patient findings questionnaire: one solution to an important standardized patient examination problem.*
Academic Medicine, 1999, 74,1118-24

Colliver, J.A., Markwell, S.J., Travis, T.A., Schrage, J. L., and Vu, N.V. *Sequential Testing with a Standardized Patient Examination: a ROC Analysis of the Effects of Case Total Correlations and Difficulty Levels of Screening test cases* (pp. 170-173). Proceedings of the Sixth Ottawa Conference on Medical Education. University of Toronto Bookstore, Customs Publishing, 1995.

MacRae, H.M., Vu, N.V., Graham B., Word-Sims, M., Colliver, J.A., and Robbs, R. *Comparing Checklists and Databases to Physicians' Ratings as Measures of Students' History and Physical Examination Skills.*
Academic Medicine, 70 (4), 313-317, 1995.

📄 Colliver, J.A., Marcy, M.L., Vu, N.V., Steward, D.E., and Robbs, R.S. *The Effects of Using Multiple Standardized patients to Rate Interpersonal and Communication Skills.* Teaching and Learning in Medicine, 6 (1), 45-48, 1994.

📄 Vu, N.V., Henkle, J., and Colliver., J.A. *Consistency of Pass - Fail Decisions made with Clinical Clerkship Ratings and Standardized Patients Exam Score.* Academic Medicine, 69, S40-S42, 1994.

📄 Vu, N.V., Barnhart, A., Colliver, J.A., Henkle, J.Q., Hodgson, K., Marcy, M.L., Schrage, J.P., and Travis, T.A. *Further Evidence of Construct Validity of Standardized Patient-Based Performance Examinations.* Teaching and Learning in Medicine, 6 (4), 255-259, 1994.

📄 Vu, N.V., Barrows, H.S. *Use of Standardized Patients in Clinical Performance Assessments: Recent Developments and Measurement Findings.* Educational Researcher. 23 (3), 23-30, March, 1994

- Development and Validation of a National Competency Assessment in Medicine” (Co-Principal Investigator: Ralph Bloch, Institut für Aus-, Weiter- und Fortbildung, University of Bern Faculty of Medicine and Nu Viet Vu, UDREM, Université de Genève Faculté de Médecine)

📄 **Projet financé par:**
- Federal Office for Health
- Helmut Horten Foundation - 2002-2004

[top](#)

▶ Faculty development

- A problem-based-learning faculty development workshop : effectiveness on tutors’ teaching skills and content knowledge

📄 Baroffio, A., Kayser, B., Vermeulen, B., Jacquet, J. et Vu, N.V. *Improvement of tutorial skills: an effect of workshops or experience ?* Academic Medicine (1999), 74(10), S75-S78

- Assessment of tutors’ skills on students’ learning (Anne Baroffio & Nu Viet Vu)

▶ Program evaluation

- Evaluation of a longitudinal undergraduate Geriatrics program (Philippe Huber et al.)

 Huber, P. *Integration of Geriatrics in a new Problem-Based Undergraduate Curriculum at the Medical School of Geneva*, In Michel J-P and Hof PR, (eds) *Management of Aging : The University of Geneva Experience*, Basel, Karger S AG *Interdisciplinary Topics in Gerontology*, 1999, 30, 217-223.

- Evaluation of a comprehensive community-based health and medicine apprenticeship program (Philippe Chastonay et al.)

 Chastonay, P., Vu, NV., Stalder, H. *Enseignement des dimensions communautaires dans le cadre de la réforme des études de médecine de l'université de Genève*. *Bulletin des médecins suisses*, 2000, 81, 875 - 879

- Evaluation of a longitudinal community-based primary care program (François Mottu, Hans Stalder, Peter Meehl & Nu V. Vu)
- Evaluation of the integrated Emergency medicine clerkship (Bernard Vermeulen)
- The evaluation of the "Integration" Unit: a validation of its learning objectives and students' transition from a pathophysiology- to a signs and symptoms-based clinical reasoning (Elisabeth van Gessel, Ben Vermeulen, Alain Junod, Mathieu Nendaz & Nu Viet Vu)
- Linkages between undergraduate training and clinical practice: A longitudinal outcome evaluation study (Nu Viet Vu & Jean-François Balavoine)
- Linkages between undergraduate and residency training: a longitudinal outcome evaluation study". (Principal Investigator: Nu Viet Vu)

 **Projet financé par:**
 - University of Geneva Faculty of Medicine Priority Project.- 2003-2006 (funded)
 - Louis Jeantet Foundation - 2003 -2006 (funded)
 - Ernst and Lucie Schmidheiny Foundation - 2003-2004 (funded)
 - Société académique de Genève - 2003-2004 (funded)
 - Carlos and Elsie de Reuter - 2003-2006 (funded)

NTIC and medical informatics

- Computers for Health (Bengt Kayser, Antoine Geissbuehler et al.)

 Grant from the Swiss Virtual Campus

- Online public health teaching" (Bengt Kayser, Philippe Chastonay et al.)

 Grant from the "Fonds Francophone des Inforoutes"

- The uses and integration of new technologies in the curriculum, for collaborative distance learning, and for teaching of medical informatics: A study of their effectiveness (Bengt Kayser)
- Learning by a guided discovery: development of an activity learning environment to acquire declarative knowledge in virology

 Scherly, D., Roux, L. and Dillenbourg, P. *Evaluation of hypertext in an activity learning environment*
Journal of Computer Assisted Learning, 2000, 16, 125-136

▶ Curriculum in Geriatric

- Medical education in geriatrics: a need assessment study of private and hospital-based Swiss physicians Principal investigator: Dr P Huber. Co-investigators: Dr F Herrmann , Dr Grundler B, Prof JP Michel, and the medical society of Geneva (Dr C Aubert), Vaud (Dr D Laufer), Wallis(Dr G Loretan). on-going study
- Attitudes and knowledge acquisition in geriatrics: comparison between a traditional curriculum and a problem-based learning curriculum. Principal investigator: Dr Ph. Huber. Co-investigators: Dr F. Herrmann, Pr J.-P. Michel, Pr N.V. Vu. on-going study

▶ Clinical Competences Teaching

- Acquisition of basic clinical skills: Impact of a structured formative program with student-monitors. Investigators: Dr Ph. Huber, Dr R. Ogier, Dr F. Lador, Pr N.V. Vu.
On going study. More information [here](#)

[▲Top](#) | [▶Publications](#)

created Monday, January 31, 2000, [ab](#), [ds](#)
modified 05/04/2006

Link to research in computer based learning:

http://edumed.unige.ch/udrem/english/research/research.html#clin_comp#clin_comp

The Legal Profession

American Bar Association Standard 306: Distance Education

Currently, there are not any law schools approved by the ABA that provide a J.D. degree completely via correspondence study. In fact, the ABA's general policy under Standard 304(f) states that "a law school shall not grant credit for study by correspondence." However, there are exceptions to the general rule. Further, you should be aware of the fact that earning an education completely via correspondence study may drastically limit your ability to sit for the bar in many states.

<http://www.abanet.org/legaled/distanceeducation/distance.html>

NY State Regents Offer Distance Learning for Nursing Degrees.

The issue of medical subjects being taught and receiving recognition has been long established in New York State nursing. Since the concept was established a variety of other nursing programs have arisen. Some of these are work-study programs.

Excelsior College, formally known as Regent College, was founded in 1971 and has over one-hundred thousand graduates operating in the workforce worldwide. At present, Excelsior College operates by means of a distance education program in which one may work to obtain a higher degree. One of their four schools is Nursing. Adults opt to enroll in a distance learning program as a method by which to further their education, advance their potential in the workforce, and improve their economic status. This program is extremely flexible. One chooses the courses and for-credit exams that best fit one's chosen degree program, learning style, budget, and schedule. Courses are offered in three variations: a virtual classroom known as WebCT, a web-based course term, or an instructor-led CD-ROM.

In a recent study in 2004 of over one-thousand one-hundred middle-aged adults with a high-school education ranging in age from mid-twenties to mid-fifties, seven percent were currently enrolled in courses to further their degree, seventeen percent intended to take college courses, and fifty percent expressed interest in obtaining a college education by means of a distance learning program. Excelsior College offers this opportunity for one to earn a higher degree by offering much flexibility and the added luxury of allowing one to study from their own home.

For details on this program use the following url;

https://www.excelsior.edu/portal/page?_pageid=57,118526&_dad=portal&_schema=PORTAL

Advanced Standing towards M.D. degree

Many allied health sciences grant degrees via distance learning. When credit is granted towards the M.D. degree on an allied health science based on distance learning new concerns arise. These will be dealt with in more detail when the Advisory Council reviews Issue 4 "Develop Guidelines for recognition of transfer credits."

The International University of the Health Sciences School of Medicine in St. Kitts has announced that effective August 28, 2001, students at the New York College of Podiatric Medicine will be eligible to enroll in a special program, leading to the degree of Doctor of Medicine (M.D), which would be received subsequent to their receiving the DPM degree from NYCPM

<http://www.network54.com/Forum/23927/message/995320080/DPM-MD>

Windsor University School of Medicine

*<http://windsor.edu/HCP%20Program.htm>

<http://www.mentorsinmedicine.com/> Awarding credits towards MD degree to Physician Assistants, Nurse Practitioners, Physical Therapists, Chiropractors, Pharmacists, Podiatrists and Dentists?

Medical Schools Providing Distance Learning Credit

I. University of Health Sciences in Antigua *<http://www.uhsa.ag/>

Reports on line clinical. <http://www.uhsa.ag/online/>

II. Vanuatu School of Medicine <http://vcmagent.medical-entrance.edu.au/>

1.1 Authority to Operate

VCM operates under a charter executed by the Government of the Republic of Vanuatu. VCM is an autonomous statutory corporation operating in partnership with the Government of Vanuatu, represented by the Prime Minister, the head of government.

The Prime Minister has accredited VCM, which has been authorized to grant the degrees of Bachelor of Medical Sciences in Primary Care [BmedSci(PCP)], Doctor of Medicine (MD), and a Masters of Medical Science (MMedSci). The Vanuatu College of Medicine is listed in the World Health Organization World Directory of Medical Schools and in the International Medical Education Directory (IMED).

1.2 Accreditation

Accreditation of medical schools is a national responsibility. While international accreditation would be highly desirable, there is no body that has the authority to do so. Instead two organizations have created databases of schools that are accredited based on a request for listing by the Minister for Health (or sometimes the head of government). The two organizations that are generally recognized are:

1. World Health Organization (WHO): Department of Health Services Delivery^[1]
2. Foundation for Advancement of International Medical Education Research (FAIMER): is an offshoot of the Educational Council for Foreign Medical Graduates (ECFMG) and publishes the International Medical Education Directory (IMED)

There are criteria for the documentation of quality related to the accreditation process. These were developed by the World Federation for Medical Education (WFME). They include “must have” and “should have” criteria. VCM has set up an Academic Board to monitor these quality criteria. We are using a Total Quality Engineering approach to the process, including a software program (WebHoshin). The criteria are listed in Appendix C. http://vcmagent.medical-entrance.edu.au/VCM_Handbook_0608.jsp#_Toc125515697

Frank Stitt was reported as the founder of Vanuatu. Student applications are referred to Icarus College, a prep course for entry exam. Web site lists recommendations for Icarus College,

<http://www.superkeeneye.edu.au/cms/endorsement/viewEndorsement.do?categoryTitle=Consultants%20Say&catId=24> It claims;

Prof Frank W. Stitt MBBS(Syd) FRACP.

Frank is a Clinical Professor at University of Miami School of Medicine and Epidemiology. He was formerly Vice-Chancellor and Professor of Medicine, International University of the Health Sciences.

What Frank says about the course:

I reviewed two courses related to teaching core skills for actual or prospective health care workers. These were (i) Logical reasoning and problem-solving and (ii) Interaction skills, related to personal development, communication skills, and professional development. The dimensions of the second course are critical and include: honesty, empathy, conflict resolution etc. Both of these ICARUS College SUPERPREP courses are highly relevant to the UMAT test and today's universe of medical education, where the skills they address are neglected in most undergraduate and post-graduate curricula. The courses are very well designed, interleaving instructional material, example assessments, and trial assessments. This is a highly effective method of learning, and is particularly suitable for a distributed learning environment. I believe that these courses would be valuable for entering medical students, or even for post-graduate education. The problem-solving course would greatly enhance the effectiveness of a problem-based learning (PBL) curriculum.

Another

URL:

<http://www.superkeeneye.edu.au/cms/news/prepareNewsItem.do?newsId=71> , apparently states Icarus College is now the software owner of the medical courses formerly owned by Vanuatu.

“Having trouble getting through your Med studies?”

Author:

Dave

Date: 08/04/2006

ICARUS College has secured the exclusive global rights to bring you an entire leading edge online medical course from day one right up to the end of your clinical years and postgraduate courses as well. Four gigabytes of leading edge learning material covering "the lot" would be a reserved statement says ICARUS College. All resources will be available to help all global English speaking medical students by late September 2006. Our heartfelt thanks to Professor Frank W Stitt MBBS (Syd) FRACP a former lecturer at University of Sydney and Professor of Medicine and Epidemiology, University of Miami School of Medicine Founder and Vice-Chancellor, International University of the Health Sciences, St Kitts and Nevis, Founder and Vice-Chancellor, Oceania University of Medicine, Samoa Co-author "Universities without walls: new paradigms in medical education", invited paper, British Medical Journal Millennium Edition. Medical-entrance will now have the benefit of his vast medical experiences in both academic and clinical teaching and course structuring. Just to encourage those many students out there who wish to benefit from resources beyond compare: Read what Professor Mellis, former Dean of the new medical course at Bond private university and current Dean of Medical Education at University of Sydney had to say. 'I have had the opportunity to access Online Medical Education and see this type of resource as the future of medical education worldwide. ' "

III. International University of Health Science, St Kitts

Basic science done by Distance Learning;

http://www.iuhs.edu/online_campus.htm.

Apparently has clinical sites and requires students to be physically present for clinical sciences; http://www.iuhs.edu/affiliate_campuses.htm.

Claims it is accredited. and students eligible to sit for USMLE;

<http://www.iuhs.edu/accreditation.htm>.

"Affiliated Clinical Hospitals

The Clinical Affairs Office will provide students with assistance in securing clinical rotations in affiliate hospitals in St. Kitts, Canada, United States, England, Australia, India, and Mexico. IUHS arranges liability insurance for all clinical rotations."

<http://www.iuhs.edu/clinicals.htm>.

IV. Oceania University of Medicine <http://www.e-oum.net/index.html>

E-learning. Study in Samoa first 8 week term or in Harcum College in Bryn Maur, PA.

Mentors for Distance Learning programs and clinical rotations.

Taffy Gould, Chair, Dean Taffy.gould@Oceaniamed.org

Oceania catalogue, page 3 states, "Oceania University of Medicine provides a high-quality medical education with the use of modern, e-learning techniques. E-Medical Education, LLC (eMedEd), an international software and health science education company, operates OUM through a public/private partnership with the Samoa."

This is verified at http://www.aln.org/aboutus/location_members_list.asp?loc=NONUS wherein Oceania University of Medicine, Victoria – Australia is listed as a Premium Member of the Sloan Consortium. Teaching methods are detailed on the above website.

OUM is eligible for ECFMG - USMLE administered exams and ECFMG certificate to enter graduate training programs in the United States. On page 27 of the catalogue on the website, Paragraph 2 states, “OMU has surveyed all 50 US states and many have indicated OUM meets their requirements. *****a few States do not recognize distance learning in medical education. We are working with those states. The school recommends checking with their state licensing board.”

‘Many OMU students continue working full time during the first ten modules, committing approximately 40 hours per week reviewing cases, studying and meeting with his or her mentor’ catalogue page 28, Paragraph 1.

V. Point I. An accreditor, located in the US;

Distance Education and Training Council

<http://www.detc.org/>

<http://www.detc.org/SubjectsTaught.html#m>

<http://www.detc.org/degree.html#monash>

Point II. Recognized by the U.S. Dept. Ed.

Degree Granting Institutions

(Note: Degree granting institutions are also postsecondary institutions.) The DETC Accrediting Commission is recognized by the [Council for Higher Education Accreditation \(CHEA\)](#) and by the [U.S. Department of Education](#) for postsecondary program purposes only. Since the U.S. Secretary’s authority is statutorily limited to postsecondary institutions in the United States, this federal recognition encompasses only DETC accreditation in this area.

The following institutions offer a variety of degree programs, as well as some non-degree courses/programs and certificate/diploma programs (see the individual descriptions). For more information about these courses/programs, please contact the institutions directly or visit their web sites.

Point III Issues medical degrees in other countries

Monash
Wellington

University
Road

Clayton, Australia		Victoria		3800
Phone:	+61-3-9902-6000;	Fax:	+61-3-9905	4007
E-mail:			inquiries@monash.edu.au	
Web		Site:	http://www.monash.edu.au	
Founded:				1958
First	Accredited:	January	8,	2005
Next Review:	2009			

Offers a wide range of undergraduate and postgraduate distance education (off-campus) courses and degrees in the fields of Art and Design; Arts; Business and Economics; Education; Engineering, Information Technology; Law; Medicine; Nursing and Health Sciences; Pharmacy, and Science. Please visit their web site for a full listing. (Note: DETC's accreditation is for courses and programs through the first-professional degree level only.)

Point IV. Including medicine

[Skip to content](#) | [Change text size](#)



[Monash home](#) | [About Monash](#) | [Faculties](#) | [Campuses](#) | [Contact Monash](#)

[Staff directory](#) | [A-Z index](#) | [Site map](#)

SEARCH enter search terms

- [Future Students home](#)
- [Course Finder](#)
- [Pathway programs](#)
- [Partner programs](#)
- [Applications and entry requirements](#)
- [Offers and enrolments](#)
- [Fees and costs](#)
- [Scholarships](#)
- [Accommodation](#)
- [Services and facilities](#)

[Monash University](#) > [Prospective students](#) > [Course Finder](#) > Doctor of Medicine (su

Doctor of Medicine (supervised)

	Domestic students	Internat
Attendance type		
Intakes	First semester, second semester, summer semester	First se
Course Content	See: University handbook entry for this course	
Duration	4 years (full-time equivalent)	
Fees	Research Training Scheme (RTS) RTS places are available to Australian citizens, Australian permanent residents and New Zealand	Full \$ 25,97

- [Events](#)
- [Local students](#)
- [International students](#)
- [Off-campus students](#)
- [Postgraduate students](#)
- [Research students](#)
- [Information for parents](#)
- [Information for schools](#)
- [Contact us](#)

	citizens.	
Note: see information on how average fee is calculated.		
How to apply	Entry requirements and applications - domestic students	Entry requirements for international students
CRICOS code	Not applicable	052825
Monash course code	3852	
Faculty	Faculty of Medicine, Nursing and Health Sciences	
Contact	All domestic and international enquiries should be directed to: Ms Karen Charlton, Research and Graduate Programs Office, Faculty of Medicine, Nursing and Health Sciences telephone +61 3 9905 4313, email: karen.charlton@med.monash.edu.au . website: http://www.med.monash.edu.au/research/index.html	All domestic and international enquiries should be directed to: Ms Karen Charlton, Research and Graduate Programs Office, Faculty of Medicine, Nursing and Health Sciences telephone +61 3 9905 4313, email: karen.c website: http://w

 [Print version](#)

Copyright © 2007 Monash University ABN 12 377 614 012 - [Caution](#) - [Privacy](#) - [CRICOS Provider Number: 00008C](#)
 Maintained by webmaster@monash.edu.au - [Accessibility information](#)

Point V. Has an off campus program

[Skip to content](#) | [Change text size](#)



- [Off-Campus home](#)
- [About off-campus study](#)
- [Student profiles](#)
- [Courses](#)
- [Entry requirements](#)
- [Costs](#)
- [Applications](#)
- [Student services and support](#)
- [Important dates](#)
- [Contact us](#)
- [Off-Campus Learning Centre](#)

[Monash University](#) > [Offcampus](#) >

Studying off-campus at Monash

Monash University offers approximately 150 off-campus courses to cater for students with a range of needs and expectations.

Off-Campus Learning is a flexible mode of study. Most commonly it is based on a combination of print study material and electronic communication. Each unit studied in the Off-Campus Learning mode has the same content and assessment as the equivalent on-campus unit.

Students are not restricted to studying solely in one mode (i.e. on-campus or off-campus). Subject to approval, students may enrol in a combination of units in either mode or change from one mode to another.

For a small number of courses there are short compulsory attendance requirements, primarily for those that are laboratory-based or require group interaction. These courses include, but are not restricted to, studies in biology, chemistry and physics (from second year), engineering, medicine, visual arts studio units, psychology, social welfare and social work.

Study load

Off-Campus Learning normally requires two units per semester – half of the on-campus load. This means that to achieve a qualification through Off-Campus Learning, most students take twice as long as they would on-campus.

Students wishing to increase their study load need to negotiate directly with their faculty.

Time commitment

There are two 13-week semesters in an academic year, from March to early June and from mid-July to late October, with a non-teaching week in each of April and September. The three week examination period follows each semester. Generally each unit requires about 10 to 12 hours of work per week. However, the time will vary with the student's background and familiarity with the subject matter.

Learning materials

Off-Campus Learning materials are carefully structured and specifically designed for independent study and are a combination of print, audio, video, CD-ROM, world wide web or experimental kit.

The materials provide an overview of studying the unit, the assessment requirements, unit content and some reading and reference material. They may also be supplemented by online discussion to facilitate interaction with teaching staff and fellow students.

Most units have prescribed textbook(s), available from the university bookshop, and some may require software that the student must purchase.

Some, or all, of the Off-Campus Learning materials will be sent to students by mail prior to the commencement of semester, or they can access them online via WebCT or other online learning tools. Students may commence studying as soon as the materials are received.

Academic assistance

Academic assistance with the materials can be obtained from teaching staff by telephone, letter, fax, email, discussion groups and other forms of online communication.

Assessment

Most units are assessed by a combination of assignments and an end-of-semester examination. Assessment requirements are normally specified in the unit learning materials mailed to students.

Examinations

View a list of current Off-Campus Learning [examination centre venues](#).

It is not necessary to attend on-campus for examinations. Examination centres have been established throughout Australia and overseas. Special arrangements may be made for students living in remote areas.

Copyright © 2006 Monash University ABN 12 377 614 012 - [Caution](#) - [Privacy](#) - [CRICOS](#)
Provider _____ Number: _____ 00008C

Last updated: 31 October 2006 - Maintained by uniweb@adm.monash.edu.au - [Accessibility](#)
[information](#)

Point VI. Also located in the United Kingdom

[Skip to content](#) | [Change text size](#)



[Monash home](#) | [About Monash](#) | [Faculties](#) | [Campuses](#) | [Contact Monash](#)

[Staff directory](#) | [A-Z index](#) | [Site map](#) SEARCH

[Monash University](#) > [Monash campuses](#) >

London Centre contact information

Monash University London Centre is located within the Strand campus of King's College London, at 171 Strand (corner of Surrey Street) opposite the Australian High Commission in London.

Travelling to London Centre

By train: take the London Underground to Temple Station. The centre is three minutes walk from the station exit.

By plane: The London Centre is 25.3 km (15.8 miles) from Heathrow Airport. A taxi ride from the airport costs between £40 - £70 and takes between 30 and 60 minutes, depending on the time of day. The Heathrow Express provides a non-stop 15 minute train service between Heathrow Airport and Paddington with a one-way express ticket costing £14.50. The tube from Paddington to Temple on the Central Line takes 24 minutes and a single ticket costs £3.00 (if bought with cash) or £1.50 (if using a pre-purchased travel card).

Copyright © 2007 Monash University ABN 12 377 614 012 - [Caution](#) - [Privacy](#) - [CRICOS Provider](#) Number: 00008C
Last updated: 30 June 2006 - Maintained by webmaster@monash.edu.au - [Accessibility information](#)

Contact information

Monash University
London Centre
171 Strand
London WC2R 1EP
ENGLAND

Tel: +44 20 7240 4618

Fax: +44 20 7240 8579

Email: monash@kcl.ac.uk

Related links

[Monash University London Centre website](#)

[Skip to content](#) | [Change text size](#)



[Monash home](#) | [About Monash](#) | [Faculties](#) | [Campuses](#) | [Contact Monash](#)

[Staff directory](#) | [A-Z index](#) | [Site map](#)

SEARCH for

[Off-campus Learning Guide 2006](#)
[Introduction](#)
[Art and Design](#)
[Arts](#)
[Business and Economics](#)
[Education](#)
[Engineering](#)
[Information Technology](#)
[Medicine, Nursing and Health Sciences](#)
[Pharmacy Science](#)
[Off-campus learning application forms \(pdf 174kb\)](#)

[Monash University: University Handbooks: Off-Campus Learning Guide 2006: Units indexed by faculty \(2005\)](#)
[Previous page](#) | [Next page](#) | [Section contents](#) | [Title and contents](#)

Medicine, Nursing and Health Sciences

Undergraduate studies

Single degrees

[Bachelor of Nursing \(Post Registration\)](#)
[Bachelor of Social Work](#)

Double degrees

[Bachelor of Arts/Bachelor of Social Work](#)

Graduate and postgraduate studies

Coursework programs

CENTRE FOR AMBULANCE AND PARAMEDIC STUDIES

[Master of Emergency Health \(MICA Paramedic\)](#)
[Graduate Certificate in Aeromedical Retrieval](#)

DEPARTMENT OF EPIDEMIOLOGY AND PREVENTIVE MEDICINE

Biostatistics

[Master of Biostatistics](#)
[Graduate Diploma in Biostatistics](#)

[Graduate Certificate in Biostatistics](#)

Health services management

[Master of Health Services Management](#)
[Graduate Diploma in Health Services Management](#)
[Graduate Certificate in Health Services Management](#)

Occupational and environmental health

[Master of Occupational and Environmental Health](#)
[Graduate Diploma in Occupational and Environmental Health](#)
[Graduate Certificate in Occupational Health](#)

DEPARTMENT OF FORENSIC MEDICINE

Forensic medicine

[Master of Forensic Medicine](#)
[Graduate Diploma in Forensic Medicine](#)
[Graduate Certificate in Forensic Medicine](#)

Forensic pathology

[Graduate Diploma in Forensic Pathology](#)

DEPARTMENT OF GENERAL PRACTICE

Family medicine

[Master of Family Medicine](#)
[Master of Family Medicine \(Clinical\)](#)
[Graduate Diploma in Family Medicine](#)

Medical acupuncture

[Graduate Certificate in Medical Acupuncture](#)

DEPARTMENT OF PSYCHOLOGICAL MEDICINE

Mental health sciences

[Graduate Diploma in Mental Health Sciences – Community Mental Health](#)
[Graduate Certificate in Mental Health for Teaching Professions](#)

Child psychotherapy studies

[Graduate Diploma in Child Psychotherapy Studies](#)

DEPARTMENT OF PSYCHOLOGY

[Master of Psychology \(Health\)](#)
[Postgraduate Diploma in Psychology](#)
[Graduate Diploma in Psychology](#)
[Graduate Certificate in Animal Welfare](#)

DEPARTMENT OF MEDICAL IMAGING AND RADIATION SCIENCES

Medical ultrasound

[Master of Medical Ultrasound](#)
[Graduate Diploma in Medical Ultrasound](#)
[Graduate Certificate in Medical Ultrasound](#)

Radiation therapy

[Master of Radiation Therapy](#)

Radiographic practice

[Master of Radiographic Practice](#)
[Graduate Diploma in Advanced Radiographic Practice](#)
[Graduate Certificate in Radiographic Practice](#)

DEPARTMENT OF SOCIAL WORK

[Master of Social Work](#)

MONASH INSTITUTE OF HEALTH SERVICES RESEARCH

Evidence-based practice

[Graduate Certificate in Evidence Based Practice](#)

Health informatics

[Graduate Diploma in Health Informatics](#)
[Graduate Certificate in Health Informatics](#)

SCHOOL OF NURSING AND MIDWIFERY

General nursing

[Master of Nursing](#)

Midwifery

[Master of Clinical Midwifery](#)

Nursing (gerontics)

[Graduate Diploma of Nursing \(Gerontics\)](#)
[Graduate Certificate of Nursing \(Gerontics\)](#)

Nursing (mental health)

[Graduate Diploma of Nursing \(Mental Health\)](#)
[Graduate Certificate of Nursing \(Mental Health\)](#)

SCHOOL OF RURAL HEALTH

[Master of Rural Health](#)
[Graduate Diploma in Rural Health](#)

[Previous page](#) | [Next page](#) | [Section contents](#) | [Title and contents](#)

Copyright © 2007 Monash University ABN 12 377 614 012 - [Caution](#) - [Privacy](#) - [CRICOS Provider](#) Number: 00008C
Last updated: 13 December 2005 - Maintained by publications@adm.monash.edu.au - [Accessibility information](#)

Point VII. Also located in the South Africa

[Skip to content](#) | [Change text size](#)



MONASH University



[Monash home](#) | [About Monash](#) | [Faculties](#) | [Campuses](#) | [Contact Monash](#)

[Staff directory](#) | [A-Z index](#) | [Site map](#)

SEARCH

Go

[Monash University](#) > [Monash campuses](#) >

Monash South Africa campus map and contact information

The campus is located at 144 Peter Road in Ruimsig. It can be accessed via the Western Bypass and is eight kilometres from the 14th Avenue exit and six kilometres from the Pretoria/Krugersdorp Highway (N14).

Travelling to Monash South Africa

By car: the trip to Monash South Africa, takes about 30 minutes from central Johannesburg. See maps 28 (DH80) and 29 (DH81) in the 12th edition (2002/2003) Witwatersrand Street Guide.

By plane: the campus is a 35 to 45 minute drive away from Johannesburg International Airport and 15 to 20 minutes from Lanseria Airport.

Parking at Monash South Africa

Parking is available on campus for students, staff and visitors. Parking permits for staff and students can be purchased from the Student Services Centre.

Campus map

[Printable version of the Monash South Africa campus map \(pdf 44kb\)](#)

Copyright © 2007 Monash University ABN 12 377 614 012 - [Caution](#) - [Privacy](#) - [CRICOS Provider](#) Number: 00008C
Last updated: 06 June 2005 - Maintained by webmaster@monash.edu.au - [Accessibility information](#)

Contact information

Monash South Africa
144 Peter Road
Ruimsig
SOUTH AFRICA

Tel: +27 11 950 4000
Fax: +27 11 950 4004
Email:
inquiries@monash.ac.za

Related links

[Monash South Africa website](#)

Point VIII. Is listed by FAIMER



FAIMER®

Foundation for Advancement of
International Medical Education and Research

[FAIMER Home](#) > [FAIMER International Medical Education Directory](#) > [Search IMED](#) > School Details

Medical School Details

Country Details

<u>School Name</u>
MONASH UNIVERSITY
<u>School Address</u>
FACULTY OF MEDICINE, NURSING AND HEALTH SCIENCES
PO BOX 64
CLAYTON, VICTORIA 3168
AUSTRALIA
<u>Phone</u>
Data not currently available.
<u>Fax</u>
Data not currently available.
<u>Email</u>
enquiries@med.monash.edu.au
monash.direct@adm.monash.edu.au
<u>Website</u>
http://www.med.monash.edu.au/
<u>Former Official Names of Medical School/University</u>
Data not currently available.
<u>Degree Title</u>
MBBS


<u>Country Name</u>
AUSTRALIA
<u>Capital</u>
Canberra
<u>Population</u>
19,357,594 (2001 data)
<u>Region</u>
Oceania/Pacific Islands
<u>Official Language(s)</u>
English
<u>Number of Medical Schools</u>
15

<u>Graduation Years</u>
1963 - Current
<u>Year Instruction Began</u>
1961
<u>Language of Instruction</u>
English
<u>Duration of the Curriculum</u>
5-6 years
<u>Entrance Examination Requirement</u>
No
<u>Foreign (Non-National) Students Eligible</u>
Yes
<u>Total Enrollment</u>
Data not currently available.
<u>Notes</u>
The six-year curriculum will be phased out in 2005. The five-year curriculum was introduced in 2002.

Point IX. Australia has been found by USDOE to have standards comparable to those in the United States.

U.S. Department of Education

National Commission on Foreign Medical Education & Accreditation

URL <http://www.ed.gov/about/bdscomm/list/ncfmea.html#decisions>

Review Process

The information below provides a brief overview of the process used by the US Department of Education and the National Committee on Foreign Medical Education and Accreditation (NCFMEA) for reviewing a foreign country's standards for accreditation of its medical schools.

1: Submission of Information
When a country contacts the US Department of Education (Department) and asks to have its accreditation standards reviewed, the Department requests that the country answer questions regarding its accreditation standards and processes and also provide supporting documents (e.g., copies of statute and regulations, standards, etc.). The questions are designed to solicit information pertinent to the guidelines developed by the NCFMEA for its evaluation of a foreign country's standards.

Step 2: Staff Analysis
A Department staff member is assigned to review the information and documents. If the submission is insufficient, the Department requests additional information and/or documents. The staff member then prepares an analysis, based on the documentation provided by the country, of the comparability of the country's standards to those used in the US for accrediting medical schools. A copy of the staff analysis is sent to the country for review and comment.

Step 3: Advance Materials to NCFMEA Members
Approximately two weeks before the NCFMEA meeting, the Department mails copies of the staff analysis, supporting documentation, and the country's response to the staff analysis (if any) to the NCFMEA members for their review prior to their meeting.

Step 4: NCFMEA Meeting -- Public Session
For each country on the meeting agenda, a Department staff member presents an overview of the analysis of the country's accreditation standards and processes to the Committee members and answers any questions Committee members might have. After the staff presentation, any official representatives of the country are given the opportunity to present information and answer any questions posed by Committee members.

Step 5: NCFMEA Meeting -- Executive Session
After the presentations by Department staff and country representatives (if any), the Committee goes into executive session, which is open to official representative(s) of the country but is closed to members of the public. During this executive session, the Committee discusses the country's accreditation standards and procedures and then makes a determination as to whether the country's system for accrediting medical schools is comparable to the system used in the United States.

Step 6: Secretary's Letters regarding NCFMEA Decisions
The decisions reached by the NCFMEA at its meeting are kept confidential until the US Secretary of Education reviews the decisions and issues official notification to the countries. After the Secretary letters are faxed and mailed to the countries, and the US Department of State is advised of the NCFMEA decisions, those decisions are made available to the public.

Step 7: Implementation of Decisions
An accredited medical school in a country determined to have comparable standards may apply to the Department to participate in the Federal Family Education Loan

(FFEL) Program. The institution's application and supporting documentation (such as proof of accreditation, financial statements, etc.) are reviewed by the Department's Foreign Schools Team to determine whether the institution meets the regulatory requirements to participate in the FFEL Program. If the institution does meet the requirements, it must sign a Program Participation Agreement with the Department. After that agreement is executed, American students who attend that medical school may apply to receive loans under the FFEL Program.

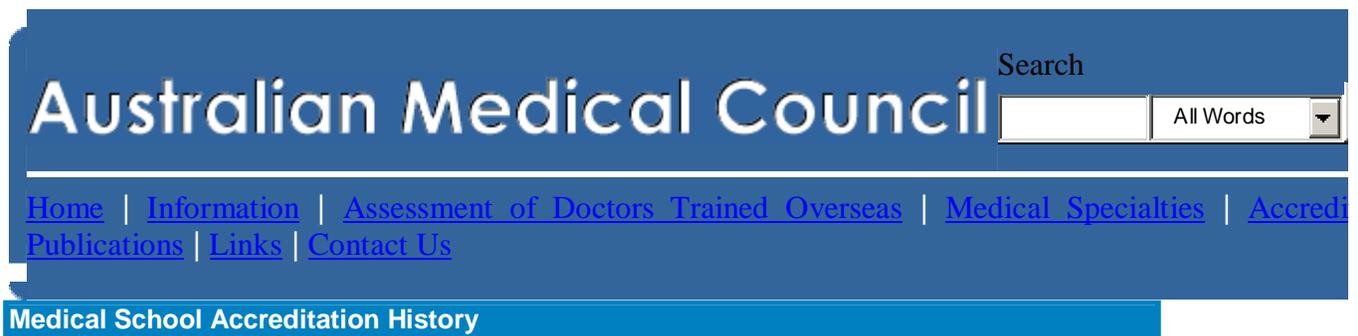
🏠 Decisions: Countries Determined to Have Comparable Accreditation Standards for Medical Schools

The countries listed below have been reviewed by the NCFMEA and found to use standards to accredit their medical schools that are comparable to the standards used to accredit medical schools in the United States. The date(s) in parentheses is (are) the date(s) of the Committee's decision(s) of comparability.

AUSTRALIA (2/95 and 3/01) - Australian Medical Council (AMC)
(Note: The Australian Medical Council also accredits medical schools in New Zealand under the terms of an agreement with that country.)

Point X. The Australian Medical Council Accredits Monash University.

URL <http://www.amc.org.au/accredhistory.asp>



The screenshot shows the top portion of the Australian Medical Council website. It features a dark blue header with the text "Australian Medical Council" in white. To the right of the header is a search bar with the word "Search" above it and a dropdown menu set to "All Words". Below the header is a navigation menu with links for "Home", "Information", "Assessment of Doctors Trained Overseas", "Medical Specialties", "Accreditation", "Publications", "Links", and "Contact Us". A blue banner below the navigation menu reads "Medical School Accreditation History".

One of the principal functions of the AMC is *“the accreditation of medical schools based at least largely in Australia and New Zealand and of courses leading to eligibility for admission to practice in Australia of graduates of those schools.”*

In 1985 the first AMC Accreditation Committee developed procedures and criteria for the assessment of Australian medical schools. At that time, all of the existing medical schools were awarded unspecified periods of accreditation so that their graduates would be eligible for registration in Australia until a formal on-site assessment could be conducted. The Committee monitored each medical course through annual reports from the schools and began sequential assessment visits of the Australian medical schools in March 1988. After negotiations with the

Medical Council of New Zealand the AMC process was extended to include New Zealand medical schools and interim accreditation was awarded to each of the two schools as of August 1992.

An individual accreditation history is provided on this site of each of the seventeen Australian and New Zealand medical schools in the following format:

- Name and length of each course
- Date of first AMC assessment visit
- Date Accreditation granted to

The AMC requires medical schools to submit periodic reports between assessment visits "to ensure that the it is apprised of curriculum changes, of emerging issues that may affect the medical school's ability to deliver the medical curriculum, and of the school's response to issues raised in the AMC report".

Monash University

Faculty of Medicine of Monash University
 Bachelor of Medicine Bachelor of Surgery MBBS of six years duration
 First assessed: March 1993
 Current Accreditation: Until December 2006 Course to be phased out in 2005
 Bachelor of Medicine Bachelor of Surgery MBBS of five years duration, introduced in 2002
 First assessed: July 2001
 Current Accreditation: Until December 2008

Point XI. ;

Licensed in 25 States in the United States

Monash Overseas	Univ.	TX	3	NJ	1
NY	17	PA	3	NC	1
CA	15	MO	3	MN	1
MA	14	IL	3	IA	1
WA	5	FL	3	DE	1
OH	5	KY	2	CT	1
MD	5	TN	1	CO	1
MI	4	OR	1	AZ	1
VA	3	OK	1		

Advisory Council question 1. What is the extent that off-campus training that has been approved/accredited in Australia?

In the US?.

In the UK?,

In other nations?

Advisory Council question 2. What is the evidence to demonstrate success/failure of the off-campus program?

In Allied Health Sciences – Extensive use of Distance Learning, One example;

A.T. Still University offers Masters and Doctorate Distance Learning Degrees

<http://atsu.educationdomain.com/index.jsp?&CCID=20061853203050036&QTR=ZZf200507110912350Za20061853Zg172Zw5Zm753Zc203050036Zs3944ZZ&CLK=462070204194350653&&cfurl=atstill-university/online-degree.htm&exp=y>

Doctorate in; Physical Therapy, Health Education, Advanced Occupational, and Masters in; Advanced Occupational Therapy, Advanced Physician Assistant- Geriatric Health, Health Administration and Public Health.
http://atsu.educationdomain.com/popups/popup_programs.jsp

Specialty Boards commonly recognize CME using Distance Learning

CME Distance learning for preparedness training

NYU online program on Psychosocial Aspects of Bioterrorism and Other Disasters. It teaches post-disaster psychological and psychiatric reactions, ranging from the Worried Well to Post Traumatic Stress Disorder (PTSD). <http://chip.med.nyu.edu> - This program has been well-tested (see references below). The project is one focus of this year's initiative is to migrate the train-the-trainer course to the Web, providing instructions about administrative (e.g., working with standardized patients) and teaching challenges (facilitating a small group).

Triola M, Feldman H, Kalet A, Zabar S, Kachur E, Gillespie C, Anderson A, Griesser C, Lipkin M. A randomized trial of teaching clinical skills using virtual and live Standardized Patients. J Gen Intern Med 21(5):424-9, 2006

Triola M, Feldman H, Kalet A, Zabar S, Lipkin M, Anderson M, Kachur E, Praeger J. Psychosocial Aspects of Terrorism and Disaster Medicine. MedEdPORTAL; 2005. Available from: <http://www.aamc.org/mededportal>, ID=152

A New Position Paper by the LCME

<http://www.lcme.org/distancelearning.pdf>

ACCREDITATION ISSUES RELATED TO DISTANCE LEARNING: THE PERSPECTIVE OF THE LIAISON COMMITTEE ON MEDICAL EDUCATION

The growth of technology has increased the options for how instruction can be delivered in medical schools. Traditionally students and teachers interacted together about content at the same time and in the same place, as in a lecture or small group discussion. This is no longer the only available approach to instruction. Now, through distance learning, students can be separated from instructors, and from each other, and still be part of the same educational program. The purpose of this paper is to describe accreditation issues related to “distance learning.” We define distance learning as a structured educational process in which there is a spatial and/or temporal distance between teachers and learners.

SCOPE OF DISTANCE LEARNING

The concept of distance learning encompasses a wide range of possibilities. The following are examples of the spectrum of distance learning activities.

- Use of online instructional modules that supplement or replace in-person instruction in a course or multiple courses (temporal distance)
- Use of videoconferencing or teleconferencing for instruction during clinical clerkships where students are located at dispersed clinical sites or a branch campus (spatial distance)
- Use of online instruction to replace other instructional methods for individual students who are dispersed regionally, nationally, or internationally, as part of a “virtual” medical school (spatial and temporal distance)

Each of these possibilities is reflected in some form of distance learning now in use to educate medical students in the United States or internationally.

An additional factor is the breadth of distance learning activities that are included in the curriculum. For example, students could use online instruction (temporal distance learning) to replace classroom teaching in a single basic science course or clerkship, in multiple basic science courses or clinical clerkships, in the whole preclinical or clinical curriculum, or in all didactic instruction across the entire curriculum. Although the LCME does not set a pre-determined limit on the extent of distance learning that is permitted under its standards, a medical education program using a curriculum taught substantially or completely by distance learning could not be accredited. This is because many of the standards for accreditation of medical education programs require direct interaction between faculty members and students, which cannot occur in a distance-learning context.

DISTANCE LEARNING AND LCME ACCREDITATION STANDARDS

Core Principles

Regardless of the learning format used, a medical school must be in compliance with all standards for accreditation of educational programs leading to the MD degree. The LCME has created the following core principles as a way to conceptually categorize accreditation standards relevant to distance learning. The core principles have been adapted by the LCME from the *Best Practices for Electronically-Offered Degree and Certificate Programs*, a document developed by the eight regional accrediting bodies.* It is expected that the core principles, and the relevant standards, will be considered by an educational program incorporating distance learning.

1. Medical education should occur in a community of learning and scholarship where students experience the continuum of medical education -- including graduate and continuing education -- and research, and where faculty are collaboratively involved in planning, implementing, and evaluating the educational program.
2. Educational programs leading to the MD degree should be organized around defined objectives and have coherent curricula and assessment methods that contribute to students attaining specified learning outcomes.
3. Medical schools should provide opportunities for experiential learning and dynamic face to-face interaction between students and faculty, in support of students' acquisition of knowledge, skills, and attitudes/values specified in the programs' educational objectives.
4. Medical school faculty and administrators should be responsible for the education provided to their students.
5. Medical schools should evaluate the outcomes of their educational programs and the attainment of their educational program objectives, and should work to improve educational program quality with particular emphasis on student learning.
6. Medical schools should accept the obligation to provide services to meet student needs and the resources to support student academic success.

Implications of Core Principles for Distance Learning in the Medical Curriculum

The following describe the LCME's interpretation of how the core principles apply to medical education programs and indicate which accreditation standards relate to each core principle.

Medical schools should consider this analysis in planning distance learning activities and should be prepared to document compliance with the relevant accreditation standards.

The full citations for the LCME standards are contained in *Functions and Structure of a Medical School*, located on the LCME web site (<http://www.lcme.org>). Please note that the list of relevant standards is meant to be illustrative, not exhaustive.

1. Medical Education in a Community of Learning

The LCME expects that there be close collaboration, mechanisms for communication, and functional integration among faculty in planning, implementing, and evaluating the curriculum, as well as in research and patient care. In addition, medical education should occur in an environment where there are other graduate and professional degree programs

and where graduate and continuing medical education and research are present, in order to enhance the academic environment and the breadth of the students' experience.

Relevant Accreditation Standards: IS-12, IS-12A, IS-14, IS-15, ED-41, FA-13

Implications for Distance Learning: An educational program which is not developed and implemented through collaborative faculty effort and where student education occurs in isolation would not be in compliance with accreditation standards.

2. Defined Objectives and Coherent Curricula

The medical curriculum should be based in a comprehensive set of educational program objectives that lead to students' acquisition of defined learning outcomes (competencies) and professional characteristics. The curriculum must permit students to acquire the desired knowledge, skills, and attitudes/values specified in the objectives and should be designed to address all the subject areas required for accreditation. Limitations on resources, either of personnel or facilities, should not result in the creation of a suboptimal educational program with gaps in coverage of any area deemed important in the objectives. All students, regardless of their location, should be able to acquire the desired knowledge, skills, attitudes/values as a result of the educational program that is available to them. The assessment methods utilized should evaluate students' attainment of the knowledge, skills, and attitudes/values specified in the educational program objectives.

Relevant Accreditation Standards: ED-1, ED-1A, ED-5, ED-10 to ED-23, ED-26, ER-3

Implications for Distance Learning: An educational program that is not based in defined and agreed-upon objectives and which does not provide all students with effective opportunities to acquire the required knowledge, skills, and attitudes/values is not in compliance with accreditation standards.

3. Opportunities for In-person Interaction Between Students and Faculty

Medical schools should provide opportunities for students to interact in person with members of the medical school faculty and, under faculty supervision, with patients. It is expected that opportunities for active learning in the classroom and in clinical settings will occur. The LCME believes that teaching and assessment of skills and attitudes/values requires in-person contact with faculty over time. For example, student attainment of core clinical skills must be assessed through direct faculty observation. In addition, the acquisition of professionalism and ethical principles is facilitated by having students interact with appropriate faculty role models on an ongoing basis.

Relevant Accreditation Standards: IS-13, ED-23, ED-25, ED-27

Implications for Distance Learning: A medical education program in which there is not direct interaction between faculty and students that is appropriate to the objectives of the program and to the desired learning outcomes is not in compliance with accreditation standards.

4. Responsibility for the Educational Program

The medical school administration and faculty are responsible for the entire educational program, regardless of the sites where students and faculty are located. Faculty responsibility for the educational program also includes assuring that educational materials that are used, wherever produced, address the school's own educational program objectives. Faculty, therefore, must have opportunities to participate in medical school decision-making about the educational program and about such matters as student admission, promotion, and graduation.

Relevant Accreditation Standards: ED-34, ED-36, ED-39, ED-41, FA-6, FA-12, FA-13, ER-10

Implications for Distance Learning: A medical school where the chief academic officer and the faculty are not responsible for the educational program or for medical school policies related to the educational program is not in compliance with accreditation standards.

5. Assessment and Improvement of Program Quality

Regardless of how education is structured, the curriculum should be a coherent and coordinated whole. There should be evaluation of educational quality and assessment of whether students are attaining the educational program objectives. The results of evaluations should contribute, through a centralized process, to educational program improvement.

Relevant Accreditation Standards: ED-33, ED-35, ED-46

Implications for Distance Learning: A medical school where there is inadequate formalized and coordinated evaluation of educational program quality and where the results are not used to improve program quality so as to enhance student learning is not in compliance with accreditation standards.

6. Obligation to Meet Student Needs

Medical schools are expected to ensure that students have access to appropriate support, such as health and personal counseling services, financial aid services, and academic/career counseling. This applies regardless of where students are located. Mechanisms for communication between the medical school and student body also need to exist, so that students can provide input into the school's decision-making processes, for example, by providing feedback on courses and clerkships. Regardless of student location, there should be a single standard for promotion and graduation, and students should not be penalized in their learning or in the services that they receive based on their location.

Relevant Accreditation Standards: ED-42, MS-18, MS-19, MS-23, MS-26, MS-27, MS-27A

Implications for Distance Learning: A medical school that does not provide access to the full range of student services, allow students to have input into the educational decision-making process, and use a single standard for decisions about student academic progress are not in compliance with accreditation standards.

[December 2006]

* Best Practices for Degree and Certificate Programs: Commission on Higher Education, Middle States Association of Colleges and Schools; Commission on Institutions of Higher Education, New England Association of Schools and Colleges; Commission on Technical and Career Institutions, New England Association of Schools and Colleges; Commission on Institutions of Higher Education, North Central Association of Colleges and Schools; Commission on Colleges, The Northwest Association of Schools and Colleges; Commission on Colleges, Southern Association of Colleges and Schools; Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges; Accrediting Commission for Senior Colleges and Universities, Western Association of Schools and Colleges

See;

http://www.ncahlc.org/index.php?option=com_content&task=view&id=32&Itemid=80