SPECIAL ARTICLE

Participatory planning for the transformation of the Faculty of Medicine into a College of Health Sciences

Cole P. Dodge,[1] Nelson Sewankambo,[2] Edward Kanyesigye[3]

[1] Facilitator/Advisor, Makerere University

[2] Dean of the Faculty of Medicine, Makerere University

[3] Head, Human Resource Division, Ministry of Health, Kampala

Background: The Makerere University, Faculty of Medicine was established in 1924, seventy-seven years ago. The year in which the current Dean, Professor Nelson Sewankambo enrolled was 1971. In 1971 the in take was 120 and his graduating class in 1976 was 86. The admissions for medical students in 1999 was 110 in the MBChB degree and 94 doctors were graduated. This represents zero growth between 1971 and 1999 in admissions and less than ten per cent increase in graduates. During this same period, the population of Uganda increased from nine million in 1971 to twenty two million people at the turn of the twenty first century, an increase of one hundred and twenty two per cent. Meanwhile, the disease burden of the country has increased with the HIV-AIDS pandemic, the outbreak of ***ebola*** in 2000 and a resurgence of the classic infectious diseases of malaria, complicated by the emergency of highland malaria and tuberculosis. Diabetes, heart disease and cancers are increasingly seen in medical facilities throughout the country. Infant, under-five child as well as maternal mortality rates are unacceptably high and among the highest in the world. Meanwhile medical diagnostic technology has surged forward with the introduction to Uganda of technologies such as the computed axial tomography scan (Cat-scan) and magnetic resonance imaging (MRI). Treatment regimes have become more complicated with the introduction of anti-retroviral therapies, laser surgery and chemo-therapy as well as radiotherapy for treatment of various cancers, as well as other surgical procedures.

In summary, there are more than twice as many people living in Uganda while Makerere University Faculty of Medicine graduates roughly the same number of doctors, nurses and other health professionals as they did one, two and even three decades ago. These graduates are unable to meet the medical and health needs of the country, even though there have been dramatic advancements in the technological arena for both diagnosis and treatment. The Ministry of Health currently estimates the doctor to population ratio at 1:22,000 compared to 1:11,000 in 1970, in other words the situation is twice as bad presently as it was thirty years ago with respect to the doctor to population ration.[1, 2]

The background to the situation of higher education within Uganda is one in which Makerere University is the most prominent. Makerere is the largest and has historically graduated the vast majority of Ugandans with a bachelors or higher degree. However, from the hay day of prestige and prominence in the post colonial period of the 1960s Makerere University has gone through very hard times as a result of the military coup in 1971, which brought Idi Amin to power and the years of civil war from the late 1970s to 1986 when the National Resistance Movement government came to power.[3,4] While the period from 1986 to the present has one of relative peace and stability over most of the country, the areas impacted by continuing civil unrest has not adversely impacted Makerere University directly, mainly because the areas of conflict are at the periphery while Kampala is at the center geographically.[5]

From 1971 to 1985 the situation of Makerere University was one of stagnation initially, decline and eventually neglect with adverse consequences for higher education within Uganda. Salaries were eroded in US dollar terms from around $500 per month for a mid level academic in 1971 to about $50 by 1985 because of mismanagement of the economy. The economy of Uganda

Correspondence:
Cole P. Dodge
Facilitator/Advisor
Makerere University
Box 7062, Kampala
E-mail: dodge@bidii.com

was mismanaged and complicated further by civil war and a breakdown in governance.

This mismanagement resulted in a nearly bankrupt treasury through a decline in tax revenues declines, low agricultural productivity, the collapse of the light manufacturing sector, expulsion of the Asians, flight of foreign investment and international companies, destruction and looting of the infra-structure in para-statal entities, including roads, bridges, telephones, postal services as well as coffee processing and marketing and all other sectors of the economy. Basically the Government of Uganda had little or no money to pay civil servants including the staff of Makerere University.[6] By the time the NRM government was able to bring fiscal policy reform to bear on the economy and restore donor confidence through the policies of privatization, deregulation, liberalization and decentralization as well as restoration of property to the expelled Asian community, priorities of the Government in the education sector had switched to universal primary education. While primary education has greater social and economic benefits in terms of the investment, it nonetheless left Makerere University under funded with salary levels stagnated and buildings in a state of dilapidation.[7]

Makerere University was in trouble in the early 1990s with no relief in sight from the Government of Uganda. Simultaneously, as the economy grew and families were able to afford to pay for university education for their children, society demanded admission for their children. So too young professionals developed their future prospects based on peace, stability and an expanding economy and they were eager to enroll in night classes. Therefore, a decision to admit private fee paying students was made. This brought other changes, namely decentralization of decision-making and retention of money generated from fees by units (faculties, departments and institutes).[8,9]

Once the decision to decentralize and admit private students and open up the doors of the university to night classes, an unprecedented growth spurt occurred. Enrolment levels rose from around 3,000 students in 1990 to over 15,000 by 2002-03 academic year.

Background to the planning for the College of Health Sciences: The Makerere University Senate and Council encouraged the Faculty of Medicine to transition to a College of Health Sciences. **The University and Other Tertiary Institutions Act 2001, UPPC Entebbe 6 April 2001** provides for the creation of Colleges within Makerere University. The Vice Chancellor requested a planning grant to Rockefeller Foundation in late 2000. There is also a provision for the transformation of faculties into colleges in the **Makerere University Statute for Constituent Colleges of Makerere University, May 2000.** However it is the legal provision under **The University and Other Tertiary Institutions Act 2001** section 29 article I which clearly mandates the formation of a College: ***"The National Council*** *may, after consultation with the relevant institution and with the approval of the University Council and the Senate of a Public University, by statutory order- (a) establish any college or institution as a constituent college of that Public University; (b) declare any Public Tertiary Institution as a constituent collage of that Public University (page 25).*

Organizations always have a need to plan in order to define their directions, goals, objectives, activities, budgets and so on. But planning can be approached in different ways. It can be done by staff members working individually and then presenting their plans for discussion and approval. The shortcoming of this approach can be seen directly in the experience of the Faculty of Medicine which established successively two separate committees between 1998 and 2001 to draft a plan for transformation. The problem of these plans were that they were basically viewed as reflecting the authors ideas. During the discussion process, both these draft plans were found unacceptable to the various departments of the Faculty of Medicine. The main obstacle to acceptance was that the level of ownership by members of the Faculty of Medicine was low because the planning process was not inclusive. An alternative planning process was introduced through I@mak.com (Innovations at Makerere Committee) in 2000. Professor Nelson Sewankambo was a member of I@mak.com and adopted Virtualization In Participatory Planning (VIPP) for the Faculty of Medicine. Facilitated participatory planning is a process in which all stakeholders come together and brainstorm ideas which are consolidated into a plan. This approach uses an external facilitator with group management and planning skills to guide the process. The use of such a facilitator neutralizes conflicts in the group, promotes objectivity and maintains focus on the process and product. It also removes the extra burden that would be placed on the organization's management to organise the process and compile a report, proposal/or plan. This approach has increasingly become popular because of its effectiveness in developing well considered plans that all stakeholders associate with as their own and with a higher potential for successful implementation.

Background to Participatory Approaches to Planning

Participatory Question Based Facilitation (PQBF) grows directly out of the need to improve planning processes in situations which are entrenched or stagnated, highly competitive or conflictual. [11.] It is based on participatory techniques designed to diffuse tensions, tackle core problems, generate relevant solutions, enhance commitment and create a culture of effective team work. PQBF refers to a creative combination of different approaches to planning, centered around professional facilitation based on questions. Four identifiable streams of processes contribute to Participatory Question Based Facilitation namely;

- Paulo Freire's **conscientisation** movement which emphasizes awareness raising and empowerment. [12.]
- **Experiential learning** associated with Orlando Fals Borda of Colombia, which emphasizes multi-dimensional thinking (cognitive), feeling (affective) and acting (psycho-motor). [13.]
- **Visualization** techniques originating from the Quickborn Team of Germany associated with Eberhard Schnelle and his colleagues who designed training in which decision-makers and those affected by them visualize their problems, needs and solutions together, resulting in common action. [14.]
- **Visualization in participatory programmes** which was developed in the early 1990s by a team led by Neill McKee. McKee had learned a variety of participatory techniques from Hermann Tillmann and Maruja Salas, which he introduced into the planning processes for social mobilization and communication in UNICEF programmes in Bangladesh. [15.]

Applications of Participatory Question Based Facilitation. PQBF and VIPP have been applied in various group events such as planning for and implementation of institutional transformation, story line development, project planning, business meetings, cultural orientation, team building, training of trainers, gender training and dissemination of research findings, among other contexts. Within Makerere, the first unit to employ participatory planning techniques utilizing an outside facilitator was the Makerere Institute of Social Research. Shortly after Dr. N.B Musisi joined MISR as Director, she engaged Cole P. Dodge to facilitate a residential planning retreat. This resulted in ownership of a reorganization plan and created the framework for grater team work. The second example of successful PQBF was during the I@mak.com planning process which brought Makerere and Government together in a planning process which has resulted in the largest externally funded grant to Makerere University.

Third, in May 2000, the Planning and Development Department of Makerere University received a grant for strategic planning from Carnegie Corporation of New York, part of which was used for PQBF in some of the University units. The forth experience was in the Faculty of Medicine. Finally two further processes involving institutional transformation planning were undertaken in 2002 by the Faculty of Social Sciences and the Faculties of Agriculture, Veterinary Medicine, Forestry and the Department of Zoology.

Key characteristics of PQBF methods utilized in the Max-plan.com process were:

1. Formulation of central questions to guide all processes towards solutions.
   The first question was; " *What are the three most important problems facing the delivery of health services in Uganda today?"* All participants wrote their three problems on separate cards, these were clustered and each cluster given a label. One cluster was shortage of trained health professionals. The facilitator then requested the group to write cards on the question: *" What three solutions can you identify to meet the shortages of trained health professionals in Uganda today?"*
2. Equal treatment of all stakeholders by the facilitator with no one chairing and democratic treatment of all ideas: all ideas count.
   The group contained a diverse mixture of professionals and personalities. Through questions and cards, the Facilitator was able to give every participant an equal "voice". Dominant personalities were not allowed to monopolize. People in position of power were treated the same as those with less powerful positions.
3. Utilization of stakeholders' connotative knowledge: all stakeholders are the experts.
   The members of Max-plan.com were not homogeneous, in fact they were diverse. For example 45% were from outside the Faculty of Medicine; 20% were from non-governmental organizations; 27% were not medical doctors; 27% were women; 10% were under 40 years of age.
4. Collective ownership and memory were developed

on a non-competitive basis.

Because of participation, equality in the treatment of ideas and the incremental nature of the process, ownership of the outcome was shared equally. For example, the evaluation at the end of the 12th meeting recorded all members as optimistic about the prospects for implementation (eg 5 or 4 on a 1 to 5 scale with 1 being low and 5 high) as compared to 33% of the participants registering low expectation after the second meeting about success.

5. Informality took precedence over formality: relaxed atmosphere and meaningful interaction was engendered.
6. Flexibility in physical arrangements and time management.

   The room utilized in all these planning sessions was set up in a "U" shape with no hierarchy in seating.
7. Creation of large and small group synergy: everyone helped everyone else.

   The facilitator assigned group work to small groups of three or four participants with an eye to representation but by random selection. However if all members of a working group were from the Faculty of Medicine, the facilitator would reassign one member thus assuring a cross sectional representation in all groups.
8. Learning by doing .

   The process involved emphasis on meaningful questions, group dynamics, cooperation, incremental development of solutions and this resulted in a team spirit and ownership.
9. Commitment to the issues, creativity and capacities are assumed and promoted.

   There was no set agenda for any of the meetings. Rather each three day planning session had one or more themes/goals. Questions were formulated around these issues. Participants were not assigned homework between sessions. No participant was encouraged nor allowed to present a "position paper". Questions were conceived, reflected upon, improved and agreed before cards written. Over all, there was complete satisfaction of participants with the process as judged by the evaluation at the end of each of the planning sessions.
10. Continuous dialogue

    Question were incremental, evolution of solutions or the eventual plan were similarly incremental, growing out of continuity of the process itself spanning a period of twelve (12) months (from the first meeting held 11–13 May 2001) at the last 14th meeting held 5-7 April 2002.

Some advantages of question based and participatory methods for the Faculty of Medicine were:

- Inherent element of creativity and spontaneity in the process which captured and sustained high levels of interest.
- Use of people's knowledge and experiences through questions and avoidance of position papers for formal presentation and then defence, a process which often shuts out the prospect of synergy and incorporation of other peoples ideas.
- Generation of spontaneous ideas through synergy stimulated by participatory and interactive group dynamics.
- Handling of complicated topics incrementally through fundamental or basic components, especially questions.
- Stakeholders learning from one another and from answering questions. While this is obvious, in the case of Max-plan.com the membership benefited from the inclusion of non Faculty of Medicine members, such as from NGOs and non medical members as well as from Government ministries.
- Group transformation into teams. It is interesting to record that the Dean of the Faculty of Medicine commented that the group would never be able to work together after a group process set criterion for membership and short listed individuals who qualified. The process of PQBF was able to work with the group and indeed team formation was soon evident based on the common desire to plan effectively for Uganda's professional health human resource training needs.
- Plans developed by a team through consensus were more readily implemented. This was obvious in the expedient approval time for the proposal. The proposal was drafted in early October, approved by the Faculty of Medicine Board on the 18 of October 2001, by Senate Science Committee of the 23rd of October and by the Makerere University Senate on the 14-15 of November and finally by the University Council on the 23-24 of November 2001. Implementation will officially be accomplished in October 2002
- Stakeholders own the results. It is of interest that non Faculty of Medicine members of Max-plan.com have

engaged in the active promotion of the proposal and represented Makerere University at various forum promoting the new College of Health Sciences.

- Generation of relevant home-grown solutions. While many institutional transformation planning processes have taken place in Uganda, these often involve foreign or expatriate technical assistance professionals who work as consultants in the formulation process which result in difficulties at the stages of approval and especially implementation.
- Production of quick reports for distribution to members within one or two days of each meeting complete with digital photographs to remind members of the event was valued by members who shared these with colleagues, referred to them and utilized them in subsequent planning meetings. This allowed the facilitator to insist that no one took notes during the planning process, thus encouraging all participants to concentrate on what was happening and therefore assure higher rates of memory and recall. Also the meeting reports formed the basis of the final report, prospectus and other documents.

Transformation from Faculty to College:
The foundations of the transformation were based upon a change in organizational structure, the approach to teaching, the methods of learning and the financing of medical education.

- The organization structure is based upon four Schools with twenty departments. These are: School of Bio-medical Sciences; School of Medicine; School of Health Sciences and School of Public Health. A new Institute of Infectious Diseases will be added to School of Medicine. A Learning Resource Center will include the Library, a Skills Laboratory and the Medical Illustrations Unit. A new Institute of Continuing Medical Education will be developed along with a new ICT center. Finally a special office for Resource Mobilization for a time bound period of five years will be attached to the Principal's office.
- The teaching approach to be transformed from departmental to integrated team teaching. Further problem based learning will require acquisition of new teaching skills, tutorials rather than class room lecture sessions and competency by all teaching staff in practical computer technology.
- Learning will be organized around the principles of student center education. All students from the 2002 intake will be taught based on the proven, innovative, yet more effective problem based learning approach. Problem based learning will require all students to have immediate computer skills to access information.
- Financing of education within the CHSc will be based on costs and commensurate fees. The committee found the cost of medical education to be Ush 9, 772,000 per student year therefore the Government will be requested to commit that amount to each publicly sponsored student. Foreign students will be charged at comparable rates to other countries at the under graduate and post graduate levels of study equivalent to $7,000 per year in Ush. Since the cost of educating a student was found to be Ush 9,772,000 and because the CHSc wishes to encourage Ugandan post-graduate students, this fee will apply.

Costs: The additional cost of establishing the College of Health Sciences was in the order of five million U.S. dollars equivalent in Ush. For the following priority areas:

- Staff training in problem based learning, computers, integrated team teaching;
- Acquisition of computers, printers and other ICT equipment as well as soft ware;
- Construction of tutorial and computer rooms, remodeling of the library to accommodate the Skills Lab, ICT Center;
- Establish Institutes: Infectious Diseases, Continuing Medical Education, ICT Center;
- Expansion of sites for teaching, learning and service delivery.

Sources of revenue: The Makerere regular budget would cover most staff costs and other recurrent expenditures, however the CHSc will step-up recruitment to fill vacant posts and to improve management to improve effectiveness, efficiency and to assure accountability. The three significant sources of new revenues will come from:

- Government form higher student sponsorship in the medical and health fields;
- Fees paid by both private Ugandan and foreign students and finally;
- Grants, *sic* Pfizer Foundation for the Infectious Diseases Institute for construction, equipment, recurrent costs etc (note $11 million grant is approved in principle) donors.
- Partnership with other universities employing problem

based learning. These include: Maastricht, MacMasters, Arazona, Moi and Western Cape.

Membership of Max-plan.com

- Ministry of Finance (Keith Muhakanizi, Director Economic Affairs and Passy Washeba, Atg Assistant Commissioner, Social Services)
- Ministry of Education and Sports (Sarah Namuli, Asst. Commissioner)
- Faculty of Medicine (Prof. Sewankambo, Dean; Dr. Luboga, Assoc. Dean, Dr Katabira, Assoc Dean, Dr. Wabwire, Director IPH, Dr. Tumwine, Assoc Professor, and Speciosa Mbabali, Acting Head of Nursing)
- University Council (Dr. J. Sentongo-Kibalama, Head of Agric Engineering)
- Uganda Medical Association (Dr. Margaret Mungherera, President)
- Uganda Private Practitioners Assoc (Dr. Eva Kajumba-Muganga, Secretary General)
- Public Health Nurses College (Christine Alura, Nurse Tutor)
- Uganda Catholic Medical Bureau (Dr. Peter Lochoro, Asst. Executive Director)
- Mulago Hospital Management (Dr. Gideon Kikampikaho, Deputy Director)
- Ministry of Health (Dr. Edward Kanyesigye, Head, Human Resource Division)
- Student Representative (Dr. Moses Galukande, Post Grad student in Surgery)

Sources of information: The planning committee was informed through the following: First, primary research was undertaken in four sample districts. The research revealed, that under the policy of decentralization, shortages of health professionals exist and that recent graduates lack some critical skills for effective implementation of their jobs. Importantly, recent medical graduates lack, the ability to solve problems, innovate in an environment of scarce resources, communicate effectively, work in teams and manage institutions and programmes.

Second, district visits by all members of the committee were undertaken to the same four districts where the primary research was done. This enabled all members of Max-plan.com to see, hear and feel for themselves directly what the problems were, how medical professionals were performing and what their supervisors thought about their level of performance. Field visits are an integral part of PQBF processes because of the experiential value as opposed to theoretical or imagined information .

Third, expert witnesses were called from within and outside of Uganda. These were identified by Max-plan.com as leaders in their field and therefore invited to answer questions put to them through a formal process of testifying. Basically, expert witnesses were responded to questions put to them by members of Max-plan.com. None presented papers or addressed Max-plan.com with their suggestions through a speech. The expert witnesses five including the Vice Chancellor of Makerere University, the Director of Mulago Hospital, the founder Director of an institute for post graduate studies in health leading to the award of a Masters degree in Kenya, Director of Curriculum Committee of Moi University, Director Health Equity Project, Republic of South Africa and Provost of Ibadan Medical College, Nigeria.

Fourth, international visits to Colleges of Health Sciences and Faculties of Medicine which provide good examples of relevant and high quality training, successful recent reorganization and growth. A detailed questionnaire was developed by Max-plan.com and visits were undertaken by small groups. Visits were made to fourteen selected medical training institutions in Australia, South Africa, Tanzania, Mozambique, Kenya, the Netherlands, Canada and India.

Fifth, the process of Participatory Question Based Planning which is the subject of this paper and is covered in detail elsewhere, was the final way in which max-plan.com was informed. This dynamic included the stimulation of extensive discussion outside of the normal planning process, e-mail communication, internet searches, library research and numerous dialogues.

Time committed: All meetings were held over the weekend. Therefore the process did not directly take time away from normal professional commitments. Attendance records for full participation averaged 94% throughout the intensive twelve month process involving fourteen meetings of three days each as well as local district field visits of four days and the international trip which averaged seven days for each of the six teams. The planning process involved a total of 588 person days.

Factors contributing to success:

There are six outstanding factors which contributed most significantly to the success of the planning process.

1. The knowledge and commitment of the individual committee members. Interestingly, the knowledge base was not equally distributed which stimulated generation of varied data, different ideas, diverse perspectives and of course the final outcome was richer as a result.

2. Funding from Rockefeller Foundation enabled the process to be paid for by Makerere University and administered by the Faculty of Medicine. Each participant was given an honorarium of $100 per day in recognition of their personal time commitment and professional contribution. It should be noted that the rate at which Max-plan.com members receive for consulting services ranged from a low of $35 to a high of $450 per day with the average at an estimated $225.
3. Residential planning meetings outside of Kampala assured minimal interruptions. It also facilitated work late at night and early in the morning and on Sundays.
4. Facilitated participatory question based planning contributed to group work, motivation and incremental planning. It also contributed to ownership of the final proposal. Conflict and competition were moderated through this process. Because the facilitator was an outsider, he could ask questions, regulate, seek clarification and, at times, apply pressure which would have been difficult for an "insider."
5. Visits to outstanding international comparators where data was collected through a jointly developed questionnaire. One Faculty of Medicine member was assigned to visit Moi University in Eldoret, Kenya as a comparator. When he returned he reported: "*I have been an internal examiner at Moi for years. I thought I knew everything about Moi, but during this comparator visit, I learnt more because I met with Prof. Nshaho who is the head of their Curriculum Committee. We spent five hours in continuous dialogue without interruption- It was fascinating, inspirational, eye opening and the most important experience to me…*"
6. Finally, the outcome is a meaningful measure of success. First, the approval process was effective and efficient because the quality of the proposal reflected the depth and quality of the planning process. Also the inclusive nature of the membership of Max-plan.com which included key staff from three important Ministries, a member of Makerere University Council and influential members from Civil Society impressed various approving bodies as being broad based and representative. The prospectus has been received favorably.
7. The Faculty of Medicine under the Dean provided the motivation as well as commitment and leadership to encourage and support far reaching and open minded explorations. Also efficient and effective management of the process.

However, in an analytical sense, it is difficult to evaluate only six contributing factors. Other important factors included:

- Sufficient funding to allow the four schools to meet in residence with the same honorarium to review the Max-plan.com proposal and initiate planning for their respective schools. These meetings were facilitated by the same facilitator and participatory process employed. These meetings were funded from savings or unexpended funds from the grant.
- Commitment and confidence of the Vice Chancellor and Dean of the Faculty of Medicine to embark upon a new, innovative and time consuming planning process.
- Release of reports immediately after each meeting enabled participants to review and share material with their colleagues over a period of one year
- Ability and confidence level of Max-plan.com to embark upon radical changes even though Uganda has suffered from one and a half decades of decline, civil war and uncertainty. It is remarkable that expectations were pessimistic given the litany of problems enumerated at the beginning of the process and yet their own rising expectations inspired transformational change which would be difficult to implement however meaningful for the college, Makerere University, students and the medical profession.

Discussion:

The proceeding section on factors contributing to success of the planning process raises questions about the prospects for successful implementation. These are hard to predict. However, there are several factors which would impede successful implementation. Notably:

- Lack of financial resources
- Inability to fill vacant established positions within the new College of Health Sciences
- Failure to introduce higher fee structures based on the cost of medical education
- Difficulties in the process of transition from "lectures" center teaching to problem based learning which is student centered.

It is hoped that the success of the planning process will serve as an example to the implementation of the College and the four Schools. The Dean of Faculty of Medicine and his colleagues, all members of Max-plan.com as well as the expert witnesses, comparators and partners

have contributed to the transformational planning process in the recognition that the challenges of implementation are great, demanding but potentially profound in relation to the health needs of ordinary Ugandan citizens.

REFERENCES:

1. Ministry of Health. Health Planning Department, Inventory of Health Services in Uganda for the year 1996; Kampala 1996.
2. Ministry of Health. Studies of Human Resources for Health in Uganda: Phase III Final Report, Volume A, Kampala 23 March 1999.
3. Dodge CP and Weibe P (Editors): Crisis in Uganda: The breakdown of Health Services Pergamon Press, Oxford, 1985.
4. Dodge CP and Weibe P, Editors. Beyond Crisis: Social Development Issues in Uganda, MISR and ASA, Kampala 1987
5. Musisi NB and Dodge CP. Transformations in Uganda. Editors, MISR and Cuny Center, Kampala and Washington DC, 2002
6. Ddumba-Sentamu J. Economic Liberalization in Uganda: The Recent Experience and Challenges in Transformations in Uganda. Editors NB Musisi and Cole P. Dodge MISR Kampala 2002.
7. Court D. Financing Higher Education at Makerere: The Quiet Revolution. Human Development September 1999.
8. World Bank. Higher Education in Developing Countries: Peril and Promise; Task Force on Higher Education and Society. Washington D.C. 2000.
9. Musisi NB. Embroynic Transformation: Makerere University in the 1990s and into the 21st Century. In NB Musisi and CP Dodge Editors. Transformations in Uganda. MISR 2002.
10. References from Dr. David Court and Dr. Nakanyike B. Musisi on the transformation of Makerere University-Musisi to provide one paragraph text and appropriate references
11. The Uganda Gazette No. 19 Vol. XCLIV
12. Dodge CP, Musisi BM and Okumba Miruka, Participatory Question Based Planning; A Makerere Handbook for Facilitators, MISR, 2002.
13. Anne H and Timme Sl, Training for Transformation Books 1,2 and 3; Mambo Press Gwera, Zimbabwe 1989
14. Casse P, Training for the Cross Cultural Mind SIETAR, Washington DC 1981
15. Eberhard Schnelle, The Metaplan Method; Communication Tools for Planning and Learning Groups. Metaplan series No. 7, 1979
16. UNICEF, Visualization in Participatory Programmes, UNICEF Bangladesh 1993