Managing Change at Universities - a selection of case studies from Africa and Southeast Asia

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Dedicated to Prof. Naomi Luchera Shitemi,
who inspired many leaders in Africa to work
towards high quality in higher education

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Preface

The nature of higher education around the world is changing. This is true for teaching, for research, and for the management of higher education institutions. Universities in many countries are faced with less public funding, more demands by external stakeholders as well as increasing national and international competition. This implies the need for changes within higher education institutions. More autonomy for tertiary institutions, a strategy pursued by many governments around the world, allows universities to take advantage of opportunities, but at the same time brings new risks. Higher education institutions have to identify ways to harness their strengths, to deal with uncertainties, they have to introduce new management tools in order to use the scarce resources prudently and efficiently. Universities have to move from just administering an organization to managing it.

But what are exactly the new strategies which work, what are the structures which are suitable, what are the appropriate tools for the complex higher education institutions? There are no definite answers, but one observation is undisputed: Those who are in leadership and decision making positions in higher education institutions need to have a sound understanding of concepts and tools in financial management, quality management, human resource management, in marketing, in internationalization and many other areas. Leaders such as rectors, deans or heads of departments must understand how the changes can be approached in a way that people within the organizations subscribe to and support change. Successful decision makers in academia can improve the quality of teaching and learning, even when conditions are difficult.

This publication contains nine case studies of change processes in higher education institutions in Africa and Asia. The authors were participants of the International Deans Course (IDC), an innovative training course, jointly offered by the German Academic Exchange Service (DAAD), the German Rector's Conference (HRK), the University of Applied Sciences Osnabrück, the Centre for Higher Education Development (CHE), the Alexander von Humboldt-Foundation (AvH) and the Freie Universität Berlin (FU Berlin). The IDC is part of the DIES Programme which aims at strengthening higher education management in developing countries and is coordinated by the DAAD and HRK. The publication contains as well a very interesting paper on challenges for strategic management in teaching and learning, written by Bassey Antia (former participant and now co-coordinator of the IDC Africa) and Mary-Jane Antia.

The case studies show the wide variety of challenges higher education institutions face. Quality management has become a key issue in virtually all countries around the world. The search for strategies for faculties or smaller units is another important issue. The authors show how careful reflection on the challenges, on the options available, on benchmarking internationally can help in identifying viable ways for managing the institutional transformation.

The editors hope that readers will find the reflections on the challenges useful for their own change processes.

Bonn and Osnabrück, 20th September 2013
Peter Mayer and Marc Wilde

Building a sustainable Research Culture at Central Business School (Central University College, Ghana)

Bill Buenar Puplampu

Abstract

African Universities are often challenged by resource constraints, aging faculty and low compensation regimes. These challenges are felt particularly in the area of the research output of faculty members. The problem of low research output has been documented and written about by management scholars who lament the weak showing of African management faculty in reputable journals and top notch conference presentations. This project conceived as the present writer's Project Action Plan at the International Dean's Course for Africa 2011/12, set about to reverse a dire research output trend at a Ghanaian Business School. The Central Business School is a constituent Faculty of the Central University College (the largest private University in Ghana). With faculty strength of about 40 in 2010/11, it had no more than 4 publications/conference proceedings from all faculty between 2005–2010 (representing 10% output over 5 years). It had only 2 PhDs. At the start of this project in the 2010/11 session, the dominant ethic in the School seemed to be one of teaching. After 2years, at the start of the 2012/13 session the picture has changed dramatically. Faculty numbers have grown to 76; 14 faculty are on various PhD programmes (23%); 10 have attended and presented papers at international conferences (6%); 20 journal papers/proceedings have been chalked by faculty (33%). This paper describes the initiatives undertaken which have led to the dramatic turn in research output fortunes of the Central Business School.

Introduction and Background

Central Business School (CBS) started life in 1998 as the School of Business Management and Administration (SBMA), a constituent School of the Central University College (CUC). It has a campus in Mataheko Accra, and a main campus at

Miotso off the main highway that links the southern port city of Tema with Ghana's eastern border town of Aflao. By the end of the 2011/12 academic year, the University College had about 10,500 students. A little over 7,000 of these students are studying for various degree and post graduate programmes in the Business School, thus making the Business School the largest. CUC has three other Schools: School of Theology and Missions (STM), School of Applied Sciences (SAS) and Faculty of Arts and Social Studies (FASS). CUC is accredited by Ghana's National Accreditation Board and has institutional and programmatic affiliations with the University of Cape Coast and Kwame Nkrumah University of Science and Technology, both in Ghana.

The Ghanaian Higher Education Terrain

Ghana gained independence from Britain in 1957 and is thus is a 55-year old African country that is very proud of its democratic credentials. It has a po pulation of about 25million. It has since 1992, held five peaceful elections and is touted as a positive African story. Formal higher education in Ghana has a long history dating back over 100 years with the setting up of mission schools and training colleges and seminaries by various Christian denominations such as the Presbyterians and Catholics. Ghana's first university was set up in 1948 as the University College of the Gold Coast on the recommendation of the Asquith Commission on Higher Education in the then British colonies. Since then, the country has seen steady growth in the sector with 6 public universities, 10 polytechnics, 10 teacher training colleges and over 30 private university colleges of which the Central University College is the largest with about 10,000 students on two main campuses.

Central University College

The University started life in 1988 as the Central Bible College. In 1993, it became the Christian University College and then Central University College (CUC) in 1997. Central University College (CUC) is the second privately owned university college in Ghana. Owned by the International Central Gospel Church, its founder and Chancellor, Rev. Dr. Mensa Otabil, is a leading voice in African Christianity advocating for a proper synthesis of Christian religious expression and the translation of spirituality into practical everyday action. CUC started as a short-term pastoral training institute mainly for pastors of the church (International Central Gospel Church). After becoming a Christian University College it expanded its programmes to include the study of Christian Theology, Business Administration and some social science fields. Most of its current programmes are offered up to the graduate level and has seen the establishment of the Schools of Architecture and Pharmacy in the 2008/2009 academic year. In 1998, the University College was accredited by Ghana's National Accreditation Board. CUC was the first private university to run a weekend school that affords workers the flexibility of combining work and study in their desire to improve their education. This proved a uniquely popular and much needed innovation. After some 13 years of existence, CUC's development has been phenomenal with the construction of a permanent campus at Miotso, a community on the south eastern coastal corridor of Ghana. The university's Chancellor, Rev. Dr. Mensa Otabil, is the Head Pastor of the church which owns the University College. The university's current President is Professor K. Yankah, a noted professor of Linguistics and recently Pro Vice Chancellor of the University of Ghana. The academic organisational structure of the University College is presented below:

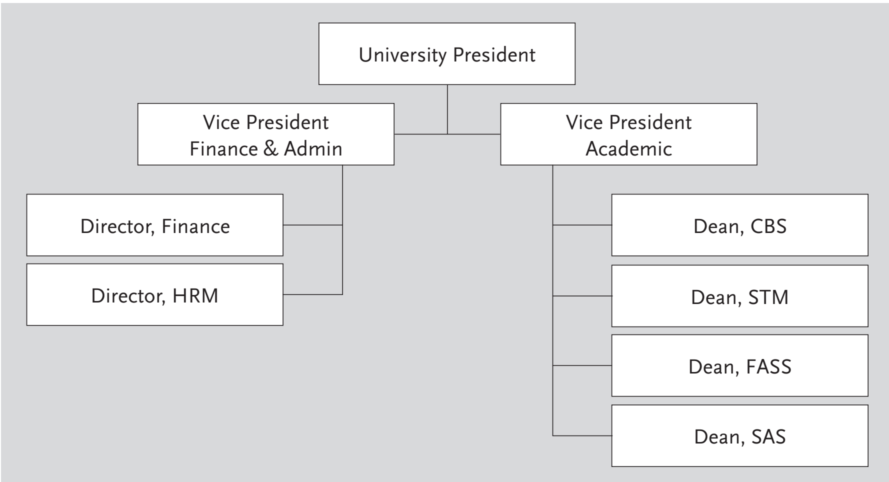

Figure 1: CUC Organogram

The Business School has over the years been the mainstay of the University's income stream as well as its most noticeable brand. It runs an MBA with four pathways (Finance, HRM, General Management and Marketing). It runs an undergraduate school with options in HRM, Marketing, Finance, Agribusiness, Accounting and Management. These programmes are delivered through six Departments, six teaching locations as well as morning, evening and weekend sessions. Until 2012 there was also concurrent use of trimester and semester modes of managing the academic year. The trimester mode was phased out from the beginning of the 2012/13 academic year.

The CBS organisational structure is presented below:

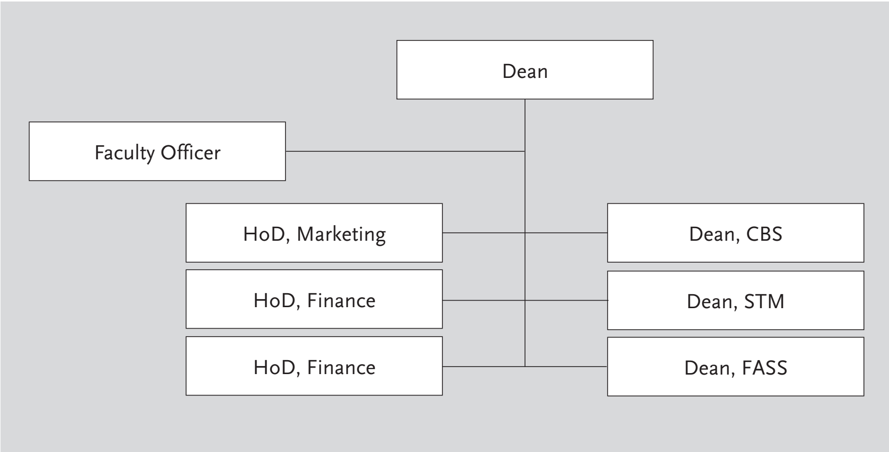

Figure 2: Organogram of Central Business School

The Problem

As noted above, two key characteristics of CBS present the source of the research output problem addressed by this project. These are:

- the burden of being the main source of income for the University through the sheer number of students and the corresponding volume of teaching
- the range and mix of programmes and delivery modes and the corresponding attention to course delivery more than any other aspect of academic life.

The above points were compounded by low staff strength or establishment numbers and weak research capacity.

The net result was that by 2010/11 academic year, the School was characterised by the following:

- 40 Full time faculty
  - Of whom only two had terminal degrees (PhD)
- Between 2005–2010, four conference proceedings and papers represented the only scholarly outputs

- Faculty teaching was spread throughout the whole calendar year without much of a break due to the overlapping use of both semester and trimester delivery modes
- Faculty had an average of 15–18 credit hours of teaching per week (instead of 9–12) and teaching took place day, evening and weekends
- Faculty may teach at more than two locations (for example, morning at the Miotso campus, evening at NIC campus and weekend at the Mataheko campus)
- The dominant ethic in the School was 'teaching'; to the extent that faculty spent their scarce 'free' time taking up adjunct teaching at other private colleges and pre-university institutions.

Faculty of the Business School were therefore in no mode for endeavours beyond teaching. The challenge therefore was how to reinvent the culture of the Business School for faculty to recognize and enact behaviours that lead to a truly scholarly ambience and pursuits that lead to research and recognizable intellectual outputs. A new Dean was appointed in September 2010. He placed research endeavours firmly on the agenda and committed to a turnaround within a three-year term.

This paper arises from adopting this problem and its resolution as the Project Action Plan for the International Dean's Course for Africa (IDC III) held between June 2011-February 2012 in Osnabrueck & Berlin (Germany), Abuja (Nigeria)/Nairobi (Kenya) and Addis Ababa (Ethiopia).

Brief Literature Review

Based on the situational review above, the challenge which faced CBS had everything to do with the culture of the School. Drawing on Schein (1997) and van den Berg and Wilderom (2004), an organisation's culture may be seen as consisting of its values, behaviours and practices. The literature on organisational culture shows that culture informs and impacts organisational performance (Denison 1990; Tsui et al 2006). It seems therefore that any effort to tackle the matter of poor research output needs to explore the cultural assumptions and behavioural imperatives around the issue because culture has long been established as a key determinant of behaviour. The obvious questions are: how culture actually comes to shape or influence behaviour and how one may change culture by changing behaviour or change behaviour by changing culture. These questions have exercised the minds of researchers and scholars such as Tierney (1988) and Woodall, (1996). With specific focus on the matter of changing the research culture, Pratt et al (1999) report the case of a highly successful effort to reinvent the research culture at the School of Management at University of Waikato. They show that successful change in culture and a reinvention of the research drive hinged on strong leadership at the level of Dean of faculty as well as decentralization of management. On the other hand, Ogbonna and Wilkinson (2003) identify command and control as well as threat of sanctions as important elements in culture change – in a commercial setting. Smith (2003) however noted that culture change often has low levels of success and often requires the sponsorship of mid rather than top level management.

The question that confronted the new Dean in September of 2010, was essentially: how do we turn the weak research situation around? This led to the Project Action Plan (PAP) developed through the IDC III of 2011/12. The PAP is detailed below as Appendix 1.

Methods

A number of interventions organized around the key traditions of change management and organisational development (McShane and Vob Glinow, 2000) were decided upon. Organization Development (OD) is a planned process of improving the effectiveness and capacity of an organization through a series of interrelated actions and initiatives. These initiatives often draw on behavioural science knowledge (such as knowledge of the underpinning values which influence behaviour) and methods (such as action research). An essential prerequisite of OD is that the process requires a form of initial diagnosis (medical metaphor) of the reason/s why change is necessary by carrying out organisational diagnosis (Popper, 1997). This underscores the critical role that information – properly gathered information – plays in any form of change and/or OD. Diagnosis helps to generate information that offers:

- Better understanding of the situation
- Opportunity to tailor interventions or solutions that actually derive from and speak to the situation (rather imposed or contrived solutions)
- A plan of action through which the solutions or interventions are implemented.

The methods adopted for this effort to build a sustainable research culture at this Ghanaian Business School therefore were as follows:

1. Carry out Organisational Diagnosis (the information sought and the data collection approach are described below)
2. Process the data and arrive at a set of implications for action

3. Set the implications into a project action plan (with activities/interventions and time goals) – recognizing that the plan would have a definitive period within which it is to be operationalized
4. Roll out a series of interventions and track their success or failure.

Information Needed The following information was considered necessary for informed intervention:

- Perceived challenges mitigating productive research effort and output
- Faculty understanding of behaviours and values necessary for building a productive research environment
- Institutional changes needed towards building a sustainable research culture.

Data Collection A brief questionnaire was designed which collected information on all three points noted above under Information Needs. Data collection was done early in 2011 and targeted on the 40 faculty members who were at post prior to September 2010. The reasoning behind this focus was to tap the views of those who had lived through the period of poor research output.

Findings

The questionnaire findings came from just under 50 % of the sampled population of 40 faculty members.

<table>
<tr><th>% of sample</th><th colspan="2">Issue or View point</th></tr>
<tr><td>75 %</td><td colspan="2">Felt there were not aware of the behaviours required of an active researcher</td></tr>
<tr><td>60 %</td><td colspan="2">Note that there were no clear statement of values guiding academic research</td></tr>
<tr><td>50 %</td><td>Felt most faculty members had a rather poor attitude to research</td><td rowspan="2">Issue of one's sense of personal behaviours and responsibility</td></tr>
<tr><td>50 %</td><td>Felt faculty members lacked commitment to research</td></tr>
</table>

Table 1: Descriptive Results of views of faculty members on issues around poor research outputs at CBS

The following were the reasons cited for low research output:

- Lack of direction
- Heavy teaching load
- Low commitment of faculty
- Poor culture

The following institutional challenges identified as mitigating research output:

- Excessive work load (teaching, committee, student supervision)
- Lack of School vision
- Poor leadership
- Poor research logistics.

Implications of the Findings

From the data, three clear organisational implications became evident:

a) The Business School seemed to have suffered a lack of leadership and vision towards research
b) The Business School had not developed a culture of research
c) The institutional arrangements were not (proactively) supportive of faculty research efforts.

These three implications became the basis for a series of interventions designed to mainstream research and begin the process of building an academic culture in which research is seen as a crucial part of the work of a university lecturer. The interventions were also driven in large measure by three key personal learnings from the IDC III 2011/12:

- that the changing nature of Higher Education (HE) financing and management (across the globe) call for deliberate and dedicated directive actions (rather than reactive or laissez-faire approaches) if we are to see the types of progress that would properly position African HE systems to deliver value
- that a high level of personal and professional commitment to using one's leadership position in HE to facilitate faculty development is required
- that globally, capacity for relevant research, quality assurance systems and sound academic governance are principal tools through which positive change in African HE may be achieved.

Interventions Based on the general vision of the Dean, data from the questionnaire as well as learnings from the IDC III in Osnabrueck and Berlin, a number of focused interventions were incepted from the beginning of 2011 as follows:

a) One-to-one counselling sessions targeting all faculty members: this involved building an administrative file on each faculty member, meetings with each faculty member to discuss their CV, career, options for progress, challenges and set personal targets. Central to these personal targets was a discussion of the faculty member's own research agenda.

b) Restructuring of the Business School in terms of
   - Departmental foci
   - Teaching load

The Central Business School was restructured and the existing three academic Departments were unbundled to create six Departments along clear disciplinary lines (Accounting; Agribusiness; Finance; HRM; Management/Public Administration; Marketing). The aim of this process was to facilitate greater focus and collegial effort on common research and academic interests.

a) Research Seminar Series: a monthly research seminar series was instituted. At these seminars, faculty were encouraged to present work in progress, finished papers, incipient ideas, proposals, grant applications etc. These papers were subjected to critical comment, suggestions for improvement, theoretical interrogation and demand for timelines towards completion of works in progress. A research coordinator was appointed and a research policy discussed and adopted.
b) Fostering faculty engagement with the issue of terminal degrees: through the various counselling sessions with faculty, the issue of progress to terminal degrees was raised as centre piece of any credible research training and academic career. This was a key effort given that at the start of the 2010 session only 2 out of 40 faculty members had PhD/DBA.
c) Use of 'teaching moments' (or teachable moments) to present and argue the need for a change in the research culture of the Central Business School: 'teaching moments' (Robert Havighurst, 1952) may be described as a point in time when someone or a group may be particularly disposed to learn, become aware of or become more responsive to certain ideas, thoughts or possibilities. During faculty meetings, and other such encounters, senior academics from both in and outside of Central University as well as the Dean, used personal examples to tell the story of how commitment to research and writing facilitated growth, supported an engaged spirit with the community and enabled these persons to make significant contributions to the profession and their personal lives. Teaching moments are often imbued with a sense of passion, urgency and near emotional appeal. Teaching moments in this case were used to present the following arguments:
   - Choice between a productive academic career or a bland one dominated by 'teaching'
   - Implications of not getting sufficiently published on one's employment prospects

- The trend towards terminal (PhD) degrees as minimum requirement for university teaching
- The increasing interest shown by potential academics in Central University College, thus threatening the continued employment of faculty who do not get serious with research and writing
- The value and satisfaction to be gained from knowledge generation and dissemination
- The value of joining the global conversation in one's chosen field or particular area of research interest
- The cross fertilization between active research and teaching which enriches the classroom experience.

Period of Interventions and evidences of culture change

The change initiatives described above took off early in 2011 and have been in place to date. Recognizing that culture change is a difficult and slow process, the evidences must be seen as modest impacts that have to be tested in the longer rather than short term. That said, the five interventions noted above seem to have facilitated the beginnings of change in the research culture at Central Business School.

The following are overt evidences that 'things have begun' to change within the last two years:

d) By September 2012, at least ten faculty members have attended various international conferences and presented papers in countries such as Greece, Finland, Morocco, Canada and the USA. *This must be set against no more than two such attendances between 2005–2012.*

e) By September 2012, 14 faculty members have registered and started various PhD programmes in Universities in Ghana, Switzerland, Malaysia and the UK. *This must be set against 0 such PhD registrations prior to 2010.*

f) The Research Seminar Series at CBS has become an established feature of the School's calendar with several papers presented and critiqued by various faculty members. *This must be set against the fact that prior to its inception in 2011, the School had no such research seminar series.*

g) A Research Coordinator has been appointed and a research policy document adopted. *Neither of these existed before 2010.*

h) At least 20 papers in peer reviewed journals have been chalked within the last two years. *This must be set against just two between 2005 and 2010.*

i) On the back of the growth in publications output, one faculty member has been promoted to Senior Lecturer and there are three others with pending applications. *This is against two or three such promotions in the five years period to 2010.*

j) 14 faculty members are engaged in the preparation of a manuscript for a book designed to document baseline research on various aspects of business in Ghana.
k) With specific reference to the Project Action Plan and its outcomes and milestones, the following have been achieved:
   a. Research Seminar Series has been institutionalized
   b. Research policy document has been adopted
   c. Research Working paper series established with ISSN purchased
   d. Public Lecture series have been launched.

These represent the overt verifiable evidences of actual shifts in the research ethos of Central Business School. There is however a long way to go and the following represent further challenges which suggest the research culture is still far from consolidated:

- Departments have as yet not instituted their own research teams, although cross departmental collegial research collaborations have been realized.
- The publications in peer reviewed journals appear to have come from only about 15 % of faculty members who are seriously active. Many others suggest they have works in progress.
- The School as yet does not have a defined research programmes that distinguishes it.
- Faculty still carry disproportionately heavy teaching responsibilities compounded by teaching delivery carried out at five different sites averaging 14kms apart with the furthest being 40kms out of town.
- Faculty office locations are not organized on Departmental lines, thus making direct supervision by Department heads (and/or the Dean) as well as physical contact between colleagues difficult.
- It is as yet unclear whether research values, behaviours and practices have been sufficiently discussed, 'codified' understood and become ingrained.

Summary Lessons

Based on the activities, interventions and events from 2010 to 2012 and the focused attention through the PAP from early 2011, a number of lessons may be learned as to how CBS is slowly reinventing itself:

a) **Leadership** It seems as if a key factor has been leadership at the level of the Dean. The Dean led by way of example, demonstrated a passion for research and writing and made the research theme a mantra with a combined individualized as well as group/team process of responsibility.

b) **Institutional Changes** Realigning the departments and focusing them on disciplinary lines was also a useful innovation. Furthermore, the University committed funds for supporting faculty to attend international conferences.
c) **Practices** The introduction of Research seminars as well as the appointment of a Research Coordinator provided the opportunity for faculty to actually engage in and talk about their research and then receive critical comments.

It seems therefore that in the African environment, it would be necessary for institutions looking to change the research output situation need to pay attention to the above key interventions.

Conclusions and theoretical possibilities

Culture change is a lengthy process. The prospects of immediate results are more often than not, rather difficult to achieve. It seems sustained action over long periods of time are required. From the evidences gathered through this case, a number of conclusions may be drawn with regards to changing the research culture of a university Faculty or School. These are as follows:

a) Sustained leadership (at the level of Dean of Faculty) commitment and action are necessary.
b) An institutional shift from focus on teaching to focus on research and scholarship are necessary
c) Specific initiatives which offer faculty the opportunity to present their research and receive due encouragement/critical comments are necessary.
d) Repositioning the values system of faculty members though a process of mentoring, encouragement, 'carrot & stick' (publish or perish) and career discussions enables the development of deeper levels of commitment to the research enterprise and the totality of the life of an academic.

Based on Pratt et al's (1999) position, the hall marks of a Faculty or School that is successful in research include: a thriving diversified graduate programmes, graduate students, a robust research programmes, conference attendance and publications in recognized academic and professional journals. From these pointers, one may suggest that the successes so far achieved at the Central Business School, are only the first shoots or buds which need careful attention and further nurturing. To be able to talk about a sustained culture of research, the School needs to move beyond individual responsiveness towards research and publishing to School and

Department based research programmes and graduate programmes which create synergies between faculty and bright graduate students. It is perhaps only when such practices become institutionalized that one can talk of a sustained research culture. This leads to a model that may well provide some conceptual frame for thinking about this issue in the African context:

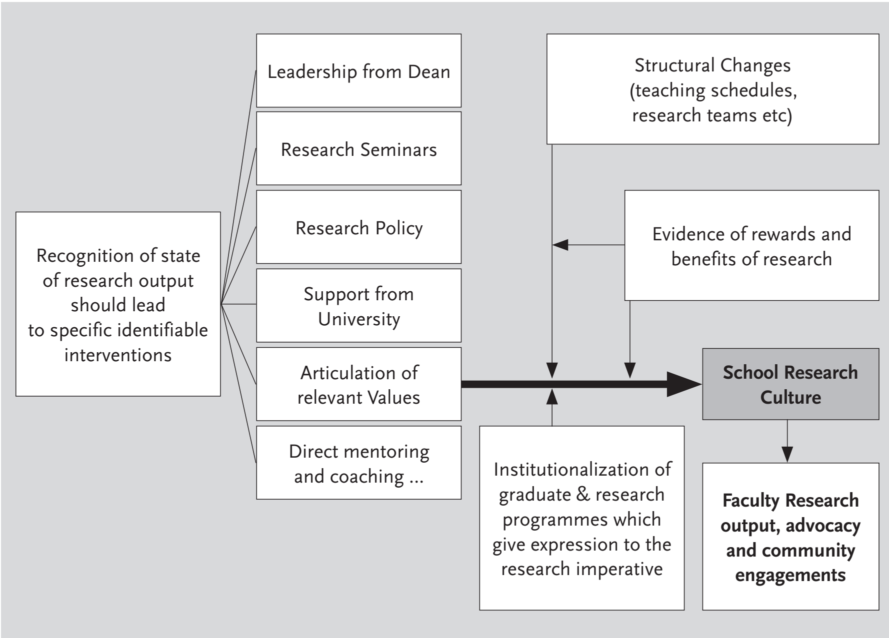

Figure 3: Building a Research Culture: Conceptual & Intervention Framework

The model in Figure 3 suggests that the research output from a Faculty of School such as a Business School cannot be achieved by simply expecting it to happen or by mere words of encouragement. Based on the experiences of the CBS case as well as the suggestions of other writers, it is possible to recommend that we should recognize that behaviours spring from a defined or ill-defined culture. Therefore the research outputs that may be expected, valued or demanded must be seen as a consequence of a cultural milieu. Working backwards therefore, one may note that specific interventions and actions such as the focus, vision and leadership of the Dean, crafting of research policy and instituting research seminars etc. are necessary first steps which emerge from proper assessment of the situation and its causative factors. These actions alone however, may not lead to a sustained culture of research. Importantly, it is suggested by the model that certain structural (such as organized teaching to allow faculty time for research), institutional (such as new graduate programmes and appointment of research coordinators etc) and behaviour reinforcement mechanisms (such as overt rewards or notation of the benefits towards promotion, personal career standing and options towards greater advocacy voice in the community) are important in getting change to occur.

In the end, the culture of a higher education institution is a never ending work-in-progress. Arising from this work therefore, a group of scholars across Africa are beginning a research project looking specifically at the organisational and research culture of African Universities with the hope that the findings should help to improve the published footprint of African scholars (especially those from areas such as Management, Business and Administration which are known to be under-represented).

It is likely that by the time this paper comes out the Dean of Central Business School may have ended his term. The test will be to see whether there is evidence of sustained research impetus two three or four years from 2012. At the time of writing a number of actions and expectations from the Project Action Plan (Appendix 1) are still outstanding. These include:

- The need to have research teams in each department
- Complete the book project
- Celebrate the five outcomes noted under Project Activity 3.

These notwithstanding, there are grounds for cautious optimism: the faculty of the Central Business School, Central University College (Ghana) are clearly geared towards improving themselves and their research profile.

Appendix 1 Project Action Plan
(Building a sustainable research Culture at CBS)

Project Activity 1: Formal set up
1. Discuss formal transformation of Dean's Research Club to Faculty Research Seminar Series
2. Do a baseline study of perceived research culture prior to Sept 2010 • 2a. Do a baseline study of perceived personal behs & institutional challenges mitigating active research • 2b. Articulate a set of Values, Behaviours and Artefacts which demonstrate and will sustain research culture
Milestone 1: Adoption of a Formal Paper on Building Research Culture @ CBS composed of outputs from 1–2b. Table at 1st Faculty Board Meeting of the 1st Semester 2011/12
3. Set up research teams in each Department
4. Set up performance monitoring document and Research Ethics Standard
5. Formalise Working Paper Series
6. Use survey results to determine additional activities required
Milestone 2: Presentation of the survey results/implications @ research seminar to commit all faculty to the outputs of 3–6
Project Activity 2: Research Agendas
1. Conclude research agendas of ALL faculty (as individuals) and also of the Research Teams
2. Identify Senior Academics to support each Research Team?
3. Outputs: • 1 international journal paper per Team; • 1 local journal paper per team • 1 Working paper per team • 1 journal paper each from 50 % of faculty members within 2 years • 1 Working paper per team • 1 Research based book per Department • Attendance at International Conferences
Milestone 3: Research Agendas, Personal and Team Contracts signed to deliver on outputs
Project Activity 3: Celebrating the Outcomes
1. Launch the Working Paper Series
2. Launch Books
3. Celebrate Publications
4. 2 Public Lectures from faculty Research
5. Survey to assess Research Culture
Milestone 4: Each of the activities and their timelines will constitute milestones

Appendix 2 Research Policy Document of CBS

RESEARCH POLICY DOCUMENT FOR CENTRAL BUSINESS SCHOOL (CBS); CENTRAL UNIVERSITY COLLEGE

Introduction and aims of the Policy

Central Business School is perhaps the largest Business School in Ghana in terms of range of programmes offered and student numbers. The School has however, for the most part of its 12 years history been focused only on teaching and has not build any reputation for research, knowledge generation, dissemination and rigorous intellectual pursuits. This state of affairs is inimical to students and the learning they should be deriving from lecture rooms and severely disadvantageous to the status, standing and capacity of faculty members. The only solution to this situation is a radical change in the academic culture of the School with particular emphasis on research, activities, intellectual discourse, dialogue and inquiry. To this end, this research policy document has been adopted by faculty Board as Board as a way of reinventing the culture and entrenching faculty commitment to research and to what it means to a true academic. This Research policy seeks the strengthening of business research systems at CBS and aims at contributing to the development of business and managerial knowledge by providing a framework at CBS for:

- The generation, dissemination and translation of valuable knowledge or research;
- The creation of ethical standard, norms and evidence-based research;
- The promotion, monitoring and implementation of high quality business and management research.

1. Significance of the Research Policy

CBS needs and adopts this research policy for the following reasons:

- It is a strategic document dilating on the university-wide mandate to teach, instruct, research, advocate and administer
- To fulfil one of the major objectives of the institution's existence;
- To boost research profile of the institution within a competitive environment.

2. Stakeholders of the Research Policy

The following are among the stakeholders who must benefit from the research policy and therefore need to be concerned about what happens with the research policy. They include:

- Faculty members of Central Business School;
- The Management & Academic Board of Central University College;
- Students generally but graduate students more especially, who will benefit from the research undertakings of faculty members;

In addition to these proximate stakeholders, business institutions and higher education sector in Ghana generally stand to gain from improved research at the Central Business School.

3. Key elements of the Research Policy

a. Research Values

- An enquiring mind & acceptance of intellectualism
- Acceptance of the 'publish or perish' frame
- Desire to see one's own works in print and the intrinsic satisfaction therefrom
- Acceptance of the scholarship of engagement (Boyer, 1990)

These represent the core values that CBS faculty will live by where research and knowledge generation efforts are concerned.

b. Support for research

- Faculty members must be encouraged to present their research at top national and international conferences.
- Financial support should be available to faculty members for organizing on-campus seminars or conferences.
- Faculty members can obtain grants for new research studies.
- Special incentives should be provided to encourage faculty to publish their work in journals.
- Research efforts should be coordinated by the Research Coordinator to assist faculty members with all their projects.

c. Personnel

CBS faculty by acclamation affirmed the appointment of a Research Coordinator. This person will report to the Dean and have the following functions:

- Coordinate all research activities in the School and keep each Department abreast with relevant research agendas.
- Ensure the monthly organization of research seminars, PhD research presentations and other forms of research interactions both on the off- campus as well as nationally and internationally
- Audit the compliance with this research policy

- Audit the compliance of Departments to research agendas agreed.
- Manage the publication of CBS Research Working Papers Series for which we have an ISBN Number.
- Apart from the Research Coordinator, Department Heads are the Research Officers of their Departments. The Dean is the owner of the Research Policy and is to promote research at all times through a variety of means.

d. Resources to support Research

Among several are the following:

- University Research finances administered through the Research and Conferences Committee.
- The Dean is to ensure that Research related activities are always provided for in the annual Budget
- CBS Research Fund
- Various leave such as sabbatical and study leave.

e. Research Outputs

CBS faculty members to commit to the following research outputs:

- Peer reviewed Papers in various academic journals
- Academic Books
- Conference Papers
- Public Lectures

4. Research Related Behaviours and Practices

Each Department is to have at least 3 clear Research Foci and a Research Plan to operationalize the foci. Each faculty member is to have at least 1 clear research project each year. Each faculty member is to join at least 1 international scientific association. Each Department is to have research teams made up of two or more members within the Department who commit to working on a series of common projects over a period of time. Each Department is to commit to making seminar presentations in rotation. Each Department is to commit to carrying out Ghana/Africa based thematic, theoretical as well as baseline/descriptive research in their particular areas.

5. The role of the Dean

The Dean is tasked to ensure the following:

- Develop a Research Focus/thematic areas for the School
- Mentor faculty on
    - Publishing to be known

    - Publishing to be promoted and
    - Publishing to make a contribution
    - Show how to target publication outlets; International Top Tier/choice of outlets
- Encourage the faculty seminar series and ensure its sustainability
- Encourage Strategic Collaboration
- Ensure there are sound research Ethical standards
- Inculcate a research culture by evaluating research performance of both the school and individual faculty members as well as leverage international good will and involvement of international scholars – such as getting external professors to come to Departments and interact with junior colleagues and graduate students
- Set up an Institutional Review Committee
- Financial empowerment by promoting a budget for research for CBS
- Lead HoDs to structure teaching in a way that offers time away from teaching
- Encourage greater use of graduate students.

6. CBS Structure

The following structures are now set up in CBS to ensure research is properly catered to:

- Research Seminar Series
- Research Committee
- IRB/Ethics Committee

7. Evaluation and Monitoring of Performance

To help keep track of staff research performance, the following will apply:

HoDs and the Dean will monitor individual performance of the various faculties against their research plans on the basis of agreed criteria and write to each faculty member (with cc to the University President on the outcome of the process) this will be done at the end of each calendar year (to avoid the pressure of end of academic year activities). The research performance of individual staff will be monitored and evaluated as part of staff development planning process. Staff will be required to provide full and accurate details of their research outputs on an annual basis to their Heads of Departments who will in turn forward the information to the Dean. The Research Coordinator will provide a report on the previous semester to the Dean on the research activities in the School within 2 weeks of the start of new semester. Once every 2 years a CBS research exhibition will be held to showcase faculty research outputs. The general public and university community will be invited to this exhibition.

Acknowledgements

This policy document was first produced in limited draft after a series of discussions at the Deans's Research Club meetings held at the Christ Temple Campus in 2011 and early 2012. The initial draft was put together by Dr. King Salami (then Head of the Department of Finance at Central Business School) who consulted a wide variety of local, international and internet resources. A later version was concluded after further work by Professor Bill Puplampu (Dean of CBS). The document was approved by the School's Faculty Board before the end of the 2011/12 academic session.

Dean CBS, 2012

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Strengthening the Centre of Research Excellence at Universitas Ma Chung at national and international Level

Leenawaty Limantara

Abstract

Higher education reforms happening in Europe, Africa, South-East Asia and all over the world demand changes at higher education institutions. The reforms are a consequence of globalization, expanding access to higher education, new technologies (computer, internet), new concept in public management, formidable competition, and convergence of higher education policies. Universitas Ma Chung as a new university in the midst of competition of 3,673 state and private universities in Indonesia, and universities around the globe, implements higher education management strategies employing a variety of approaches. This paper addresses one of its management strategies using the Project Action Plan (PAP) to strengthen the University Centre of Excellence aiming at sharpening and brightening the colour and excellence in the university research sector at national and international level through four activities which are expected to make impact internally, nationally, and globally. They are (a) a new grand design of the CORE Ma Chung Research Centre for Photosynthetic Pigments (MRCCP) in biotechnology, (b) creating the foundation of excellent research atmosphere, (c) strengthening the existing collaboration and the position in the international consortium, and (d) creating the national consortium in the core area of research. The result of the PAP implementation over eight months shows that (1) a project action plan is a reliable tool for initiating, planning, implementing, controlling, and evaluating a project to help an organization in making a project succeed by determining the time, place, person in charge (PIC), personnel involved, support needed, and is a measuring instrument to gauge detailed success with clear milestones. The PAP-implementation further shows that, (2) the right human resources are the main movers of PAP in particular, and organization in general. It is finally recognized that, (3) the execution of

PAP is determined by a number of internal and external factors that require the art of management and leadership.

Keywords: Higher education reforms, Project Action Plan, management strategy.

Background

The higher education management strategy, especially the one at a new university born in the midst of fierce competition, together with 3,673 state and private universities in Indonesia, needs meticulous and strategic institutional mapping, and has a specific colour to become excellent and quality-oriented. It is for this reason that Universitas Ma Chung decided to choose two particular colours of the University through (1) teaching-learning process prioritizing soft skills development and (2) research. The approach selected to reinforce the two specific colours of the University will be employed through project management. The project would specifically focus on planning, organising, motivating, and controlling resources to achieve unique goals and objectives (Nokes, 2008) The Project Action Plan (PAP) reviewed below expounds PAP approach having a SWOT analysis background on the existence of Universitas Ma Chung in Indonesia, in the city of Malang, East Java, in particular. This city has 52 institutions of higher learning, consisting of 4 state universities and 48 small and big private universities, with the total population of 3,267,294, total area of 3,087.11 km^2 (BPS Malang City, 2011), and is known as a city of education, tourism, and industry having *Tri Bina Cipta* as its vision. It roughly means 'Three commitments to develop and innovate' in education, tourism, and industry. Malang is a city that reflects the intensity of competitive spirit and challenge in achieving the managerial excellence of higher education.

Reforms of higher education in Europe, Africa, South-East Asia, and the world over are inevitable. Reforms were partly triggered by the Bologna process (with its meetings in Bologna (1999), Prague (2001), Berlin (2003), Bergen (2005), and London (2007) where higher education applied the framework of increased financial flexibility and decentralized responsibility (Gaethgens and Zervakis, 2007). University governance has been adapted in many countries (Mayer, 2008). Generally speaking, as in other developing countries, Indonesia's universities have no specific research field yet that can meet local and national needs, as research requires relatively expensive infra-structure and there is no comprehensive and up-to-date mapping/database in relation to local potentials.

These aspects give the writer – as a participant of the International Deans' Course (IDC) 2012–2013 from Ma Chung University – the background to choose a PAP theme in the field of research aiming at strengthening the university excellence research centre with the objectives of: (1) producing a new grand design for the CORE Ma Chung Research and Development Centre (MCRnDC). The design is to make the Centre the colour of Universitas Ma Chung by conducting research, especially on pigments. By concentrating on pigments, the Centre is expected to become a reference point of pigment in Indonesia and probably many other South-East Asian countries. As far as the writer is concerned, there is no pigment research centre in Indonesia as yet; (2) creating the foundation of excellent research atmosphere; (3) strengthening existing collaborations and enhancing MRCPP existence in international consortium; and (4) developing biopigment consortium at national level.

The impact expected to emerge from PAP application will include: (1) International impacts: gaining international recognition which would result in extensive networking and research support (in terms of equipment, expertise, and joint publications); (2) national impacts: as a pioneer/leading research centre in the field of natural pigments through initiation of a strong consortium and the possibility of securing national research grant and (3) internal impacts: to increase capacity building of researchers (professional development in research fields), increasing publications, research proposals, research grants, and collaborations.

The decision regarding the objectives, activities, and impact in PAP is crucial and needs time allocation, reflection, and profound analysis, which put forward the organizational needs, project resources, budgets, and penetrating risk analysis.

Project Action Plans (PAPs)

The Project Action Plan is one of the reliable tools in changing the nature of university governance, strategic faculty management, and quality management in an integrated manner and systematically exerts a changing impact on managerial routineness which so far has been undertaken by organizations (Mayer, 2008). As the PAP approach also reflects the environment outside of the organization system, it involves a number of stakeholders and the result makes a significant impact on the advancement of the organization which in its implementation requires intellectual and social challenge. The PAP has become a reliable tool in the hands of leaders who are yearning for the development of organizations which would lead to continuous progress. Presumably, educational institutions that apply PAP would have sustainability and progress as the major elements in PAP also contain financial, institutional, and policy level sustainability. It is the understanding of this PAP which provides the writer with a background to try out the reliability of this tool in making the unique colour of Universitas Ma Chung more vivid in the field of research.

Activities developed in PAP

There are four activities developed in PAP strengthening the centre of research excellence at Universitas Ma Chung at national and international level, which is described using rationales/background of the implementation of the activities and in the form of PAP matrix as follows:

Activity A: New grand design of The CORE Ma Chung Research and Development Centre in biotechnology (MRCPP)

Since Universitas Ma Chung was established on 7 July 2007, Ma Chung Research Centre for Photosynthetic Pigments (MRCPP) has been initiated as the University excellent research pilot project. Even with the awareness and the limitations of infrastructure, the strategy of executing MRCPP as a pilot project has been developed with the spirit and full consciousness of the founders as well as Universitas Ma Chung leaders of the important value of research as one of the spearheads and unique colours of Universitas Ma Chung. It took four years for this centre to consistently carry out its management strategy so that its existence at national and international level can be shown. Since 2011 MRCPP has joined the international consortium of PARC (Photosynthetic Antenna Reaction Centre) under the US Department of Energy, USA, representing Indonesia and South-East Asia whose existence and activities certainly need to be supported by various activities, such as building laboratory facilities (through the launching of the CORE Ma Chung Research and Development Centre); satellite meetings by inviting leaders/researchers from outstanding institutions in Indonesia to introduce MRCPP; and convening of the international conference of Natural Pigment Conference for South-East Asia (NP SEA)

The background to reinforce the existence of MRCPP at this international level is laid as an important foundation in positioning MRCPP of Universitas Ma Chung at international level, and it will certainly make impact at national level and also within the institution. The strengthening of human resources, infrastructure, and system was combined with the execution of an international seminar. The seminar had been initially thought up and ran successfully in 2010, that is the Natural Pigment Conference for South-East Asia (NP-SEA) I. NP SEA will become one of the endeavours to strengthen the consortium at international level by inviting various potential resources from Ludwig Maximilian University, Germany; Glasgow University, the UK; Osaka City University, Japan; Renmin University, China; and Commissariat à l'énergie atomique et aux énergies alternatives (CEA), Institut de Biologieet de Technologies de Saclay, France. Consolidation of research collaboration will be planned during the conference.

Furthermore the PAP is described in the PAP matrix as follows:

PAP matrix of Activity A

New grand design of The CORE Ma Chung Research and Development Centre in biotechnology (MRCPP)	My role?	When?	Who?	Who else?	What Support?	How to measure?
A.1 Writing up the new grand design of MRCPP: • Identification of current condition (internal and external factors); • revise goals, objectives and strategic plans • design the roadmap	Sharing the commitment and idealism to bring MRCPP as a core research excellence of Universitas Ma Chung	July 1–31	Board of Trustees Vice rectors Director of MRCPP Dean of Faculty of Science and Technology	Human Capital Department Senators; Study centres; Research centres; Academic advisors	Written statement about the core research excellence in academic policy of the University Meeting room, LCD, computer,	Grand design concept: Approved by Board of Trustees and Senate SWOT analysis Strategic Plan Roadmap
<u>Milestone A</u>: **New grand design (1 October 2012): It includes SWOT analysis, roadmap, MRCPP strategic planning. This grand design will be provided with a decree regarding MRCCP as the centre of research excellence at Ma Chung University**						

Activity B: creating the foundation of excellent research atmosphere

An excellent research atmosphere is a crucial condition that the Research and Development Centre needs in supporting the acceleration and progress of research at the University. There are two kinds of atmosphere in any educational institution that need to be evaluated: academic atmosphere and research atmosphere. At Universitas Ma Chung, we only have the instrument to measure academic atmosphere, but no instrument to calibrate research atmosphere yet. As we have successfully measured our academic atmosphere and used the result to improve Universitas Ma Chung, as a result we were accredited by the Ministry of Education and Culture even when we had not produced graduates. Thanks to our regular academic atmosphere evaluation, as a young university we have been included as one of the best universities in East

Java. Based on this and the experience of our Directorate of Quality Assurance we should be able to evaluate our research atmosphere with confidence.

PAP Matrix of Activity B

Creating the foundation of excellent research atmosphere	When?	Where?	Who?	Who else?	What Support?	How to measure?
B.1 Tenure system + KPI (publications, research funding, collaboration) B.2 Research facilities + research grants+ Incentives B.3 Recruiting excellent researchers B.4 Internship	August – March 2013	Universitas Ma Chung	Committee: consisting of a special team representing excellent research centre, lecturers, and researchers Human Capital Department	Head of Human Capital Department Head of MRCPP Applicants (Researchers), Interns	Rector's Decree 7-floor RnD building Allocation of Research budget	Online evaluation toward facilities, academic atmosphere and related issues Outcomes from internship activities Number of research proposals Number of research grants Number of collaborations Number of publications

Milestone B:
Tenure system+KPI (October 2012);
Research facilities will be obtained through CSR proposal, grant from internal institutions, and international grants
(1 year target);
research grants (2 national competitive grants, 1 international grant);
recruiting excellent young researcher (3 staff);
Internship (2 staff)
Field trip and gathering (all members)

Excellent research atmosphere will be evaluated by evaluating the progress of MRCPP work program for the last two years seen from the number of collaboration, the number of research grants, the number of publications, and the scope of internship activities.

Activity C: Strengthening the existing collaborations and the position of MRCPP in the international consortium

Since 2011, MRCPP has joined the international consortium of PARC (Photosynthetic Antenna Reaction Centre) under the US Department of Energy whose existence and activities need to be supported by various activities, and NP-SEA will become one of the efforts to strengthen the consortium at international level by inviting various potential resources from Europe, Japan and China. Consolidation of research collaboration will be planned during the conference.

PAP Matrix of Activity C

Strengthening the existing collaborations and the position of MRCPP in the international consortium	When?	Where?	Who?	Who else?	What Support?	How to measure?
C.1 Launching The Core: Ma Chung Research and Development Centre (MCRnD)	7 July 2012	The CORE: MCRnDC building	Head of MRCPP (acting as Committee chairperson Launching The CORE: MCRnDC Committee	Head of National Research Board (Prof. Dr. Andrianto Handojo) Board of Trustees Ma Chung University leaders and Faculty members Invitees (researchers from universities and industries)	Building. THE CORE: MCRnDC Launching cost to invite 150 guests from all over Indonesia and South East Asia Committee decree	Launching implementation Picture-taking of the inauguration of THE CORE MCRnDC Report of the committee's accountability

Strengthening the existing collaborations and the position of MRCPP in the international consortium	When?	Where?	Who?	Who else?	What Support?	How to measure?
C.2 Satellite meeting to initiate biopigment consortium in Indonesia	7 July 2012	THE CORE: MCRnDC	Head of MRCPP (Committee chairperson)	Researchers from BPPT, Sinar Mas, PT Indoalgae, ITB, Universitas Negeri Malang, Universitas Brawijaya, Universitas Kristen Satya Wacana, Universitas Surabaya, Universitas Ma Chung, Universitas Diponegoro	One-night hotel accommodation Seminar facilities (rooms, lunch and dinner, nacks, and seminar kits)	The consortium agreement. Picture-taking of discussion activities during the consortium establishment
C.3 Conducting Natural Pigment Conference in South-East Asia (II)	12–13 July 2013	THE CORE: MCRnDC	NP-SEA 2013 Committee	Keynote speaker Prof. Richard J. Cogdell (Glasgow University UK) Invited speakers from Germany, China, France, Japan, South East Asia Academics and researchers from South-East Asia with the target of 150 participants	Committee Seminar rooms and all their facilities University bus and cars Initial funds (the committee will also find sponsorships)	Website, brochures, and Holding of the Natural Pigment Conference for South East Asia (NP-SEA) 2013.
Milestone C: **Launching THE CORE MCRnDC (7 July 2012)** **Satellite meeting (7 July 2012): Initiation of biopigment consortium in Indonesia** **NP-SEA Conference 12–13 July 2013: website, brochures, sponsorship**						

Activity D: creating the national consortium in the core area of research

The non-existence of a national consortium in biopigment research is the main reason the MRCPP initiates the formation of biopigment consortium by involving research centres and universities whose mapping is considered very strong in biopigment research, they are ITB, BPPT, UNDIP, UMM, Universitas Negeri Malang, Universitas Brawijaya, UKSW, Universitas Surabaya, Tanjungpura University, PPKS Medan, and industries (PT Indoalgae akuakultur, PT Synergy worldwide, Sekar group) The consortium should become a tool in supporting the synergy of research, such as joint research proposal making, joint research grant acquisition, and joint publication. The parameters to be measured in the initiation of consortium are the draft of consortium, joint research proposal, and MOU-MOA. The draft of consortium should clearly indicate that the MRCCP initiates any MOU or MOA for any collaborative enterprise and how the success of the joint project should be evaluated.

PAP Matrix of Activity D

Creating the national consortium in the core area of research	When?	Where?	Who?	Who else?	What Support?	How to measure?
D.1 Preparing consortium draft and sending it to members for signature.	July–August 2012	Indonesia/ national level	Present collaborators (RC and industry); prospective collaborators (RC and industry); Government (BPKLN; East Java)	MRCPP researchers Relevant association/ pro-fessional organization such as HKI, PATPI, HP2I. DAAD Alumni	Staff handling correspondence, drafting, database management	Consortium draft Correspondence Member database
D.2 Conducting satellite meeting (Researcher-industry-government)	13 July 2013	THE CORE: MCRnDC	Consortium members	Director THE CORE: MCRnDC	Meeting rooms and their facilities	Collaborative research proposal
Milestone D: **Consortium among several research centres in the field (Diponegoro University, Muhammadiyah Malang University; Satya Wacana Christian University; Universitas Surabaya, Brawijaya University; Malang State University; Tanjungpura University, BPPT; Industries)** **Follow-up of consortium activities are collaborative research and collaborative proposal with the funding from the Directorate of Higher Education/Research and Technology Ministry (3 proposals/year).**						

Outcomes of PAP

The implementation of PAP planned for one year was carried out in eight months with outcomes summarized in the following table:

No.	Activities	Outcomes	% achievements
1.	Revising the grand design of the CORE Ma Chung Research and Development Centre in biotechnology	New grand design	100 %
2.	Creating the foundation of excellent research atmosphere	Human resources Research facilities Tenure system Monitoring and evaluation system	50 % 50 % 100 % 100 %
3.	Strengthening the existing collaborations and the position of MRCPP in the international consortium through Natural Pigment Conference in South East Asia part II	International conference Joint research projects	50 % 100 %
4.	Creating the national consortium in the core area of research	National consortium in natural pigments research	100 %

The PAP ran on schedule as planned. Generally, the obstacles were due to communication problems and bureaucracy which were beyond the capacity of institution, such as the delay in obtaining signatures regarding the approval for national consortium membership involving several universities in cities in Java and Sumatra.

Key to success

The key to success in implementing the PAP is determined by a number of factors such as (1) the role of a rector accelerates decision making, activity implementation, and integration of cooperation among units and staff. When the organization's highest leader has conviction of the importance of a project, generally s/he will help anyone carrying out PAP to get facilities and support in implementing the project. This key role must become a guide for whosoever is implementing PAP, and s/he should effectively communicate with the organization leader.(2) MRCCP has been operated as a pilot project at Universitas Ma Chung since 2007 and has proven itself as an excellent research centre for the following aspects: (i) the number of publications, research grants secured, and collaboration, (ii) representing South-East Asia in the PARC Consortium, under the support from Department of Energy, the USA, (iii) becoming a pigment research reference in Indonesia, (iv) Universitas Ma Chung members' acknowledgment and (v) Board of Trustee's support; (3) selection of the person in charge and committee with accurate formation (the conceiver should also be the executor in the committee); (4) assertion and commitment to work according to PAP; and (5) a strong conviction that PAP will succeed (PAP remainder which has not been done) based on work experiences conducted so far.

Lessons learned

PAP undertaken for eight months has given the organization many things, such as the art of implementing strategic management and leadership using simple and reliable tools in initiating, planning, implementing, controlling, and evaluating a project to help organization in making a project succeed by determining the time, place, PIC, personnel involved, support needed, and is a measuring instrument to gauge detailed success with clear milestones. Through this PAP, obstacles can be overcome with some concrete lessons such as:

(A) selecting and deciding strategic projects based on awareness that internal and external organization conditions through meticulous mapping and analysis is extremely important. Strategic projects with clear goals, which are then presented in a simple PAP matrix, produce management simplification which would enable the project executor to carry out the project effectively and efficiently;

(B) finding a capable leader and a reliable group to carry out the projects. The PAP prime success is very much determined by the human resources involved in the PAP, the leader and the PAP members. When a project is controlled by a leader and persons who are capable of executing their tasks, have tenacious belief in the importance of the project, work in a harmonious teamwork, and the leader is willing to walk extra miles, led by example, walk the talk, and has the ability in optimizing the participation of all members, fifty per cent of the PAP has actually been completed;

(C) effective communication is the main glue between the leader and the team members, among team members, and between the team and external parties. Many times based on the experiences of running an organization, it is communication that becomes the main cause for success or failure in implementing organization vision and leadership. Therefore, the emphasis on communication is a must, and it is seriously employed as the main criterion to choose a person in charge and his/her team.

The fourth lesson obtained from this PAP is (4) networking with good partners. The power of networking with good partners is only possible if the organisation is trustworthy, in a mutual position, based on trust and it emerges due to good acquaintance among each other. By believing that every human resource in an organization brings and has their own networking, a leader should be sensitive in using the networking power and delegating strategic domains mastered by the team to be done by individuals competent in their respective fields.

The PAP tool was firstly implemented at Universitas Ma Chung, and it has proven to deliver a number of valuable lessons which made improvement possible, and which gives additional strategies in higher education management.

Conclusions

After having implemented the PAP "Strengthening The Centre of Research Excellence at Universitas Ma Chung at national and international Level", several important conclusions can be drawn as follows:

1. State of affairs: Originating from one PAP activity (Strengthening the Centre of Research Excellence at Universitas Ma Chung at National and International Level), MRCPP of Universitas Ma Chung has an opportunity to develop *East Java as the centre for Indonesia seaweed downstream products* (MOU and MOA are still in process)
2. Key to Success: (1) capability/execution power of PAP executors; (2) clarity of goal setting and process; (3) clarity of division of assignment and time; (4) cooperation.
3. Next milestones/next steps of action: (1) *in relation to current PAP:* implementation of the Natural Pigments – South-East Asia 2013 conference; and making MRCPP a "Science Shop" for East Java Province; (2) *Implementing new PAP* on several projects, especially the writer's role as Humboldt Ambassador; involvement as the person in charge in upgrading professionalism of science teachers in Malang City and PAP to make East Java the centre of Indonesia seaweed downstream products.

In the final analysis, PAP is only a method, a tool, which is kept alive by human beings who know the importance of art in leading, implementing tasks and their responsibility in an organization by upholding their lofty ideals as God's masterpiece. The following aphorisms have become the power which can be used to sustain PAP:

> An empowered organization is one in which individuals have the knowledge, skill, desire, and opportunity to personally succeed in a way that leads to collective organizational success (Stephen Covey)
> The result ... is an organization that has developed the most vital core competence of them all – the ability to execute its strategy (Gary Harpst)

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Quality Management at the Faculty of Environmental Studies at Chepkoilel University College, Kenya

Grace Cheserek

Abstract
This paper discusses quality management in the Faculty of Environmental Studies at Chepkoilel University College with specific emphasize on the crucial role of a Head of Department in initiating, maintaining and achieving quality outputs in all areas. This paper discusses quality management at the Faculty and key factors to consider to improve quality management in the Department of Applied Environmental Social Sciences. The roles, duties and responsibilities of a Head of Department and the Quality Assurance Director are presented and discussed. The paper further discusses the challenges and opportunities for the Head of Department and Dean of Faculty that enhance quality management of academic programmes, procedures and students.

Keywords: Research funding, Staff development, Higher education challenges, Quality assurance.

1 Introduction

Chepkoilel University College is a constituent college of Moi University established by Kenya Gazette Legal Notice number 125 of 13th August 2010. The College is semi- autonomous in most administrative and academic activities except in matters of examinations and conferment of degrees. Prior to elevation, Chepkoilel has been a Campus of Moi University specializing in science based subjects since 1988. Currently it has a student population of 8,000 pursuing bachelors and postgraduate studies in these schools: agriculture and biotechnology, business and management sciences, education, environment, engineering, natural resource management and science.

Quality in higher education is perceived as consisting of a synthesis of conformity, adaptability and continuous improvement. Quality is often defined as “fitness for purpose” and “standard-based”. The Commission for Higher Education (CHE) uses both approaches in its quality assurance processes. On the other hand terms related to the concept of quality are: assurance, control, assessment and audit. Quality assurance is the mechanism put in place to guarantee quality education (CHE 2008). Quality is also seen as value for money. This concept focuses on efficiency and effectiveness of a programme by measuring outputs against inputs. Something is considered to have quality when it meets the expectations of the consumers (customer satisfaction) (Cheserek, 2010).

Total Quality Management (TQM) to higher education in general and consideration of the contextual and power relations issues associated with implementation of TQM, a model for integrating its principles into the faculty recruitment, identification and selection process will be outlined. This model relates the role of vision, mission, planning and organizational design with quality concepts (understanding a system and systems theory, leadership, empowerment, client/constituent satisfaction, team building, and continuous process improvement). Drawing upon Marchese and Lawrence’s (1987) work wherein they identified eight critical processes in the selection of faculty, one critical process – “Defining the job” – is specifically analyzed using the continuous improvement methodology as an example of the specific application of TQM techniques to higher education decision making. The model and this example provide educational leaders with an enhanced framework within which they can effectively analyze and evaluate faculty selection processes, criteria for selection, and relevant contextual issues that will result in the identification and selection of the best qualified faculty available.

The objective of the paper is to integrate the TQM model and its principles in faculty management at Chepkoilel university college (CUC). This will be understood by first looking at the college vision that is ‘to be a leading institution in the provision of cutting edge research, teaching, consultancy and outreach.’ The mission is ‘to develop high quality graduates and professionals in education, training, research, consultancy and outreach for national and international clientele.’ The core values are: leadership and responsibility, transparency and integrity, service delivery and customer satisfaction, gender equity and responsiveness, visibility and competitiveness. The strategic objectives include: excellence in teaching, research, consultancy and outreach; advance in science, agriculture and technology for sustainable development; train and develop informed practical, innovative and self reliant graduates; nurture and uphold corporate social responsibility; source and optimize the use of resources for education and training to achieve set goals.

2 Faculty Management at Chepkoilel University College

Chepkoilel University College is headed by the Principal and two deputies who manage the day to day activities assisted by a management committee. The principal is the chief executive with overall responsibility in directing, organizing, administration and academic programmes. He is assisted by the Vice Chancellor and management board. The college Council consisting of nine (9) members appointed by the Minister are responsible for policy and hiring senior university college staff; whereas the Chancellor awards degrees. The two deputy principals are in charge of (1) administration, planning and finance and (2) academic and student affairs. Chepkoilel University College Organisation Chart in 2012is shown on Fig 1 below, with bolded areas to indicate area of focus in this paper. The college management board consists of the principal, two deputies, finance officer and the two registrars' in-charge of academics and administration. The college academic board consist of the following: professors, management, deans and directors, heads of teaching departments, librarian, dean of students and two student representatives.

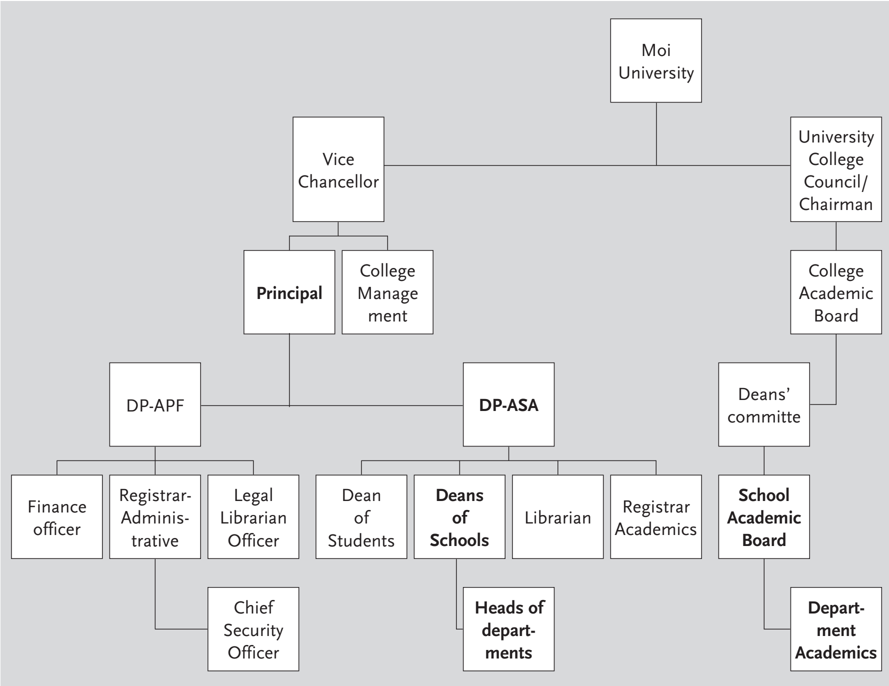

Figure 1: Chepkoilel University College Organogram

3 Faculty of Environmental Studies

The School of Environmental Studies was established in 1990, due to the rising global interest in environmental concerns particularly in pollution, human settlements, urbanisation, agriculture and industrial development. The School of Environmental Studies (SES) has four departments namely: applied environmental social sciences (AESS), environmental biology and health (EBH), environmental earth sciences (EES) and environmental monitoring, planning and management (EMPM). These departments offer two bachelor's degrees in environmental science (Arts and Science). There are seven post graduate programmes at master's and PhD, namely environmental biological sciences, health, human ecology, law, economics, planning and management, information systems and physical sciences. The school has over twenty teaching staff all with PhDs in their respective fields. The student population is approximately 600. The leader of the school is the Dean and Heads of Departments (HoD). The decision making boards are academic board and management. A similar structure is replicated at the department with department boards and management. The links are shown in Fig 2.

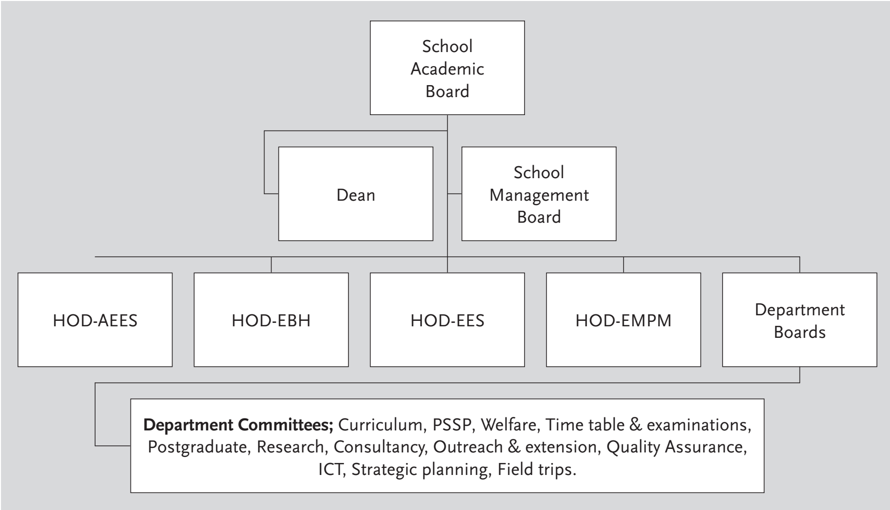

Figure 2: Faculty of Environment Organisation Chart

4 Roles and Responsibilities of Heads of Departments

The roles and responsibilities of a Head of Academic Department (HoD) are vast as shown in Fig 3. According to the CUC statues 2012, HoDs are competitively recruited from among internal staff members at the level of senior lecturer. Qualified persons will apply, undergo interviews and be appointed for a one term of four years non-renewable. This will be done in cognisance of Kenya's constitutional spirit on gender rule and leadership and integrity. The CUC is in the process of developing terms and service of HoDs, but uses Moi University to avoid a vacuum in leadership. We hope the terms will clearly stipulate and streamline all duties and responsibilities of HoDs.

The common responsibilities of Heads of Academic Departments include;

a) Admissions – receive admissions from Joint Admissions Board (JAB) – undergraduate, process "Privately Sponsored Students Programme" (PSSP) undergraduate, process masters and PhD applications, conduct interviews for PhDs

b) Teaching – course allocation to teaching staff, teach mandatory one course per semester and supervise teaching for all courses in a semester both undergraduate and post-graduate.
c) Examinations – receive draft examination papers, coordinate department moderation, liaise with external examiner for external moderation and submit final examination papers to officer in-charge. During examination time the HoD is the chief invigilator making sure all examinations are invigilated and scripts collected and stored according to university approved examination regulations 2009. Later coordinate marking and collating marks for each course (individual marks) and for all students (consolidated marks) in the department. At the end of each academic year, all student results are discussed with department examinations board and forward to faculty examination board for discussion. Immediately the faculty board has discussed results, it will give verdict to all students subject to approval by the college academic board. The university senate has the final verdict for all examination results for undergraduate and post-graduate students.
d) Consultancy – co-ordinate individual and department consultancy activities and collaboration.
e) Research – co-ordinate students', staff and other inter-disciplinary/collaborative research activities.
f) Staff development – receive applications, constitute a short-listing committee and make recommendations for promotion and training.
g) Curriculum review and development – coordinate review of existing curriculum every four years and develop new curriculum.
h) Staff welfare – promote teaching and non- teaching staff welfare including annual leave, compassionate leave, leave of absence, sabbatical.
i) Postgraduate supervision – allocates supervisors for post graduate students; recommend thesis internal and external examiners.
j) Planning and budgeting – prepare annual and quarterly activities and budgets for the department.
k) Procurement of goods – initiates the procurement of department equipments, stationery, teaching materials, staff/student computers and ICT.
l) Quality assurance – in all processes at the department, using statutes, rules, regulations and policy direction. This means HoDs should be conversant with legal documents, policies and well as rules and regulations governing all sectors of activities. The challenge is availability of all documents for use

at department. It is therefore prudent that the Director of QA provides all reference documents to all academic departments to ease adaptability and compliance.

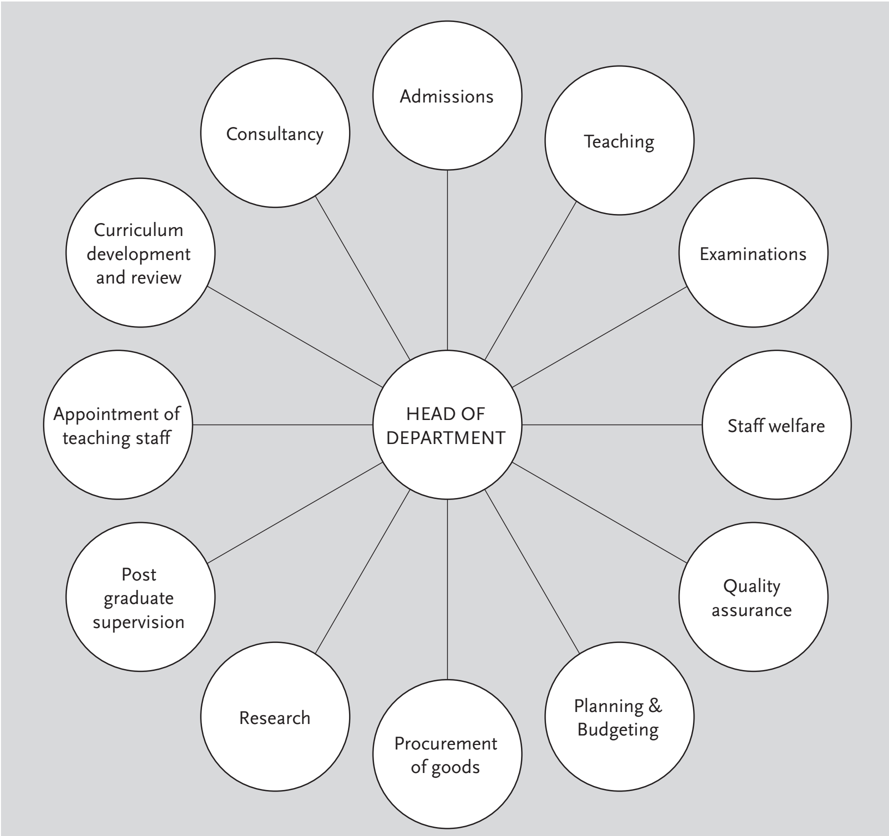

Figure 3: Roles of a Head of Department

A major short coming of faculty management at the department is the lack of a structured system of staff development. My experience from German Universities is that each department is headed by a Professor, with several senior lecturers and lecturers below. The Professor is able to access funding from the central government research fund and other sources to build capacity for their staff and students, of whom they have PhD and masters in the same department. We would like to try this system in the department of applied environmental social sciences and evaluate its effects on quality management of curriculum and staff development. We would require facilitation and support from the College management and other well wishers to achieve the structure over-haul. The structure will be as shown on Fig 4.

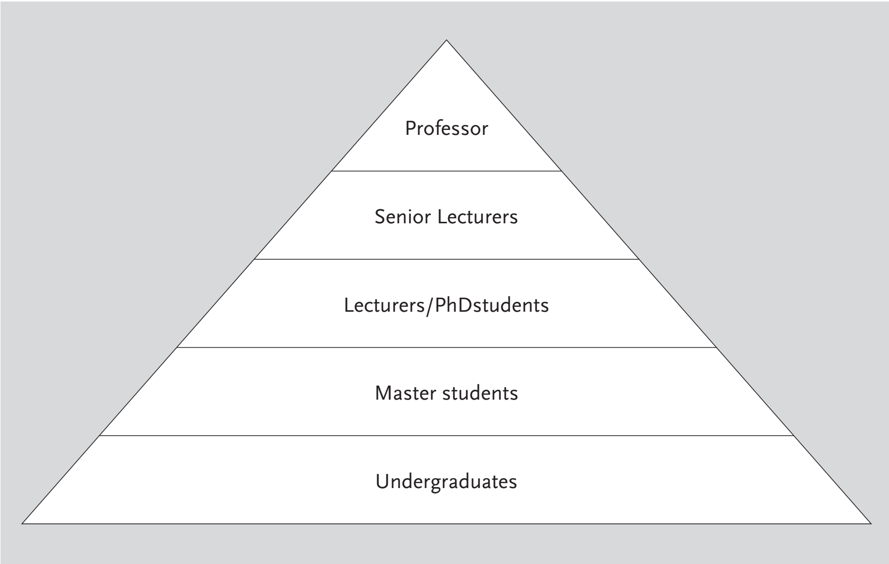

Figure 4: Proposed Department academic structure

The department of Applied Environmental Social Sciences (AESS) will develop committees in the twelve (12) areas of concern, each headed by a Chairperson who will be responsible to the HoD. Each Chairperson of committee will develop strategic objectives and a plan of action in line with department goals and will be facilitated using AESS department funds. Each committee will organise their independent meeting to discuss their action plan and report to department meeting on a quarterly basis. At the end of each academic year, the performance of all committees will be assessed and evaluated on outcome and quality assurance basis. The leading committee in terms of achievement will be rewarded. The overall objective of AESS department will be to improve student enrolment, maintain quality management, customer satisfaction and produce world class graduands who can work anywhere in the world.

5 Directorate of Quality Assurance

Recently the college appointed a Directorate for quality assurance. Though this is the right direction for managing quality in all sectors of the CUC, a lot needs to be done to comply with CHE rules and regulations for internal and external evaluation. Critical in this area is quality in curriculum development, student admissions and examinations processing. Fortunate for the Director, is that some staff already are trained in quality management systems (QMS), organised by Moi university in 2010. The Director should identify these staff to form his committee and streamline quality at the department level.

The Directorate should compile quality assurance (QA) regulations for each of the HoD's responsibilities to provide a level ground all departments. This is an uphill task, but management needs to prioritise. However to make the process easily achievable, the director QA should liaise with respective HoDs to develop QMS drafts based on Moi University procedures 2009. The quality assurance in the areas of students (admissions and examination), infrastructure, administration/support services, teaching staff, suppliers and graduands is mandatory. QA at the faculty is a process; with inputs, processing, outputs as shown in Fig 5.

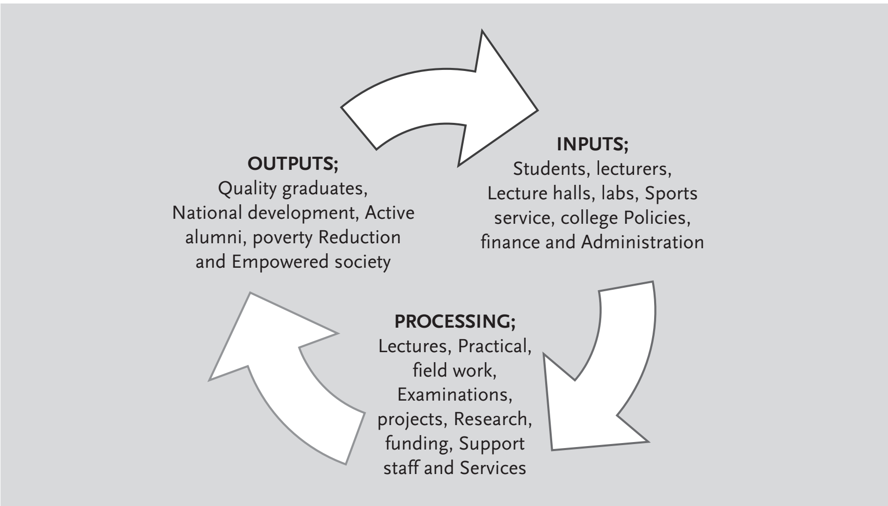

Figure 5: Proposed Department academic structure

6 Challenges and Opportunities for Faculty Quality Management

6.1 Challenges in Faculty management

6.1.1 Training – lack of priority in staff development both teaching and non-teaching.

6.1.2 Seminars – Induction for HoDs, Deans, Directors, Committee members and Chairpersons of Committees. Immediately you are appointment to these offices, one is left to meander into their duties, responsibilities and expected output. Thus there exists a lack of harmony in achieving the institutions goals and objectives.

6.1.3 Supervision – the period it takes to graduate masters and PhD students is too long, due to delays in processing proposals and thesis. The crucial delay is between data collection, analysis and thesis writing. This problem arises due to lack of focus from the student.

6.1.4 Funding – funding for developing new curricula; writing research proposals; attending conferences and workshops; journal publications and professional training (such as IT, management, leadership etc).

6.1.5 Incentives – department staff requires incentives such as Christmas holiday, shows and fairs, vacation/leave, team building and bonding sessions, annual and quarter lunches. This will boost their need to belong and improve productivity. Some staff work extra-hard to meet institution goals and yet there is no award to appreciate them. Some staff have patents, others have won national and global awards, whereas other have received Presidential commendations. Yet none gets recognition from the College.

6.1.6 Research – research funds are currently disbursed through the National Council for Science and Technology (NCST). Kenya has set aside 0.05 % of GDP as research funds that are transferred to NCST for disbursing to researchers. The challenge is that at NCST, scientist from public and private universities compete for funding. Scientists are required to write proposals that and conduct multi-disciplinary and multi- institutional research. This becomes an obstacle for scientists who are interested in pure or applied sciences research. The funding from government is insufficient due to high demand from scholars, only about ten (10) proposals are funded each year ranging from Kshs 3–15 million only. The fund does not support equipments; hence researchers are required to use university laboratories and other equipments.

6.1.7 Infrastructure – infrastructure development at the university college should be upgraded. The student population rose from 3,500 in 2009 to 8,000 in 2012, with little investment on laboratories, lecture rooms, staff offices and environmental management. As a result the lecture rooms are congested and labs are overcrowded. Lack of conducive work environment for lecturers' leads to stress and low productivity. Thus there is the need to expand on existing infrastructure for effective and quality teaching for students

6.2 Opportunities for Faculty quality management

6.2.1 Develop capacity of Deans and HoDs in management and resource mobilization and not resource utilization. Currently each one of them is busy spending and not attracting funds. This can be achieved by facilitating short courses on programmes sales and marketing; customer care and satisfaction, corporate management and strategic leadership.

6.2.2 Professional training for teaching and non- teaching staff at fifty percent cost in and outside the university. Any staff who is interested in improving their performance of tasks should be facilitated and the convenience of both parties. This will boost the general staff morale and productivity.

6.2.3 There is need to establish stringent measures to ensure post graduate student's progress is closely monitored to avoid delays. The department should develop monitoring tools to ensure that postgraduate students complete their programmes on time. Students and supervisors should be provided adequate assistance to write fundable proposals by local and international grants giving institutions.

6.2.4 Incentives should be provided for academic staff who graduated masters and PhD students, those who publish articles and those who bring research funds to the university. The University of Fort Hare in Republic of South Africa (RSA), for example pays 6,000 R for one PhD, 4,000 R (R=Rand) for one Master and similar amount for every publication. As a result of these incentives, they produce the highest number of PhD students and highest number of publications in South Africa. Fort Hare University is ranked highly due to this fact. Most universities in RSA, support their staff in proposal development, paper presentations at conferences and publication processes. This is a good incentive to enable academic staff development and to promote the faculty both nationally and globally.

6.2.5 Annual or quarterly organised brainstorming sessions and team-building activities have been proved to improve attitudes and motivate workers to be productive. Team building activities are the most effective ways to reduce stress, ensure group focus, improve attitudes and get your group to learn how to work together towards achieving common goals and maintain relevance and competitive edge in a dynamic market.

6.2.6 Research funding is crucial to the development of new theories, technology, solutions to current problems and spur national development. Research funding at the national level should be increased to 5 % of GDP and disbursed directly to academic departments in institutions of higher learning. The NCST should be converted to National Research Fund (NRF) which will fund all quality proposals on science, technology and innovations. Chepkoilel University College should put aside 3 % of its total income for research to promote staff PhD training, publications and promotions.

7 Conclusion

Faculty quality management at a university college is complex and multi-disciplinary. It needs the efforts of Head of Department, Dean, management, Council and student leaders to improve and keep improving. The HoD is key to achieving quality management of any faculty in the college, hence the need to appoint capable, willing to learn and dynamic academic staff to head these important harm of the university.

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Integration of Total Quality Management (TQM) into the UPLB College of Agriculture Instruction/ Academic Programme

Christian Joseph R. Cumagun and Clarita T. Dagaas

Abstract

The College of Agriculture (CA) of the University of the Philippines Los Baños (UPLB) has engaged in developing a Total Quality Management (TQM) programme for instruction by forming an Ad Hoc Committee for TQM and holding regular seminars and training of the staff with a TQM expert. The main function of the programme is to improve students' performance in class through enhancement of teaching. A new Student Evaluation for Teachers (SET) has been developed based on the principles of TQM and pilot tested to a basic course in crop protection consisting of 125 undergraduate students. The SET was administered at mid- and post-semester. There was an increase in SET scores at the post-evaluation period. This mid-evaluation strategy would be useful in allowing time for the faculty to improve performance in teaching by addressing the students' comments at mid-evaluation. A TQM structural framework has been proposed for the College which will aid in the implementation by continually providing the faculty with the training and support they will need to implement the TQM principles in teaching successfully and eventually transform the CA as TQM model college for UPLB.

Introduction

Total quality management (TQM) is a management approach that centers on continuous process improvement through universal participation. It aims for long-term success through customer satisfaction and benefits all members of the organisation and the society (Jacob, 2012). The concept of TQM means getting every person in the academe to evaluate continually and aggressively how every job, every system, and every output/product can be improved. It is based on the participation of all members of an organisation in improving processes, outputs/products, service and culture in which they work (Babbar, 2004). Chowdhury (2008) stated that a quality worker can produce quality product, a quality leader can see the invisible, and quality teamwork can achieve the impossible.

The University of the Philippines Los Baños College of Agriculture (UPLB-CA) faces a big challenge to generate more student enrolees for the College, improve faculty and students' performance and motivate students to graduate on time. In the Philippines, there is a 36 % reduction in enrolment in agriculture within 1998–2008 (De Vera et. al., 2011). Lalican (2011) reported that the graduates in 1988–1996 were able to finish the BS Agriculture programme for an average of 10.59 semesters or 5.2 years (Fig. 1). The new freshmen in 2010 for BS Agriculture were mostly from the waitlisted students unlike in 2000 and 2001 where most of the new students were from the list of qualifiers and non-qualifiers.

One approach to address these challenges is by integrating TQM in the current teaching methods of the College of Agriculture (CA). It must proactively transform its organisational culture, policies and processes to a student-oriented service. This involves ascertaining their needs, developing processes that meet those needs, defining realisable measurements of student's satisfaction and empowering faculty and staff to create, maintain and strengthen those processes in pursuit of continuous improvement.

CA recognises the need to implement TQM into its curriculum to make educational instruction more effective and meaningful and to improve students' performance in class through enhancement of teaching using the TQM-oriented instructional framework. Education plays a crucial role in an increasingly competitive global environment. Educating people about fundamental managerial concepts such as commitment, motivation, participation and leadership plays an important role in determining the effectiveness of processes used to shape and influence students. The proposed initiative to pioneer the implementation of TQM in the current CA Academic Program will pave the way for a possible transformation and further strengthening of the entire CA organizational culture.

One strategy to implement TQM in teaching is to administer mid and post SET (Student Evaluation of Teachers) during the semester. The current practice at UPLB is to use SET only at the end of the semester. Administered by the Office of the Vice Chancellor for Instruction (OVCI) across nine colleges for many years, the SET evaluation does not seem to significantly address improvement in teaching of faculty. One drawback is that the faculty does not receive the results of his and her evaluation promptly, thus the process does not immediately address the concerns for improvement as suggested by the students. Second, the practice is simply "going through the motions" as OVCI does not call the attention of faculty with low SET scores except in case of faculty with temporary appointment. Moreover, the current SET questionnaire does not capture some principles of TQM, thus requiring revision or improvement. CA will come up with a revised SET questionnaire adhering to the principles of TQM and implement a two phase SET, mid and post semester evaluation.

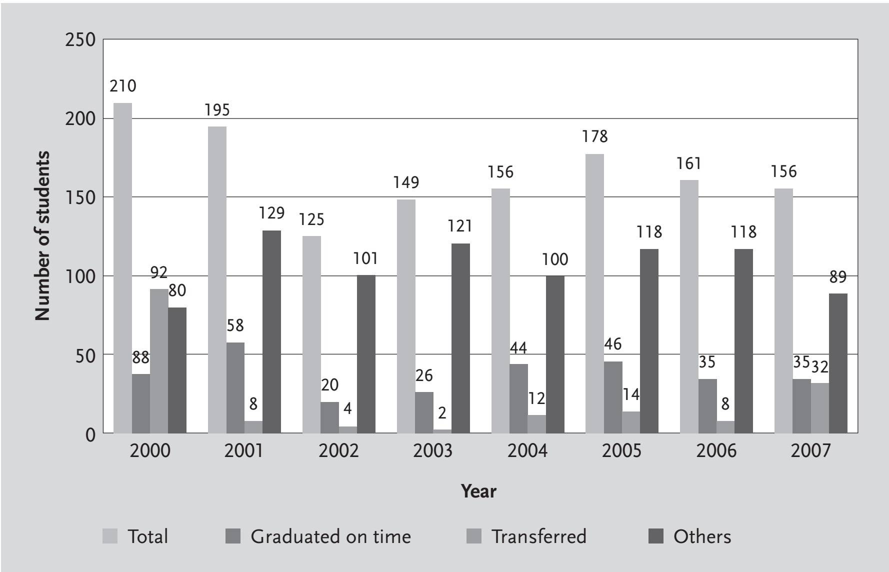

Figure 1: Performance of students admitted in CA 2000–2007 (after Lalican, 2011).

Objectives of the Study:

As part of the requirement to complete the International Deans' Course Southeast Asia 2012–13, a joint DAAD-HRK-DIES programme series, the first author has chosen TQM implementation at CA, UPLB as the main objective of his Project Action Plan (PAP). Specifically, this PAP aims to:

1. Implement a TQM strategy of a two-phase SET (Student Evaluation of Teachers)
2. Evaluate the effectiveness of TQM in educational instruction program of the College.

Methodology

We have endeavoured to engage in the following activities:

1. Create an Ad Hoc Committee on TQM
   The committee was formed by the Associate Dean with two members from each of the five clusters of the College namely: Agricultural Systems Cluster, Animal and Dairy Sciences Cluster, Crop Sciences Cluster, Crop Protection Cluster and Food Sciences Cluster. The committee was originally tasked to come up with a proposal on CA's implementation of the program for Commission on Higher Education (CHED) funding.
2. Hold seminar/training on the TQM principles of the staff with a TQM expert
   We have invited Engr. Delfin R. Jacob, a TQM expert and the current Director of the Center for Continuing Professional Education & Development of the University of Santo Tomas Graduate School. Engr. Jacob presented an introduction to the philosophy of TQM and its applications in the academe March 12, 2012. The number of attendees of the meeting was rather small; even some members of the ad hoc committee were not present. Nonetheless, our consultant was able put the message across of the need to change our paradigm in the way we do things in the College. Engr. Jacob proposed a framework for implementation of TQM in the College (Fig. 2).
3. Develop a new SET questionnaire which adheres to the principles of TQM. We have adapted SET questions from the article of Babbar (1995) because the current SET we used in the university does not address some principles of TQM (Table 1)
4. Pilot test new SET questionnaire to representative courses
5. We have piloted the new SET questionnaire to 12 basic courses with large class size. For ease of presentation, we selected a Crop Protection course in this paper. Table 1 shows the score students provided for both mid-post period evaluations.

Educational Survey Item	Mid-Evaluation Score	Post-Evaluation Score
1. Enthusiasm, energy and interest in the subject	1.67	1.39
2. Practice of mutual respect	1.71	1.42
3. Interaction with students	1.84	1.50
4. Class participation	2.12	1.73
5. Knowledge of the subject	1.38	1.40
6. Willingness to learn himself	1.76	1.54
7. His effort in attempting to teach effectively	1.51	1.40
8. Creativity, proactive thinking and conceptual horizons	1.96	1.62
9. Quality of work (syllabus, test, assignments)	1.75	1.49
10. Paying attention to detail	1.75	1.52
11. Involvement with students	1.80	1.56
12. Willingness to help students	1.80	1.63
13. Really caring that students actually learn	1.82	1.62
14. Being frank, open, and up front about things	1.88	1.60
15. Enhancing competitiveness	1.81	1.57
16. Fairness in treatment of students	1.59	1.46
17. Fairness in evaluating performance	1.71	1.48
18. Feedback provided	1.85	1.62
19. Encouragement and support	1.78	1.57
20. The values he communicated and displayed	1.64	1.51
21. Ethical values and practice of such values	1.69	1.51
22. Commitment to the teaching profession	1.51	1.45
23. Commitment to shaping students into better professionals	1.63	1.49
24. Practicing what he preaches	1.64	1.47
25. Teaching the subject best for students	1.66	1.42
26. Challenging the students to be creative	1.91	1.67
27. Promoting a “can do” attitude	1.77	1.54
Interpretation of Score: 1 – Excellent 2 – Good 3 – Satisfactory 4 – Conditional 5 – Needs Improvement		

Table 1: Mean scores at mid- and post- evaluation provided by 125 undergraduate students in crop protection course during the first semester 2011.

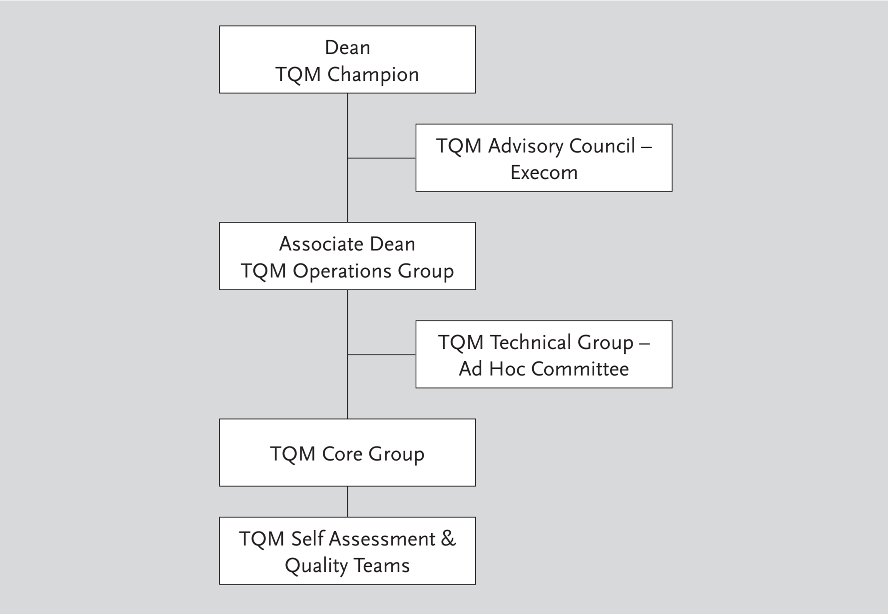

Figure 2: UPLB-CA TQM Structural Framework (adapted from Jacob, 2012).

The SWOT analysis showed more on the benefits to be derived on TQM implementation (Table 1).

Strengths	Weakness	Opportunities	Threats
Innovative approach to teaching	Lack of commitment of some staff to implement TQM	Improve teaching and student performance	May affect academic freedom upheld by national university
Never ending pursuit of continuous self-improvement	Motivated by reward systems	Involves all employees	Students may demand much from the professors
Based decisions on data and performance measures		Teaching can go beyond textbooks	

Table 2: SWOT analysis for the TQM program implementation of CA

Difficulties and obstacles encountered

UPLB as the national university for agricultural sciences is known to uphold academic freedom in teaching. Faculty members have the authority to teach in accordance to what he or she thinks would be best for learning of students to proceed. There is no standard manner by which the teachers should teach nor are they influenced by prescribed strategies and methods in teaching. Over the years, academic freedom has been guaranteed. With the infusion of the TQM philosophy, there have been conflicts within the institutions because TQM was interpreted to limit academic freedom. Hence, there is lack of support for this new programme usually from the senior faculty members. In addition, there seems to have an emerging lack of confidence among them in TQM implementation. Perhaps a two-day training, which may seem like a crash course for many, may not be enough to imbibe the TQM philosophy into their teaching. Finally, the implementation of TQM requires additional funding in terms of improvement of teaching materials and facilities.

Overcoming obstacles

To overcome the aforementioned obstacles, the first step is to build TQM awareness not only to faculty members but also to non-academic personnel. This is done by forming TQM Core Groups and TQM Self-Assessment Quality Teams (Fig. 1), represented by the five clusters of the College whose tasks are: (1) formulate short range activity plans to improve teaching that are common across the clusters; (2) to solicit the needed support from all staff; and (3) to initiate new ideas to sustain the programme. One key element in achieving output is to follow-up on people with assigned tasks and continuous reporting of progress.

Learning Outcomes

The lesson on focusing on problems but never on personalities has been effective in managing conflicts. For example, instead of judging some members of the TQM Ad Hoc Committee as tardy or lazy in attending meetings, we focus on ways to increase attendance by providing snacks or lunch. We have not underestimated this strategy as our attendance in our most recent meeting has improved considerably.

The TQM philosophy – no matter how great in principle – cannot be successful in practice if there is no teamwork among the staff of the College. The TQM Ad Hoc Committee cannot do it alone. We believe that being a TEAM means – Together Everyone Achieves More. In order to effect change, one has to lead the pace by example. As members of the TQM Ad Hoc Committee, we have initiated the lead to subject our classes to mid- and post SET evaluation. Leading by example makes one an effective leader. In the end, when we persist in overcoming all these challenges, we will ultimately lead to the path of success.

Future Plans and Outlook

From 2013 to 2014, we plan to develop UPLB-CA 's TQM programme design by building TQM awareness among personnel, training TQM leaders from selected clusters and forming TQM self-assessment and quality teams from selected course per cluster. From 2014- 2015, we will eventually form and train TQM teams and leaders from all clusters. We will use quality tools and techniques in all of our activities and develop UPLB-CA as a TQM Model College.

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Curriculum Development: Towards Internationalization and Deliberation of Continuous Improvement in Higher Education – Case Study: Architecture Study Programme, SAPPD ITB[1]

Widjaja Martokusumo

Abstract

Internationalisation has been an important policy in academic engagements at the Institut Teknologi Bandung (ITB). This policy has been pursued since 2005 to respond to demands and meet requirements to increase the teaching and research quality. The driving force for such changes refers to the global changing landscape of higher education, such as the increasing number of students, the time and budget constraints and the notions of globalisation. These imperatives, new challenges and problems have respectively to be taken into account in curriculum development, especially the quality improvement of teaching and learning process in ITB.

As part of quality assurance, curriculum development is a complex process, and time consuming. In relation to this, a full five years of KSE accreditation, which has been recently granted for the professional degree in architecture study programme, indicates several significant imperatives that should be integrated in the

1 This article is based upon the Personal Action Plan (PAP) on Curriculum Development at the SAPPD ITB, especially the architecture study programme. Participants of IDC Southeast Asia 2012/2013 designed and implemented PAPs at their respective home institutions during the course. Throughout the three phases of the courses (Osnabrück and Berlin, June 2012; Bandung, October 2012, and Jogjakarta, February, 2013), participants received support and guidance from regional experts, and had the opportunity to share their unique experiences.

new curriculum of 2013–2018. Based on the experience at the School of Architecture, Planning and Policy Development (SAPPD) ITB, this paper elucidates the progress of curriculum development and its relation to the subject of PAP for the International Deans Course (IDC) South East Asia 2012/2013. The case of PAP, which addressed the curriculum development on architecture study programme, has been an opportunity to test the waters regarding faculty management and continuous improvement in higher education.

Keywords: faculty management, curriculum, quality assurance, architecture study programme, ITB

I Introduction: The Changing Landscape of Higher Education

We are presently witnessing the transformation process of higher education. Globally higher education policies are gradually moving from state-controlled system towards a system that embraces university autonomy, accountability and peer-based quality assurance (Wahlers and Wilde in Mayer *et al.*, 2011). Indonesia enjoyed the autonomous university period from 2000–2010 (*Perguruan Tinggi Badan Hukum Milik Negara PT-BHMN or* Higher Education of State-owned Legal Entity), in which seven state universities, including the *Institut Teknologi Bandung* (hereafter, ITB), were given authority to develop study programmes, engage in student selection and design internal financial regulation (pricing and planning etc.). In accordance with that, a new organisational structure as the basic requirement for more competitive and innovative higher education institutions was established. However, introducing the legal status of autonomy to state university would be mistakenly associated with the absence of state responsibility in higher education management (cf. Abbas, 2012).[2]

Unpredictable future, as part of the post-industrial society, is also playing a role in the higher education institution (Maidment and Mackerras, 1998; Saillah, 2013).

2 In the case of Indonesia, the status of autonomy is very relative in a sense that state university is somehow still dependent on government funding. The university had merely the autonomy of internal financial regulation including pricing, financial planning, university-wide budgeting system, internal & external auditing. In terms of human resource development, planning, recruitment, promotion and termination were internally regulated. Therefore, it is essentially different to private higher education institutions, in which the autonomy usually is not related to government funding (cf. Achjari, 2013).

After a decade of quasi full autonomy, a significant change took place in 2009. Relating to the recent changes, a number of uncertainties have emerged, due to the lack of model, such as development for new university statute, changes in organisational structure and employment. Consequently, the internal financial management system that was applied during the previous autonomous period was also changed. In regard to such elusive situation, the quality of teaching and research in the higher education will undoubtedly be soon affected by the declining public funding. In spite of that, the growing competition in the university sector is also inevitable, and the public expectation of having affordable education and demand from stakeholders is respectively increasing. In addition to that, nowadays universities are required to respond to international rankings due to the globalisation of Higher Education; however to some extent globalisation can threaten national education in terms of intrusion on the national character and identity (Soejatminah, 2009 and Watson, 2012).

Since the internationalisation strategy was launched in 2005, ITB has been trying to strengthen the international dimension of all programmes in teaching, research and community services. As part of the globalisation imperatives, efforts to have international recognition have commenced. This international dimension of teaching and learning is definitely playing an important role in curriculum development. One response to that is the issue on international accreditation of architecture study programme, which has been deliberated since the last decade. Hence, after almost three years of intensive preparation, the application for the accreditation of the professional degree in architecture study programme was submitted in July 2012 to the Korea Accrediting Architectural Board (KAAB) for Substantial Equivalency (SE). After a site visit and assessment, a full 5-year of KSE accreditation has been awarded to the professional degree in architecture study programme. Such international acknowledgment is not only understood as a global recognition of the study programme, but the achievement must also be conceived as a self-reflection of teaching and research quality for the on-going curriculum evaluation and faculty management. Therefore, based on the result of the KAAB's Substantial Equivalency (KSE) and in response to new challenges and requirements, several important adjustments to the curriculum for 2013–2018 were made.[3] Through the KSE, some specific features of knowledge development on planning and design, such as liberal arts, have caught the attention of the top management of ITB, which

3 Since early 2011 the preparation of new curriculum development in ITB for the academic year 2013–2018 was begun, and the whole progress has been going on until this article was written.

is dominated by the science and engineering society. At the moment this article is written, the draft of new curriculum is being prepared by all the faculties and study programmes.

The experience of the writer's Project Action Plan (PAP) that was developed in the course of the writer's participation in the International Deans' Course 2012–2013 on faculty management, unveils the demanding progress of managing curriculum development to fulfil the requirements for the KSE. The focus of this paper is on the nexus among curriculum development, quality assurance, and the unavoidable change in faculty management. In relation to this, relevant questions are raised on implementation of continuous improvement, and how to improve programme accountability. Undoubtedly, these efforts will need a supporting culture in each academic community, which certainly may not develop on its own. It cannot be taken for granted that the participation of the relevant stakeholders will ensue automatically. Hence, new ways, methods, skills and strategies must be used to initiate and invigorate the transformation of culture and attitude towards a better faculty management. The argument I put forward, is that quality assurance in higher education institutions can only be achieved by a clearly defined system of accountability and relentless continuous improvement, and wide-ranging participation from the stakeholders.

II International Recognition: ITB and its Internationalisation Policy

II.1 History and Background

Institut Teknologi Bandung (abbreviated as ITB) was established in Bandung, West Java, Indonesia in 1920 as the first engineering/technology-oriented school called *Technische Hoogeschool (TH) te Bandoeng*. In the middle forties, during the Japanese occupation (1942–1945), TH became *Kogyo Daigaku*. Soon after the birth of the Republic of Indonesia in 1945, the campus housed the Technical Faculty (including a Fine Arts Department) of *Universitas Indonesia*, with the main administrative office in Jakarta. In the early fifties, the Faculty of Mathematics and Natural Sciences, also part of *Universitas Indonesia*, was established on the campus. Soekarno, the first president of Indonesia, inaugurated the present ITB on 2 March 1959 as a public institution of higher learning of science, technology, and fine arts, with a mission of education, research, and service to the community.

Until 2000 ITB was a state university, and then it became a quasi-autonomous university from 2000–2010. The Government Decree No. 155/2000 on ITB as a Legal Enterprise (*Badan Hukum*) opened a new path for ITB to become autonomous. The status of autonomy implied freedom for the institution to manage its own business in an effective and efficient way, and to be fully responsible for the planning and implementation of all programmes and activities, and quality control for the accomplishment of its institutional objective. The institution had also freedom in deciding their measures and taking calculated risks in the face of tight competition and intense pressure. Having the autonomy (BHMN) status the seven state universities were strongly encouraged in that period to be financially independent with less public sector funding. From different perspectives, however, this can be associated with privatisation of state universities.[4] This view is absolutely mistaken, and until today, there has still been a fundamental misperception within the community. Actually, the autonomy of state universities refers to some element of freedom to decide on programmes, organisation, spending etc., but it does not typically mean that public sector withdraws the funding completely.[5] Relating to the autonomy status, a new organizational structure of ITB was established in 2005, based on the category of similarity of knowledge and/or discipline. Since then, ITB has expanded the number of its faculties/schools from seven to eleven.[6]

4 Therefore, the wave of resistance against the legal status of autonomy has a strong relations to some of the issues during the students' demonstration, such as: government is not responsible for public educations, poor people will suffer with the new system, intervention of foreign capital in education (IMF, World Bank, WTO, etc.), commercialisation of education by neo-liberalism regime, and rejecting the BHMN. The principle status of BHMN is considered as privatisation of state university in the sense that the government effort to implement higher education reform by encouraging university to be autonomous with less government funding (cf. http://www.antaranews.com/view/?=1173695762&c=NAS&s, visited 13 March 2013).

5 cf. *Terjadi Kesalahpahaman soal Otonomi PT* (translation: Misunderstanding on the Autonomy of Higher Education), Kompas 28 April, 2013, and cf. *Sepuluh Kekeliruan Tentang Otonomi Perguruan Tinggi dan Perguruan Tinggi Negeri Badan Hukum* (translation: Ten Misinterpretations of Autonomy of Higher Education and State University by Law) http://www.upi.edu/main/file/sepuluh%20kekeliruan%20berpikir%20ttg%20 otonomi% 20pt- %204%20April%202013.pdf (retrieved 19 Juni 2013)

6 Nowadays, ITB has 12 faculties und schools as follows: Faculty of Mathematics and Natural Sciences, Faculty of Civil and Environmental Engineering, Faculty of Art and Design, Faculty of Industrial Technology, Faculty of Mechanical and Aerospace Engineering, Faculty of Mining and Petroleum Engineering, Faculty of Earth Sciences and Technology, School of Electrical Engineering and Informatics, School of Pharmacy, School of Life Sciences and Technology, School of Architecture, Planning and Policy Development, School of Business and Management, and Graduate School (cf. https://www.itb.ac.id, retrieved 10 March 2013)

ITB	Year							
(Student Body)	2004	2005	2006	2007	2008	2009	2010	2011
Strata 1 (S1) Bachelor	11.321	11.804	12.422	13.049	13.403	13.595	13.503	13.671
Strata 2 (S2) Master	2.999	2.679	2.422	2.448	3.592	4.243	4.642	5.024
Strata 3 (S3) Doctorate	457	410	396	352	465	536	626	745

Figure 1a: Student body at ITB 2004–2011
Source: www.itb.ac.id/about-itb/facts (retrieved 5 March, 2013)

ITB	Year							
(Accepted Students)	2004	2005	2006	2007	2008	2009	2010	2011
Strata 1 (S1) Bachelor	2.957	2.823	3.033	3.052	3.120	3.128	3.182	3.459
Strata 2 (S2) Master	1.189	845	1.054	1.183	1.078	1.492	2.070	2.086
Strata 3 (S3) Doctorate	106	86	102	72	77	112	201	220

Figure 1b: Accepted Students 2004–2011
Source: www.itb.ac.id about-itb/facts (retrieved 5 March, 2013)

ITB	Year							
Graduates (Graduated students)	2004	2005	2006	2007	2008	2009	2010	2011
Strata 1 (S1) Bachelor	2.040	2.039	2.379	2.379	2.514	2.698	3.297	2.917
Strata 2 (S2) Master	1.024	1.139	1.201	932	1.067	1.546	1.946	1.795
Strata 3 (S3) Doctorate	49	110	87	28	70	59	98	87

Figure 1c: Graduated Students 2004_2011
Source: www.itb.ac.id about-itb/facts (retrieved 5 March, 2013)

From 2009–2010, the status of ITB with the other six universities as Higher Education of State-owned Legal Entity (BHMN) was converted to a Legal Body of Education (BHP). Following this, the so-called State University By-Law (PTN BH) was respectively established, as enacted in the new Higher Education Law 12/2012 (cf. Abbas, 2012 and Achjari, 2013). However, such dramatic institutional changes must still address several important issues such as quality and development of higher education, widening access and equity, respecting diversity, enhancing autonomous and accountability that have become an essential part of today's university. Although the status has become the State University by Law, the issues on accountability and autonomy, which during the autonomous period were not sufficiently resolved, have remained as challenging issues, and play absolutely an important role in the future of higher education institutions.

II.2 International Acknowledgment

With regards to the international acknowledgment, there are several notions that can be raised as follow: First, as mentioned above, enormous changes in the higher education landscape, have characterised university management in various aspects all over the world today. Apart from the change of legal status, quality assurance will always be one of the major components in quality management (cf. Ramsden, 2007). At the same time, sufficient planning, new management strategies and development of appropriate tools are still required to improve the quality of teaching and learning at SAPPD ITB. As previously expressed, quality assurance is the greatest challenge of internationalization of higher education common to all institutions (Kamaara in Mayer *et al.*, 2011). Therefore, improving the quality of teaching and learning brings also consequences for the organisational structure of the faculty and department, especially the human and resource development plan.

Although ITB had enjoyed the status of self-governance for almost a decade, there has been no significant change in terms of human resource development. All academic staffs of ITB are mostly appointed as government officials with a tenure status until his/her retirement age (65 years).[7] Open recruitment system is centrally and jointly conducted both by the Ministry of Education and Culture and ITB, in accordance with the expertise requested from the new candidates by each research group concerned, and also based on criteria and regulation determined by the Indonesian Government.[8] Entry level for candidates of academic personnel of ITB is master degree, but PhD degree is mostly preferred.

7 According to the latest decree from the Director of Higher Education University-Professor (*Guru Besar*) can be extended until 70 years old.

8 Research groups (*Kelompok Keahlian*, hereafter KK) consist of lecturers/staff members, which have similarity on research category or topic of interest. Since the new organisational structure was introduced in the academic year 2006/2007, a study programme is basically formed and supported by one or more research groups. Faculty/school within the university becomes a unit which has the authority in regard to resource development and academic organization. Thus, the role of dean is not merely an academic leader, but she or he takes also responsibility as a manager of a unique academic organisation in the higher education institution. Meanwhile study programme is a subordinate of the respective faculty/school that is in charge for the academic programme.

Secondly, globalisation has undoubtedly been influencing the Indonesian higher education, and internationalisation can be conceived of as a common feature in many universities globally (Soejatminah, 2009). Due to globalisation, internationalisation has provided opportunities and challenges as well in the higher education institutions. Many sources reflect that the lack of capability at the institutional level slows down the process. Furthermore, regardless of the critical condition, foreign institutions can establish their campus in Indonesia as long as they comply with the local regulations and context.

Another important notion of internationalisation, which is commonly highly appreciated, is the academic networking and collaboration with partner (foreign) universities (cf. Abbas, 2011). These are all related to the understanding, as revealed by Marginson and Wende (2007), that in the global knowledge economy, universities are the medium for relationships and global movement of people, information, knowledge, technologies, products and financial capital (cf. Ramsden, 2007). Such international mobility and the internationalisation of institutions have become important notions in government and universities, also in Indonesia (Marginson and Wende, 2007; Soejatminah, 2009). This issue is considered important for the home/local university, be it state or privately owned, since it will reflect the reputation of the university. Given these circumstances, many state universities, including ITB, have offered international programmes, such as Double Degree programme, Summer Camp/Courses, student/staff mobility programme, joint research or joint workshop etc.

II.3 Internationalisation Policy

The driving forces for the internationalisation of higher education are divers, but in general they can be categorised as follows: a desire to promote mutual understanding, the migration of skilled workers in globalised economy; the desire of the institutions to generate additional revenues; or the need to build a more educated workforce in the home countries, generally as emerging economies.[9] Internationalisation of education in Indonesia is planned to support the formation of a world intellectual community with mutual understanding and solidarity among scholars by encouraging students and scholars' mobility and higher education collaborations (Iskandar, 2012).

As briefly mentioned, in Indonesia internationalisation of higher education institution has also been considered as an important policy for years (cf. Levin, Jeong

9 cf. http://www.oecd.org/education/country-studies/33734276.pdf (visited 14 March 2013)

and Ou, 2006 and Watson, 2012).[10] In order to respond to demands and meet the requirements on increasing the learning and teaching quality, ITB recently has launched its strategy to strengthen the international dimension of all programmes, including research, teaching and community services.[11] Following this, the expansion of international cooperation is becoming more significant with other universities abroad, especially in education and research programmes. According to ITB's internal policy, at least one of the three internationalisation programmes should be carried out in each faculty/school as follows:

1. student and staff mobility (exchange programme);
2. joint academic activities, such as summer camp/school, joint research, joint thesis supervision, and International Double Degree (DD) programme (at least one per faculty); and
3. international accreditation/recognition (at least one per faculty).

As a matter of fact professional degree programmes in architecture are responsible for the education of future architects who are challenged with the complex and diverse architectural need of society. Given that, the methods of education of the programmes may vary, therefore it is prudent to establish a standard, which establishes a level of competence and understanding required to become a registered architect (cf. KAAB's Conditions and Procedures, 2010). Regarding this international recognition, architectural education programmes at SAPPD ITB aspired to step further by acquiring recognition from an internationally renowned accreditation board, in particular Korea Accrediting Architectural Board (KAAB), so that its vision to be a regional/Southeast-Asian hub for learning of tropical architecture and sustainable built environment in developing countries can be achieved.

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10 This may be relevant to the notion on World Class University (WCU) that emerged in the dissemination of higher education institution in Indonesia. This controversial issue was reflected on articles such as: "Does Indonesia need world-class universities?" (cf. Watson, 2012); "Klaim World Class University di Indonesia", www.tempo.co/read/news/2012/05/21/079405098/Klaim-World-Class-University-di-Indonesia (visited 17 March 2013); ITB: "World Class University" Bukan Tujuan Utama! (Translation: WCU is not the Ultimate Goal!) http://sains.kompas.com/read/2009/10/27/10451526/itb.world.class.university.bukan.tujuan.utama (visited 17 March 2013).

11 The Indonesian Government has given to all higher educational institutions in Indonesia three main tasks which are known as *Tridarma Perguruan Tinggi*, namely: 1) education, 2) research, and 3) community service. ITB has allocated its academic human resources into ca. 100 research groups (*kelompok keahlian*) to implement these tasks of Tridharma. The tasks are distributed among 12 schools or faculties that have been established within organizational structure of ITB.

The preparation for assessment included the Architecture Programme Report (APR)[12], identification of the fulfilment of competency in the curriculum, which is based on the Student Performance Criteria (SPC), and documentation, included course portfolios, archives of assignments, remarks, studio works, list of activities, academic cooperation, national and international networking and collaborations in form of joint studios, joint researches etc. In spite of APR, the identification of the competency will be important, since the graduates of the programme seeking accreditation must satisfy SPC through result of carrying out the programme's curriculum. The preparation was actually started in 2010.

Through a long demanding discussion within the faculty and department, especially department of architecture and also in regard to accountability and quality improvement of academic activities in ITB, the application for professional degree in architecture study programme together with the APR to Korea Accrediting Architectural Board (KAAB) were finally submitted in July 2012. The KAAB's approval for a site visit to Indonesia was announced in August 2012. The site visit was carried out from 14–17 October 2012, and it was exactly the period of the second phase of IDC which took place in Bandung. During the site visit the KAAB's visiting team was assisted by the department of architecture, the deanship of SAPPD and the Office of Quality Assurance of ITB.

In late January 2013, SAPPD received an official notification from the KAAB, stating that a full five years KSE is granted for the professional degree in architecture programme. This KSE is given for the first time to a foreign institution outside Korea. Substantial equivalency (SE) is defined as follows[13]:

> "The term 'substantial equivalency' identifies a program as comparable in educational outcomes in all significant aspects, and indicates that it provides an educational experience meeting acceptable standards, even though such a programme may differ in format or method of delivery. Substantial equivalency is not accreditation or validation."

12 The APR consisted of Overview of the Programme, Progress since the Previous Site Visit, Programme Response to the KAAB Perspectives, Curriculum of the Professional Degree Programme, Student Performance Criteria (SPC), Student Information, Human Resources, Physical Recourses, Information Resources, Financial Resources, and Supplemental Information (Condition and Procedures, For Professional Degree Programmes in Architecture, 2005).

13 http://www.naab.org/international/canberraaccord.aspx (visited 14 March 2013)

Accreditation is an acknowledgment and a guarantee as well that a study programme has met all the requirements and fulfilled the working standards from the profession, which is represented by professionals and accreditation board. As explained as follows[14]:

> Accreditation, in general, is a process of external quality review used to scrutinize colleges, universities and educational programs for quality assurance and quality improvement. In the United States, accreditation is carried out by private, non-profit organizations designed for this specific purpose. Institutions and educational programs seek accredited status as a means of demonstrating their academic quality to students and the public.

In relation to the argument of international accreditation, it should be born in mind that according to the WTO system, there will no longer be any trade barriers. Moreover, Free Trade Areas (FTA's) are actively being agreed upon by many different countries, especially in Asia. As many evidences also show that the teaching methods of the programmes, the regional context and even the geo-political conditions of many educational institutions may vary, therefore, endeavours to meet international standards are to be made not only in the architectural industry, but in architectural education as well.

Besides architecture study programme, other study programmes from different faculty/school in ITB have been granted the international accreditation too, such as Marine Engineering (2011), Engineering Electronics (2011) and Engineering Physics (2012) have been granted the accreditation from ABET (Accreditation Board for Engineering and Technology, Inc.); the Engineering Chemistry (2013) programme received accreditation from the RSC (Royal Society of Chemistry, London); and the Management programme received accreditation from ABEST (The Alliance on Business Education and Scholarship for Tomorrow) accreditation.[15] All the above mentioned study programmes have already been accredited by the Indonesian National Accrediting Agency of Higher Education (NAAHE). ITB's commitment to the World Class University (WCU) programme is reflected in the accomplishment of the above study programmes to attain global acknowledgment through international recognition.

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14 http://www.naab.org/accreditation (visited 14 March 2013)

15 http://www.chem.itb.ac.id/index.php?option=com_content&view=article&id=112:prodi-kimia-dukung-misi-itb-melalui-proses-akreditasi-internasional-rsc (visited 13 March 2013)

As discussed, in terms of motivation and intention, the internationalisation policy is developed to encourage the formation of a global intellectual community with mutual understanding among scholars. This can simply be achieved by encouraging students/scholars mobility and higher education collaborations or networks. The culture of collaboration, recently indicated as typical aspect of the post-industrial society, will be inevitable regarding the dynamic change of higher education landscape (Saillah, 2013). For the purpose of collaborations and networking, international accreditation or international acknowledgment is considered very important. The department of architecture of the SAPPD ITB has chosen to apply the KSE; which will be used for improving the curriculum development, and also for self-reflection of the current academic programmes. Quality improvement will work properly only if it is supported by good quality management, since they are all closely related to each other. Besides new organisational structure, a new academic culture will also be imperative. Through thoughtful documentation process and academic portfolios, and a high priority on internationalisation of study programmes, the need for academic staff and students to acquire knowledge and competences that would assist them internationally can be motivated. Lastly, to keep the quality of teaching and research, the two issues on accountability and continuous improvement will be essential in international accreditation.

III Curriculum Development as IDC's Project Action Plan

The first phase of curriculum development in ITB commences with curriculum evaluation. As guided by the Office of Quality Assurance, for every five years, the curriculum should regularly be revised and evaluated. In relation to international recognition, there are two issues that must be taken into account regarding curriculum development, namely accountability and continuous improvement. As mentioned, evaluation for accountability has become an essential part of today's university and the system of higher education of which it forms a part (Ramsden, 2007). Because of the dynamic circumstance of higher education landscape, as indicated by the increasing number of student, the limitation of resources and the length of study time, has become significant; therefore the need of improvement in academic programmes and performance are inevitable, and to some extent also required (Fig.1a, 1b, 1c and Fig 2a, 2b).

First, in terms of accountability, the architecture education programme must satisfy certain standards and qualification, be that nationally or internationally. Globally there are minimum requirements for architecture study programmes. According to NAAB, KAAB and UIA, for the professional degree in architecture the study period must be five years. After Bologna accord (three plus two years) the 5-year programme is equivalent to the master level. Meanwhile, Indonesia has a different situation, whereby nationwide the bachelor degree takes four years and master degree another two years. According to the agreement between the Indonesian Architects Association (IAI) and university, to fulfil the national standard of professional degree in architecture, the graduates with bachelor degree need an additional one-year programme in a professional degree programme. Thus, in total the study period will be five years, as required by the profession of architects. Currently, several universities have different mechanisms and practises to accommodate the professional education in the architecture study programme. In the near future, to be a licensed architect, an internship of two years, in addition to the five years study, is obligatory. This regulation will be issued soon after the approval of the Architects Act by the House of Representative.

No.	Study Programme	Bachelor	Master	PhD	Total
0	Common First Year (SAPPD)	211	–	–	211
1	Architecture	–	31	8	39
2	Regional and Urban Planning	–	74	3	77
3	Development Studies	–	26	–	26
4	Transportation	–	10	2	12
5	Urban Design	–	12	–	12
6	Tourism Planning	–	8	–	8
	Total	**211**	**161**	**13**	**385**

Figure 2a: Student Recruitment in SAPPD ITB 2011
Source: School of Architecture, Planning and Policy Development ITB, 2011

No.	Study Programme	Bachelor	Master	PhD	Total
0	First Common Year (SAPPD)	204	–	–	204
1	Architecture	–	35	7	42
2	Regional and Urban Planning	–	81	2	83
3	Development Studies	–	67	–	67
4	Transportation	–	20	4	24
5	Urban Design	–	11	–	11
6	Tourism Planning	–	5	–	5
	Total	**204**	**219**	**13**	**436**

Figure 2b: Student Recruitment in SAPPD ITB 2012
Source: School of Architecture, Planning and Policy Development ITB, 2012

Secondly, at the national level the higher education institutions are divided into private and state universities; as such there is a slight difference between them in terms of academic and organisational structure. There are also differences among state universities. Since 1970, ITB has introduced the so-called First Common Year Programme (*Tahun Pertama Bersama-TPB*) for all first year students, regardless of their study programme. Referring to the minimum requirement for professional education, the length of time to study architecture in undergraduate programme is effectively only three years. As such, one needs at least another extra two years study to fulfil the international requirement of professional degree in architecture. Since 2010, the architecture study programme in ITB has decided to include the master programme, i.e. the first two semesters of the master programme, in order to meet the requirements of study period.

Thirdly, regardless of the basic First Common Year Programme courses, the first year students of SAPPD ITB should be provided with the common basic knowledge of the faculty, namely Fundamental of Planning and Design. As part of the SAPPD ITB, the study programme in Regional and City Planning together with the Architecture programme have jointly established the knowledge foundation of the faculty. The programme's educational objective for each study programme and for each level should substantially be brought into line and aligned with the vision and mission of the faculty. Due to the academic reform at ITB in 2005, faculties and schools within ITB have become the unit, which has the full authority in management of resource development and academic engagements.

It was in early February 2012 that I proposed my application for the IDC Southeast Asia 2012/2013. At that time, the school was exactly in the middle of the preparation for a new curriculum, for which I was in charge. The activities range from team meetings within study programme, faculty discussions and small workshops with internal staffs/academic community. These activities have started in the midst of 2011, and prior to that, two types of working groups were set up at the faculty and study programme level as well. The meetings at the faculty level initially were intended to manage and keep the wholeness of faculty-related substantial materials, while the working groups in the respective study programmes were basically reviewing discussions on each discipline, i.e. architecture, regional and city planning, urban design, development studies, transportation, defense studies, tourism planning and landscape architecture.

In general, the first phase of curriculum development in ITB was prompted with curriculum evaluation. The evaluation in the form of a faculty workshop was held in February 2012, and basically it dealt with the 2008–2013 curriculums. Each group reported their evaluation findings, which indicated common issues in planning and design. Prior to the workshop, discussions, and Focus Group Discussions-FGD with faculty members, advisory boards, alumni etc. were held by the respective curriculum groups. During the first meeting of IDC in Germany, my proposed Project Action Plan was to focus on the new 2013 curriculum development. Moreover, curriculum evaluation is one of the important agendas in the Five-Year Strategic Plan 2011–2015 of SAPPD ITB too.[16]

Based upon the results and commitments of the evaluation process as indicated in the Project Action Plan (Milestone A), the design of the new curriculum 2013–2018 for every study programme within the faculty must include a new setting of contemporary shared issues on built-environment (cf. Table 1). Furthermore, a readjustment of programme's educational objective and reformulation of expected student's outcome (outcome based education) must be revisited. Due to substantial shared background i.e. commonalities of expertise, there is an internal agreement to reformulate shared issues (in teaching, learning and research) within the faculty. Moreover, regardless of the substantive notions dealing with planning and design (creating policy development of sustainable environment), the discussion addresses the procedural and methodological contents, especially the course and material deliveries. Although the process to achieve consensus took some time, finally all participants and representatives agreed to propose a unique approach and learning process i.e. the design and/or planning studio; which is upon the nature of substantial knowledge in those fields (design and planning).

In the IDC second phase in October 2012, the curriculum development progress at SAPPD ITB was reported, which included the inherent obstacles and opportunities (Milestone B and C). The statement on the body of knowledge, the objective of the study programme, expected student's outcome and curriculum structure and courses (including elective and mandatory) were intensively discussed at the faculty. This second meeting should not merely be considered as a progress report of each PAP, but rather as an opportunity to share experiences and common

16 Workshop participants consists of curriculum groups from all study programmes in SAPPD, such as Architecture, Urban and Regional Planning, Transportation, Urban Design, Landscape Architecture, Defense Studies, Development Studies and Tourism Planning

problems with the participants. During this meeting, the KAAB's team came for a 4-day visit to do an assessment at the department of architecture. Some of the discussions on curriculum development with the KAAB Visiting Team were reported and shared at the meeting as well. All the inputs in the discussion and feedbacks from the review APR were taken into account in the design of the new curriculum 2013–2018. At most, the review can be considered as a self-reflection of common practices within the programmes.

1. Preparation (accomplished)	• Formation of the curriculum Working Group • Study Program and faculty level
2. Evaluation (accomplished)	• Initiate meeting, socialization, coordination in different levels (study program, faculty and university) • Evaluation report
3. Planning, Design and Final Drafting (accomplished)	• Initiate meeting, socialization, coordination in different levels (study program, faculty and university) • Curriculum document for Faculty Senate's approval
4. Implementation (August 2013)	• University Senate's approval • Implementation in new academic year 2013–2014

Table 1: Stages in Curriculum development at SAPPD ITB
Source: Personal Action Plan W. Martokusumo, 2013

In December 2012, a second curriculum workshop was held and organised again by the faculty, and its aims were to disseminate the process of designing the curriculum from each study programme (Milestone D). The target of Resource and Management plan could not be discussed, since the focus of curriculum was still on the structure of curriculum. Despite of this focus on the curriculum, the Five Year Strategic Plan 2011–2015 of the faculty was also revisited. Starting from the first workshop, regular meetings to disseminate the curriculum evaluation progress at the faculty, study programme and faculty's senate had been carried out, including the meeting with advisory board. These structured events are needed to disseminate the progress of curriculum development and for the community to participate in the preparation of the new curriculum.

After a full 5-year KSE is granted for the professional degree in architecture study programme, the result was then used in the curriculum development as basic arguments for reformulation of the curriculum structure, reorientation of the programme's educational objective, and the implementation of outcome based education. In a broader sense, the KSE serves as an important consideration in curriculum development. The design of the new curriculum for the architecture study programme is based on the SPC, and the result of KSE is used as fundamental arguments in developing the curriculum.

Soon after the new curriculum was approved by the faculty senate of SAPPD, the document was submitted on 28 February 2013 (Milestone E). As previously scheduled, the submission of the documents was in the middle of February 2013. The Office of Educational Research and Community Services Assessment ITB is in charge of the final review at the university level. After the curriculum drafts are revised, the documents will be delivered to the academic senate of ITB for final review/approval. As scheduled, the implementation of the curriculum will commence in the next academic semester, August 2013.

IV Reflection and the Role of IDC

Given the inevitable changing landscape of higher education institutions globally, there is a need for appropriate handling of the faculty management; and the IDC has offered many opportunities and chances to overcome the obstacles and deal with the notions of quality management in higher education institutions. The IDC Southeast Asia 2012/2013, jointly offered by DAAD, HRK, CHE, and University of Applied Sciences Osnabrück, has given different perspectives and provided useful approaches on faculty management. Real cases and project simulations have been very helpful to enrich faculty management strategy. From the first phase of IDC course in Osnabrück and Berlin, I learned many inspirational ideas from theories, methods, case studies, and have continued to draw inspiration from participants I encountered in that meetings. IDC, throughout its three phases, gave me valuable chances and great opportunities not only to learn from the trainers, but also to share with other participants their experiences. Unfortunately, the interesting process of comprehensive learning from others could only happen in the first and last phase of IDC.

Curriculum development, as explained, is a complex process and time consuming. As the notion of international accreditation was discussed among the community of architecture, there were also several different opinions from colleagues. Some were of the opinion that self-assessment will be considered as self-reflection, and was therefore needed for future improvement. Yet some pessimists view the transformation of the academic culture regarding the efforts for international recognition will take time. Overall, there are several aspects to be dealt with such as reluctance to change, less participation/involvement and time limitation.

In my personal experience, throughout the three phases of IDC, the participants were not only equipped with new substantive quality and faculty management issues, but there were many highly valuable experiences and practices to learn, including tricks and strategies in practical management. Furthermore, the PAPs of participants have also received support and guidance, mostly electronically, from regional trainer, thanks to the ICT development. I am of the opinion that learning through sharing personal experiences of my PAP with others will deliver enrichment and empathy to others. Learning about and accepting the differences will be the most vivid experience in higher education institutions. Another important aspect, offered by IDC, is possible networking and collaborations among participants and related institutions, such as CHE, DAAD, HRK, AvH, INDOSTAFF etc.

V Concluding remarks

This article deliberated on the curriculum development at the SAPPD ITB in relation to the continuous improvement and international recognition. In this context, the discourse is based upon the premise that the changing landscape of higher education in Indonesia represents a common feature of post-industrial society, in which the fluctuating status of higher education institutions is also part of the dynamic circumstances. Hence, insecurity, uncertainty and unpredictable future are indicated with the case of dynamic change in the legal status of ITB as a state university, i.e. from state, quasi autonomous, and finally back to the State University by Law. Despite such changes, the discussion comes up with a common insight, that quality assurance as part of quality and faculty management at university is still the greatest challenge in internationalisation of higher education.

Globalisation and internationalisation have been influencing the Indonesian higher education and vice versa. Related to the discussion of quality assurance, curriculum development of study programme will be defined by accountability and continuous improvement. In the curriculum development, complex and elusive process of deliberation and dissemination was revealed by the case in the architecture study programme. Evaluation of the programme's educational objective, KSE – as part of the 2005 international strategy-, vision and mission of the faculty and university to mention a few, have served as the essential considerations toward the assessment for quality assurance, and the basic argument for curriculum development as well.

As elsewhere previously expressed, a supportive academic culture in each academic community is necessarily to be initiated and maintained. This certainly may not be developed by itself, or is taken for granted that participation of respective stakeholders within the faculty will work automatically. Hence, new ways, methods, skills and strategies must be settled to initiate and invigorate the transformation of culture and attitude towards a better faculty management, including changing the mind-set. The contention I put forward, is that quality assurance in higher education institutions can only be achieved by a clear-defined accountability and relentless continuous improvement, and wide-ranging participation from their stakeholders.

To sum up: the overall progress of curriculum development at SAPPD ITB is still on the track, and it took longer that it was planned. The support from the community (faculty staffs) reflected the involvement of stakeholders, such as faculty and advisory boards from respective study programme. As also mentioned, time constraints and scope of work to some extent were inevitable and unpredictable. Some obstacles can only be resolved by the respective community. It is, however, important to convince the faculty member on the need of effective communication and creating a vibrant academic atmosphere. Last but not least, in the democratic system, one has to be able to live with differences (opinions, ideas, obstacles, priority etc.). This can only be achieved by creating empathy with other persons and colleagues.

Acknowledgement
The author would like to thank Prof. Dr. Peter Mayer for his painstaking and critical suggestions for the improvement of this article, and my sincere gratitude was handed to all the colleagues who have diligently involved with both the preparation for the KSE accreditation in the Architecture study programme and the curriculum development at the School of Architecture, Planning and Policy Development ITB.

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Bottom up Internationalization Strategy – Case Study on Internationalization at Universitas Muhammadiyah Yogyakarta (UMY)

Achmad Nurmandi

Abstract

This paper describes the process of internationalization at Universitas Muhammadiyah Yogyakarta (UMY) through organizational transformation as a part of a personal action project of the International Dean's Course. In 2009, university management changed the organizational structure to support university internationalization by setting up an international office. This organizational transformation affects the decision making process, especially related to internationalization.

Keywords: internationalization, organisational change, structural change and procedural change.

Introduction

Internationalization in higher education is widely understood as being a university's response to the economic, social and cultural changes known as globalization (Valiulis, 2006). Universitas Muhammadiyah Yogyakarta is trying to respond to the changing global world, particularly in Asia. Universitas Muhammadiyah Yogyakarta (UMY) is one of the leading Indonesian private universities, ranked according to the National Accreditation Board and listed among the best ten universities in Indonesia. UMY's students numbered 12.567 in the academic year 2011/2012. There are 25 available study programmes, including undergraduate and post-graduate studies. UMY has cooperated with 25 universities abroad to extend the international network. There are three goals that the university would like to attain from this cooperation, i.e. student mobility, lecturer mobility and the internationalization of all of existing departments. International events have been successfully held at UMY such as the International Conference on Public Organization (ICONPO), the International Nursing Conference, the International Conference on Sustainable Innovation and International Conference on Communication and Multiculturalism. UMY has been internationally recognized in the global *4ICU*-- the current ranking is based upon an algorithm including five unbiased and independent web metrics extracted from three different search engines: Google Page Rank, Alexa Traffic Rank, Majestic Seo Referring Domains, Majestic Seo Citation Flow and Majestic Seo Trust Flow--and *Webometrics*. Between five and eight years ago, UMY started to collaborate with a total of 25 universities and international institutions. Today, the twenty-five study programmes at UMY collaborate with various universities around the world. Memorandums of understandings specify that each department should enter into research collaboration, should support student exchange and participate in joint academic forums at an international level.

Formally, UMY has four study programmes with International Programme status, which symbolizes the beginning of an international institution through educational exchange, foreign lecturer recruitment, exchange lecturer and scientific international forum cooperation. This effort requires the development of an organizational strategy and initiative to guide the university, faculty, departments, and supporting units.

This strategic internationalization is facing difficult obstacles. From the 387 existing lecturers, only 20 % are ready to participate in international activities such as visiting lecture, joint research, and international publication. This is demonstrated by the low number of papers submitted by lecturers in international forums. By 2012, only seventy-eight papers were submitted by sixty different lecturers of various faculties and 48 papers published in international journals. Lecturers and college students are two important drivers of internationalization. Several steps were undertaken by the university management to encourage lecturers to participate in international academic activity, to increase lecturer mobility, and to promote the publication of their research. An increasing number of international activities will require significant changes in the university management. These changes are not favoured by all, neither from college students, lecturers, nor by staff.

This paper will explain the organizational strategy of encouraging internationalization through the amendment of organizational structure, organizational process, and culture. The transformation must overcome cultural problems among lecturers, academic personnel, leadership at the executive level, and non-educational staff in supporting the internationalization agenda.

Theoretical Review

The Internationalization of the University

Many terms are used to refer to the internationalization of a university. Some use the term world class university (WCU). Jamil Salmi (2009: 19–20) identified a WCU as an institution that has highly sought graduates, leading-edge research, and is successful in technology transfer. Success can generally be attributed to three interdependent sets of factors in a top university: (a) a high concentration of talent (faculty and students); (b) abundant resources resulting in a rich learning environment and advanced research; and (c) favourable governance features that encourage strategic vision, innovation, and flexibility, enabling institutions to make decisions and to manage resources without being encumbered by bureaucracy. Furthermore, he argues one way of accelerating the transformation into a world-class university is to use internationalization strategies effectively (2009: 60). These strategies enrich the quality of the learning experience by adding a multicultural dimension, attract foreign professors and researchers, facilitate publication, and promote an international, professional staff to assist in the university's transformation (2009: 61–63).

Internationalization was defined by Jane Knight (1994) as the process of integrating an international or intercultural dimension into the teaching, research, and service functions of an institution. Brandenburg & Federkeil (2007) make a distinction between "internationalization" and "internationality," i.e., between process and result. They define "internationality" as a status of international activities at an institution at a given time. Internationalization is thus intended to increase this level of internationality in a specified time frame. Both definitions above imply an understanding of the internationalization of a university as a continuous process aimed to integrate international and intercultural dimensions into learning, research, and dedication to community. As a part of this process, universities need to understand the internationalization process as one that is sustainable, starting from the low level to the upper level of the management. This process of study and research is involving foreign students and lecturers.

Jamil Salmi also states that time is an important dimension that needs to be factored into the strategic plan of the aspiring world-class university. Developing a culture of excellence does not happen overnight (Miller, 2007b), innovation and continuous improvement require certain cultural attitudes and commitment. The cultural change and the commitment of the decision maker become important factors as well as the increasing of their capability to interact with the international world.

Generally speaking, the aims of internationalization are as follows (Valiulis, 2006: 1):

- To promote multicultural and intercultural education;
- To contribute the improvement of the learning experiences of exchange students at host institutions;
- To contribute improving the teaching experiences of teachers who instruct exchange students in mixed groups with home students;
- To improve the level of intercultural competences of all those involved in university education;
- To raise awareness within universities regarding multiculturalism;
- To consider the exchange students' specific needs in the classroom;
- To promote continuous staff training for multi-culturalism and interculturalism.

Sporn's (1996) said organizational culture in the process of internationalization of universities such as the collegial process and executive authority are acknowledged as necessary to position the university to bring about substantive, integrated, university-wide internationalization in responding to pervasive and rapidly changing global environmental demands. Internationalization, viewed as an organizational adaptation, requires its articulation by the leadership while simultaneously institutionalizing a strategic planning process that represent and participate in which it recognizes and utilizes the power of the culture which it occurs. Davies (1993) noted that university management can apply four strategies in internationalization:

a. Quadrant A: ad hoc-marginal

The amount of international business is relatively small, sporadic, irregular, often knee-jerk way, with many loose ends in term of procedure and structure.

b. Quadrant B: systematic-marginal

The amount of business is still relatively small, but is well organised and coordinated. Areas of international activity are precise and explicit procedures in an ordered and systematic manner.

c. Quadrant C: ad hoc-high centrality

The amount of international business is considerable across a number of different categories and a wide range of market segment and client group. Whereas there may be some strong areas, marketing is usually ill-focused.

d. Quadrant D: systematic-high centrality

There is a large volume of international work in many categories, which reinforce each other and have intellectual coherence. The international mission is explicit and followed through with specific policies and supporting procedures.

Davies (1993) also said those categories are blurred in practice, but useful to analyse the position of a university's internalization strategy with such a framework. Most universities will start their international endeavours in Quadrant A and move toward following quadrant or mix strategy.

The change that happens in universities is generally accidental in order to maintain the organization's existence. Ian Palmer et al (2009: 25) identified the strategy which accidentally conducted by the organization in making changes. First, empirical-rational strategies assume that people are rational and follow their own self-interest. Effective change occurs when it can be portrayed as desirable and aligned with the interest of the group affected by the change. Secondly, normative-educative strategies assume that change occurs when people dispense with their old normative orientations and commit to new ones. Producing change intentionally according to this approach involves altering not just their knowledge and information, but their attitudes and values as well. Thirdly, power-coercive strategies rely upon those with greater power to influence the behaviour and compliance of those with lesser power. Power may be exercised through legitimate authority or through other, less legitimate and more coercive means.

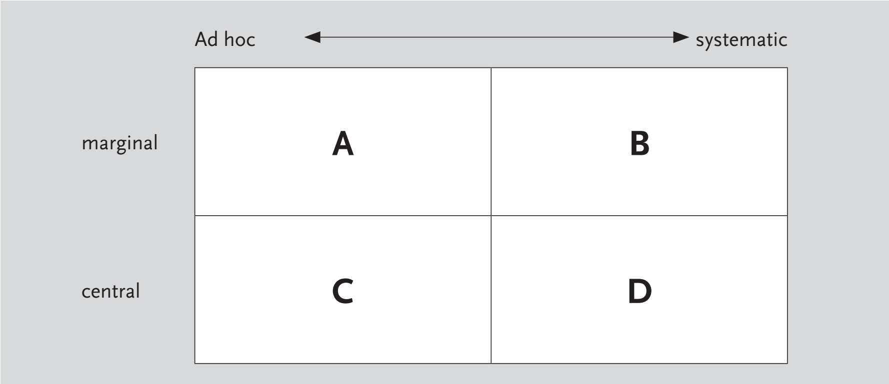

Figure 1: Typology of internationalization strategies in practice
Source: John L. Davies, University strategies for internationalisation in different institutional and cultural settings, paper presented at the Fifth Annual EAIE conference, The Hague, 1993.

University as a unique form of organization has some distinctive organizational chemistry, namely managing highly-educated human resources (talent), producing knowledge services in the form of research and human resources, and managing information and knowledge. Mercer and his colleagues draw a link between structure, university organizational form, and knowledge management.

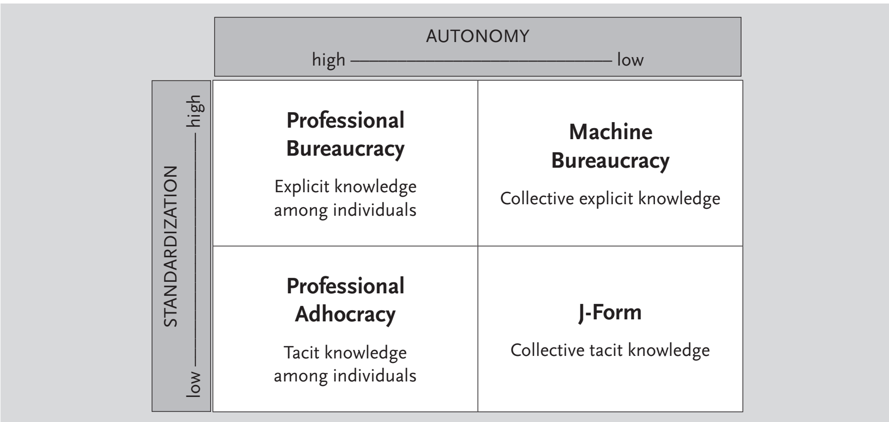

Figure 2: A typology of organizations and their orientation towards knowledge
Source: Doug Mercer et al., “Public agencies and Environmental Risk: Organizing Knowledge in a democratic context”, in: Journal of Knowledge Management, 2005, vol. 9, issue 2, h.6.

In professional organizations, such as universities and hospitals, which have highly knowledgeable, specialized, and autonomous members, the dominant type of knowledge sharing is the sharing of explicit knowledge between individuals. Adhocracy organizations have low levels of knowledge standardization and high autonomy. Thus, the process of knowledge creation prioritizes tacit knowledge attached to each individual. Bureaucratic organizations rely more on explicit knowledge because the level of knowledge standardization is high and individual autonomy is low. Because government organizations tend to be of a bureaucratic, machine nature, explicit knowledge is more dominant as a result of high standardization and low individual autonomy.

Changes in organizational structure are usually followed by changes in process, which refer to changing patterns of interaction among employees in the organization. Hierarchical patterns of relationships become more horizontal and diagonal. This new pattern becomes critical to knowledge creation in the organization. With rapidly changing external circumstances and government regulations, decentralized organizations face the need to have a strategy to define the visions, missions, and goals of the organization. According to various studies of local government organizations in England, bureaucratic, hierarchical, and non-strategic approaches are widely used in responding to external changes. Organizational structure is the pattern of rules, positions, and roles in an organization, including division of labour and authority division patterns. Key elements of organization structure are as follows:

1. Level of differentiation
2. Integration
3. Level of centralization
4. Degree of formalization
5. Specialization

The Fact of UMY's Internationalization Process

In 2001, a process of internationalization has formally begun by the opening of several international programmes in the International Relations Department. The change has been occurring very slowly, corresponding to the increasing number of lecturers holding a doctorate. Not all faculties have the same perception of internationalization. Among the existing seven faculties, only the faculties of Social and Political Science, Law, and Public Health engage in international cooperation. In 2011, faculties and departments held a workshop on July 30, which was the first workshop ever held on these issues. The discussion topics were as follows:

1 Policies and Strategies

The policy, design, and strategy of the university within the context of internationalization should be designed as follows:

a. Design and formulation organisational design for international cooperation.
b. The internationalization strategy should observe the following aspects:
    1) Reinforcement of the Partnership Bureau in managing internationalization.
    2) Financial and resource support.
    3) Facilities and service support, namely in the forms of an international standards information system (website) in various languages, a student dormitory, housing for foreign staff, insurance, information.

2 Organization and Management

- Partnership Bureau should support the internationalization units, with main tasks including:
    a. Preparing MoU and MoA by consulting with the core units to be initiators.
    b. Overseeing the immigration of foreign students and lecturers.
    c. Preparing pre-curricular programmes for foreign students.
    d. Searching for opportunities to cooperate and international funding to support the academic activities.
- The University should prepare the accommodation for foreign students and staff.
- Faculties' and Departments' tasks should include:
    a. Providing the academic services for foreign students.
    b. Providing the academic services for foreign staff.
- Public Relations and Partnerships Bureau's tasks should include:
    a. Publishing information for foreign students at www.umy.ac.id
    b. Insuring compliance with international website standards.
    c. Reporting all events on the website.
    d. Publishing documents and reports for partners abroad.
- Quality Control Board's tasks should include:
    a. Evaluating the internationalization programme and activities in the departments, faculties, and university-wide.
    b. Auditing academic quality assurance in accordance with the National Accreditation Institution of Universities (BAN PT) and international standards.

- The Rector should be responsible for the international cooperation.
- The Vice Rector III should function as a Rector in the international cooperation.
- The Management should improve planning, leadership, coordination, synchronization, and integration among working units.

3 Academic and Student Programme

a. The learning processes in engineering and medical sciences comply with the international standards and are accredited. Curricula entirely in English have recently been implemented in four courses and recommended that students to be classified according to their fluency in English.
b. Designing structured exchange programmes in inter-curricular way and finding more university partners overseas. The target of fifty per cent of courses having student exchange programmes was proposed.
c. The enhancement of international study programmes at Universitas Muhammadiyah Yogyakarta. Currently, there are two faculties that have implemented such programmes, namely the Islamic Studies Forum of Students (FKIM) and the Faculty of Social and Political Science.

4 Lecturers and Administrative Officials

a. Internationalization of lecturers is approached as follows:
   1) Increasing the number of lecturers who conduct research abroad.
   2) Increasing the number of lecturers who present papers at international conferences.
   3) Increasing the number of lecturers who teach abroad.
b. Recruitment of Foreign Lecturers
   1) Increasing the number of foreign lecturers in specific courses in accordance with financial feasibility.
   2) Increasing the number of foreign researcher financed by external funds.
a. International Research Network
   1) Increasing the number of lecturers' research funded externally.
   2) Broadening of collaborative research with foreign lecturers.
a. Research Output
   1) Increasing the number of published articles in international journals.
   2) Increasing the average number of citations per publication.
   3) Increasing the papers presented at international conferences.
   4) Increasing the number of patents registered.

5 The Establishment of International Programmes

a. The internationalization of courses can be started immediately, adapted to each professor's readiness and ability. If the current proportion of able lecturers is low, internationalization can first take the forms of research collaboration, research fellows, and/or visiting professors.
b. A minimum of 50 % of lecturing staff with doctorates, English language proficiency, and international experiences is recommended to establish an international programme.
c. To enhance lecturers' capability, it is most important to encourage doctorate study.
d. Develop the number of administrative staff who handles international activities.

Changes in organizational structure and collaboration among the departments become learning activity in developing the new programme. Each department tries to communicate each other in order to solve problem in newly programme, such as foreign lecturer, foreign students or visa arrangement for students. They develop international collaboration based on their network. In this process, they made policy, standard and programme or activities based on best practices that have been successfully implemented. This process causes the spreading of new knowledge about international programmes among them. As a result, the organizational culture was influenced. Each party such as lecturer, students and university staff has new demand, such as students who have high interest to follow the mobility programme abroad, the high learning interests of staffs and the increasing number of lecturers to participate in the international conferences.

In 2009, the process starts with the establishment of the organizational structure of the department-level international programme called the International Programme of International Relations and International Programme of Law. Actually, policies, standards and processes of newly programmes are created by faculty and supported by the University. The success in university management requires managing the relationship among structure, process, and culture. Developing a culture of excellence does not happen overnight. The cultural change takes long time for each department which has its own work culture, as being described in the below figure.

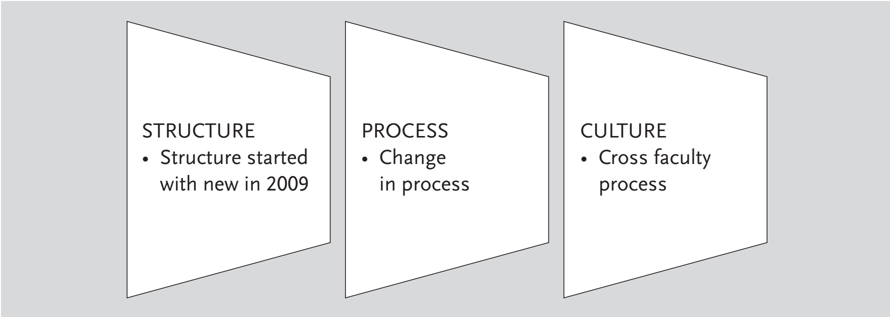

Figure 3: UMY's Change Process

The progress in university organization was dynamic, especially since 2009 under the leadership of the Rector Ir. Dasron Hamid. The Rector had a clear international vision and stimulated the departments to engage in the international cooperation. This vision manifested itself in the participation of UMY in Asia Pacific University Association (APUA), a university consortium in Asia and the Pacific, and in cooperation with universities abroad. The Rector conducted the organizational change by transforming the Cooperation Bureau into the International Cooperation Bureau which the responsible unit is to coordinate all international activities. He furthered the integration and differentiation by giving greater authority to the International Cooperation Bureau or International Office. The changes made include four aspects: leadership, human resources, culture, and technology. This Bureau facilitates international cooperation by organizing all departments that can deal with non-academic issues, such as student visas, accommodations, and pre curricular – activities for foreign students. These findings also confirm John Taylor's study on university internationalization strategy commonly signalled by reorganization within the institutional management. Many universities have operated international offices for several years, commonly on the back of international student recruitment (Taylor, 2009).

Meanwhile, the academic activities can be differentiated in the departments based on the competency. Departments are units that explore internationalization activities and find out how they have been or will be performed. Departments that actively conduct the international cooperation are:

a. Department of Government Affairs and Administration (IGOV)
b. Department of International Relations (IFIREL)
c. Department of Civil Engineering

d. Department of Economics (IFIEF)
e. Department of Law
f. Department of Medical Sciences

Market demands on graduates to have international competences encourage the departments to conduct international activities. Doctors and engineers must have certifiable skills not only recognized in Indonesia, but also in the other ASEAN countries. However, integration and differentiation often encounter obstacles. These departments are reluctant to coordinate, and the International Cooperation Bureau does not also have the authority to steer all departments in the faculty. The primary challenge is because of the existence of the hierarchical decision making between the Vice Rector for Academic Affairs and the International Cooperation Bureau. The Bureau cannot make the strategic decisions and will frequently rely on the Vice Rector for Academic Affairs. It can be concluded that important procedural changes to internationalization include more cooperation between faculty and departments, more support from leadership, and less hierarchical decision-making processes.

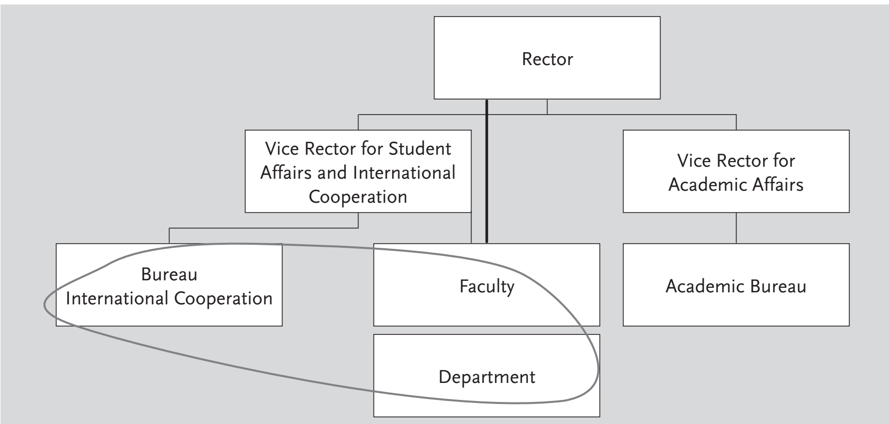

Figure 4: Organizational structures in charge of internationalization

The units within the red circle are the International Cooperation Bureau, faculties and departments actively involved in the organizational process of conducting internationalization activities. This network is a response of the Vice Rector for Academic Affairs and Vice Rector for Student and Cooperation regarding the international cooperation. Initiatives for planning, implementation, and monitoring are performed by the working units. The Rector serves to legitimize the activities that have been carried out by the working units. To solve this problem, all units and departments that share commitment to internationalization should encourage non-hierarchical and cross-departmental cooperation. In the collaboration among departments, it is interesting to note that the work relationship between the units or departments is able to handle the organizational hierarchical problems and the faculty demarcation or cross-faculty cooperation contributes to departments' ability to manage the internationalization process. The key point is that the international strategy cannot exist in isolation. Moreover, the international strategy must concern with the internal university arrangements, not simply the external environment (van der Wende, 1999).

One of the priority areas of the internationalization at UMY is the increase of student mobility. By this programme, students can take credit transfers in one semester at a partner university or sit-in programme. Important aspects are student mobility for credit transfer, number of foreign student, and student mobility for non-curricula activities. Another dimension of internationalization is lecturer mobility: lecturer exchange, lecturer mobility for scientific forum and joint research. And there is a third dimension: internationalization of the faculty or department: the faculty or the department should get more involved in international activities and for example successfully manage international scientific forum in cooperation with foreign universities.

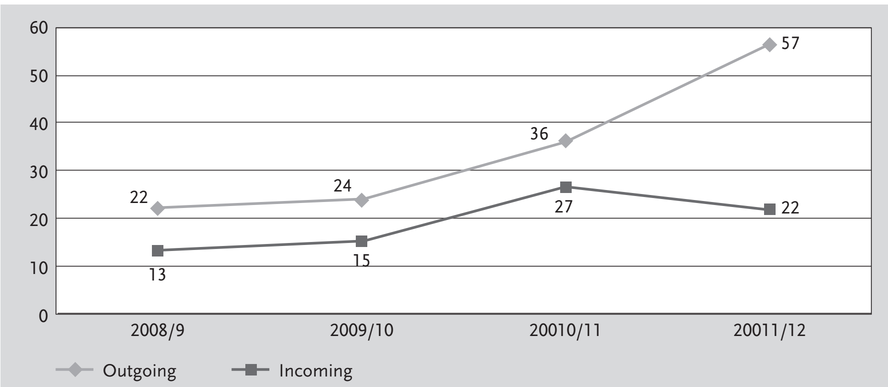

Figure 5: Student mobility
Source: Rector Report, 2012.

The number of student mobility in 2008/9 academic year was 12 outgoing students and 3 incoming students and became 45 outgoing students and 12 incoming students in 2011/12. The increase of the number of incoming students results from mobility schemes within international programmes. Mobility schemes allow credit transfer from partner universities in Malaysia, China and Thailand.

The second area of UMY's internationalization strategy refers to research output. According to the German Center for Higher Education Development (CHE) there are seven indicators used in research output such as number of international publications per researcher, number of international citations per paper CPP, number of international publications per researcher and number of international citations, measured by global standards according to CWTS, number of Highly Cited Authors (HiCi) according to Thomson, proportion of HiCis relative to the total number of researchers, number of international conference contributions per professor/researcher, and number of international patents per professor/researcher.

No	Aspect	Number
1	Number of international publications per researcher	0.35
2	Number of international citations per paper CPP	4
3	Number of international publications per researcher and number of international citations, measured by global standard according to CWTS (to be used only for each discipline separately, comparable indicators may possibly be available for non-natural scientific disciplines in the future)	–
4	Number of Highly Cited Authors (HiCi) according to Thomson (subject-related)	––
5	Proportion of HiCis relative to the total number of researchers (subject-related)	–
6	Number of international conference contributions per professor/researcher	1,5
7	Number of international patents per professors/researcher	na

Table 1: Research Output 2011/12
Source: Uwe Brandenburg and Gero Federkeil, "How to measure internationality and internationalisation of higher education institutions! Indicators and key figures", Working Paper No. 92 2007, Center for Higher Education.

In 2011/12 academic year, UMY's number of international publication per researcher was 0.35 (the number of researchers 100 persons with 35 articles published in international journal) and number citations per paper at 4 Of 35 published papers in the international journal, 45 % was papers the agricultural and engineering sciences, 55 % paper is in humanities, social and business sciences. Strategy used to increase the number of publication is the reward system for lecturer, research fund provision and special fund for publication in international journal.

Lecturer exchanges are relatively successful at an adequate level, as seen in Figure 6. In the 2011/12 academic year, the number of both incoming and outgoing academic staff increased substantially. One factor behind this fact is that each department stimulates their staff to teach or do research at a foreign university. This trend can be related to the need of each study programme to manage its internationalization separately, because it was no longer possible to guide the process centrally. For example, the Nursing Department of Medical Sciences Faculty and Governmental Affairs and Administration Department of Social and Political Sciences Faculty established partnerships with foreign universities in the form of student exchanges and conferences. This partnership was recognized by the university in the form of a memorandum of understanding (MOU). The Faculty of Engineering collaborated with the Eindhoven Technical University, Netherlands, initiated by the department and not by the university. Furthermore, many initiatives of the university failed because the faculties and departments were not involved in the negotiation process and they were not suited to the departments' needs. On the other hand, international programmes organized by the departments could run successfully in their respective faculties without any guidance from the central units of the university.

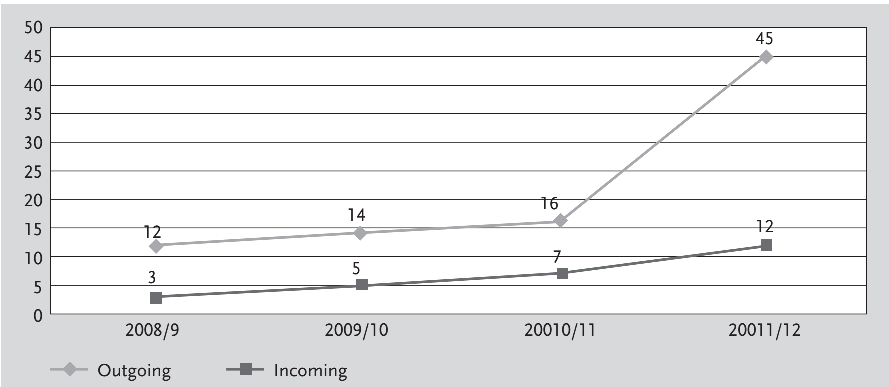

Figure 6: Staff mobility
Source: Rector Report, 2012.

It is thus using David conceptual framework above, we can find that UMY's strategy and programme of internationalization is *systematic and low centrality or decentrality*. Each unit in UMY has created international links and worked together to formulate the programme. In a workshop done in 2010, all departments came together to design an internationalization programme, particularly in academic matters and how to promote their programmes. The International Cooperation Bureau is only responsible for the technical matters to support all departments. This is learning by doing scenario in which units learn from each other to solve problems and to develop international activities.

Decentralization of decision making process in internationalization can be also illustrated by the Faculty of Social and Political Science and their efforts to enhance international cooperation. Since the beginning, the Faculty of Social and Political Science has had a comprehensive vision of internationalization and has developed international standards in education, research, and service to society based on Islamic values. With this vision, all sub-units strive to encourage internationalization activities. A survey of stakeholders has shown that the Faculty of Social and Political Science's international positioning has become an important issue.

Based on the survey done, it is increasingly clear that internationalization has become the primary issue for the faculty. The structural change in the Faculty of Political Science is to develop an International Programme of Governmental Studies and International Programme of International Relations. Two managers of this new programme are secretaries who are responsible to the head of division or department. However, the tasks given to the secretary of the international programmes is heavier than regular courses. This is because the secretary for international programmes must prepare programmes for foreign lecturers, students and lecturer mobility. One of the priority issues is to increase the number of foreign students through exchange programmes. An exchange programme is an important part of a strategy for internationalization in the Faculty of Social and Political Science. The exchange programmes can take many different forms, including reciprocal arrangements with no financial implications and cooperative agreements based on the application of local fees. Some of the activities to increase student mobility of Faculty are:

- enhanced facilities for students visiting under exchange programmes including accommodation,
- cultural programmes, and language study;
- bursaries to reflect different cost structures overseas;

- degree structures and course prerequisites must be made more flexible to facilitate credit transfer from overseas study and systematic planning and reporting of results;
- models of credit transfer and overseas study need to be developed to provide reference points; and
- the benefits of overseas educational experience need to be marketed vigorously with students.

Low level and mid-level of academic unit's leadership simultaneously learn and institutionalize a strategic process from best practices of established international programme to articulate their goals.

The second strategy done by the Faculty of Social and Political Science is by organizing international scientific forums at UMY. Beginning in 2011, the Department of Government Affairs and Administration has successfully collaborated with Thammasat University, Korea University and Mindanao State University to host the International Conference on Public Organization. The annual forum was held again in Korea and Bali in 2012 and 2013. Through this forum most of the lectures took the opportunity to become speakers and sent their articles to international journals. The Department of Communication Studies also organized an international scientific forum at UMY collaborated with Universiti Sains Malaysia and the Mindanao State University to host the International Conference on Multiculturalism and Communication. Meanwhile, the Department of International Relations will organize the International Conference on International System in 2013.

The third strategy is to conduct joint research with university partners based on a memorandum of understanding which has been signed. Foreign lecturer invited to teach at UMY became a lecturer research partner. Until now there are two joint research titles between UMY with USM and Thammasat University

An internationalization of the organization's values has been taking place, especially in the past two years, both in formal and informal forums. Related to internationalization, the value of professionalism is a leading value for the organization. The importance in supporting the internationalization is the proportion of academic staff able to adapt the changes brought by the internationalization. The value of the commitment, honesty, cooperation, and trust each other are the important values as described in the above result of the survey. The findings are consistent to the result of changes in the process of internationalization that have been explained above, namely all unit work each other in order to run the programmes jointly for their shared interest. The change that has been taking place for almost four years shows that the transformation of the organization influences its culture.

Conclusion and Future Research

It can be concluded that the internationalization process at UMY is not mainly driven by the strategy which is well-formulated at the university level or which derives from the vision of the university leadership. It is rather shaped by the actors of the decentralised units of the university. The departments that are getting involved in the internationalization process collaborate with each other to jointly overcome problems and to formulate goals based on shared interest. After the result which have been achieved by individual departments and taking note of the significant implications and impact of decentralised activities, the university leadership claims the successful programme as being part of the university strategy. The phenomenon leads to a new understanding of university organization that innovation is merely coming from the smaller academic units at the central level. The future research is expected to be able to reveal many more innovation processes at the lower academic units by cross-national comparisons.

Acknowledgment

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Development of Strategic Action Plan for School of Pharmacy, Ahfad University for Women, Sudan

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Abstract
This paper describes the Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis and the subsequent development of a strategic plan for the School of Pharmacy, Ahfad University for Women, Sudan; using the Project Action Plan (PAP) tool. The SWOT analysis was based on internal self-studies. Strategic objectives were developed into strategies and actions to address weaknesses and threats by effectively leveraging the strengths and opportunities. An operational plan was developed, which includes specific actions, a timeline for relevant activities and those responsible to implement them.

Keywords: Strategic planning, SWOT-analysis

1 Introduction

Strategic planning is a means of establishing major directions for the university, college/school or department. Through strategic planning, resources are concentrated in a limited number of major directions in order to maximize benefits to stakeholders, those we exist to serve and who are affected by the choices we make. In higher education, those stakeholders include students, employers of graduates, funding agencies, and society, as well as internal stakeholders such as faculty and staff (Paris, 2003).

McConkey (1981) said that the essence of strategy is differentiation. What makes this university or college or department different from any other? Educational institutions, like other service organizations, can differentiate themselves based on types of programs, delivery systems, student clientele, location, and the like. Similarly, a department or administrative unit involved in strategic planning will identify its unique niche in the larger university community and focus its resources on a limited number of strategic efforts, abandoning activities that could be, should be, or are being done by others.

The Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis provides a framework for educational administrators to focus better on serving the needs of their constituencies (Balamuralikrishna and Dugger, 1999).

The School of Pharmacy at Ahfad University for Women is the newest school in the university; it has been established in 2001. The pharmacy program has been designed in accordance with the international standards and criteria of pharmacy education to serve the goals of the development plans of the university in preparing the graduates to fit in different job sectors within the field of specialization.

Based on the Project Action Plan (PAP), which I developed during my participating in the International Deans' Course (IDC) Africa 2011–2012, the School of Pharmacy carried out a series of surveys (e.g., employers, graduating senior students, and faculty members) to obtain feedback of its constituencies on some key issues related to its pharmacy programs, facilities, and policies. These survey results are used to develop a detailed SWOT analysis for the whole school. SWOT analysis is a simple, easy to understand technique.

An operational plan for the school was developed to identify strategic objectives and strategies to achieve those objectives. The plan includes specific actions, a timeline for relevant activities and those responsible to implement them.

The purpose of the PAP was to develop the School of Pharmacy, Ahfad University for Women, Sudan strategic action plan. The reasons of developing the school strategic action plan were to develop the vision and mission of the school, to perform self-assessment using SWOT analysis and to develop a structured action plan for the period 2012–2016.

2 Methodology

To achieve the set objectives, a committee consisting of the programme coordinators (HOD), representatives from School of Medicine, School of Health Sciences and students was appointed to perform the SWOT analysis.

The committee spent six weeks on drafting the SWOT analysis report. The committee first studied the draft format of the Project Action Plan (PAP) already developed by the deputy dean (the PAP is shown in Table 1). They called meetings of staff, professors and programme coordinators within the school. Finally, a SWOT analysis of the school capabilities was done to ascertain our strengths, weaknesses, opportunities and obstacles. The main purpose of this analysis was to complement the strategic planning activities, and to help in establishing strategic objectives.

Another committee consisting of programme coordinators (HOD) only was appointed to look on the SWOT analysis report and to design improvements.

3 Summary of the SWOT Analysis

Strengths:

1. Ahfad University for Women being the only university for women in the Sudan enjoys the advantage of attracting female students of good academic standing from both local Sudanese schools and from abroad.
2. The teaching staff at the school whether full-timers or part-timers are academically distinguished in their fields of specialization.
3. The school has established its own local library, which contains an excellent collection of up-to-date textbooks and reference books. The reading room where the library is housed also contains sufficient number of computer sets available for the students.
4. Apart from the laboratories run by Ahfad Center for Science and Technology the school of Pharmacy has established special laboratories which are very well equipped with up-to-date apparatuses. Moreover the School has its own small animal house which provides experimental animals for teaching and research. The technical staff running these laboratories is very well trained.
5. Recently a very highly specialized Biotechnology lab, which is available to serve the community and pharmacists, was established in the school. It is the first lab of its kind to be established in the country.

6. A teaching hospital is also available for training the students in management of hospital pharmacy and clinical pharmacy.
7. The curriculum of the school includes supporting subject such as Business Administration and Nutriceutics to support the students.

Weaknesses:
1. Like most other schools of pharmacy in the Sudan our school is understaffed mainly due to scarcity of qualified pharmacy teaching staff.
2. Although the school has adequate teaching theatres, some of these theatres are rather uncomfortable due to overcrowding and lack of adequate ventilation.
3. Audio-visual and teaching aids are neither sufficient nor satisfactory.
4. Some of the laboratories still need additional equipment.
5. Selection of students to the school needs more scrutiny

Opportunities for the school:
1. The University enjoys good links with other universities in the Sudan and abroad. However these links are not fully utilized by the school of Pharmacy
2. With its presently available laboratory facilities the school of Pharmacy is in a position to offer postgraduate studies for its own graduates and graduates from other universities.

Threats:
1. Students intake for the schools of pharmacy is expected to decrease in the future due to the increase in the number of schools being founded in other universities.
2. The overall job opportunities for the pharmacists are becoming less and more competitive.
3. New technologies, such as gene therapy and biotechnic drugs are expected to replace traditional drugs in not the too distant future. It is imperative that the students should be made aware of these new, rather sophisticated techniques and to be able to cope with them when the time comes.

4 Action steps

Based on the internal strengths and weaknesses of the school the committee recommended for approval the following action steps:

4.1 Academic Excellence

4.1.1 Staff development program

- By the end of the year 2016 the School of Pharmacy aims to appoint 6 PhD holders in different pharmaceutical areas (Clinical Pharmacy, Medicinal Chemistry, Pharmacognacy, Pharmaceutics, Pharmacology and Biochemistry).
- In the year 2012 we will appoint 4 TA.
- In the year 2012 the already appointed 4 TA will be send to do their Masters degrees in Pharmacognacy, Pharmaceutics, Medicinal Chemistry and Biochemistry.
- When the above mentioned 4 TA gain their Masters the 3 existing lecturers will be send to do their PhD degrees by the end of the year 2014.

4.1.2 Linkages with other institutions

The School will seek collaboration with educational, professional and research institutions. Forms of collaboration will include: staff and students exchange, accreditation, joint programmes and joint research.

4.2 Research development

Research is the energy that drives a basic research university forward. Conducting high-quality free research is a prerequisite for educating students at the highest level, disseminating knowledge and commercializing research results. Strong research environments attract scientists and students who are highly qualified, ambitious and full of initiative.

As a small school, we can quickly adapt and promote the integration of research areas throughout the University. We have excellent opportunities to have cooperation on health science, natural science and biomedical subjects with faculties in the School of Health Sciences and School of Medicine. Therefore, we will aim to create and activate research groups.

4.3 Improve quality of teaching

- Establishment of Educational Pharmacy by the year 2014 to improve the quality of teaching and learning of pharmacology.
- Supply the school library with more books and e-journals.
- Rehabilitate the different laboratories with equipment and materials.
- Establishment of seminar rooms.

4.4 Community services

To provide pharmacy-based services and outreach activities to the community, we will:

- Expand the involvement of faculty and students of the School of Pharmacy in University health outreach programs and activities.
- Develop the School's website as a "hub" for the profession of pharmacy in AUW with a web portal of educational materials, including information and resources related to the profession, (for example, continuing education programs, alumni activities, awards, etc.).
- Promoting relationships with alumni via a variety of outreach activities.

5 Conclusion

A recent SWOT analysis and the subsequent development of a strategic plan for the School of Pharmacy, Ahfad University for Women, Sudan has been approved by the academic council of the university. Strategic objectives have been developed into actions to address weaknesses and threats by effectively leveraging the strengths and opportunities.

In order to be most effectively used, situations change with time and an updated analysis should be made frequently. If significant changes are detected, adjustments should be made in the strategic planning document.

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Activity A: Create awareness on strategic planning and quality management to students and staff.
1- Meet with the VP academic affairs and the dean of the school to discuss my PAP. 2- Organize two separate meetings one for the staff and the other for the students to Create awareness on QM to address the questions: like what is QM? Why it is necessary? Who should assess the QM test and how? QM in Sudan in general and School of Pharmacy at Ahfad University will be addressed. After these questions are answered, then we will design what to do base on the findings.
Milestone A: Staff and students were reviewed on quality management
Activity B: To perform self-assessment using SWOT analysis
1- Formation of a committee consist of Programs coordinators (HOD), representatives from School of Medicine, School of Health sciences and students to perform the SWOT analysis. 2- A one day workshop on SWOT analysis will be organized for the committee responsible for this activity. 3- The committee will meet on weakly basis to perform the analysis.
Milestone B: SWOT analysis was done.
Activity C: To prepare self-assessment report
1- HOD and senior staff members will meet to discuss the SWOT analysis report and the improvements designed by the above committee and prepare self-assessment report.
Milestone C: Self-assessment report was prepared
Activity D: To discuss the self-assessment report at the school level and at the university level
1- School board meets for the consideration of the self-assessment report. 2- The report was endorsed by the VP academic affairs. 3- The report was approved by the academic council.
Milestone D: Self-assessment report was approved
Activity E: Preparation of the school strategic action plan
1- Circulate the self-assessment report to the staff members. 2- Formation of a committee consists of programs coordinators and senior staff member to prepare the school strategic action plan. 3- Discuss the school strategic action plan at the school board and approved.
Milestone E: School action plan was ready for implementation

Table 1: Project Action Plan (PAP)

Communication Strategy for Enhanced Departmental Attractiveness and Visibility to Stakeholders at Pwani University in Kilifi, Kenya

Halimu Suleiman Shauri

Abstract

The Department of Social Sciences at Pwani University houses several disciplines namely History, Archaeology, Political Science, Psychology and Sociology. Accordingly, the different professional inclinations require a viable communication strategy that can ensure departmental attractiveness and visibility to staff, students and other stakeholders, which is currently lacking. The purpose of this Project Action Plan (PAP), therefore, was to enhance the attractiveness and visibility of the department using a Communication Improvement Action Plan (CIAP), herein referred to as Communication Strategy. The CIAP was achieved through triangulation of project implementation methodologies namely consultations, brainstorming, mind mapping, meetings and an analysis of Strength, Weaknesses, Opportunities and Threats (SWOT). A detailed Project Action Plan was developed to provide a road map for the implementation of the Communication Improvement Action Plan (CIAP) in the form of a matrix. Efforts were however made to cascade the PAP horizontally in other departments and vertically in an effort to moot a University Communication and Documentation Centre (UCCDC) and develop a university wide Communication Policy.

Keywords: Communication Strategy, Departmental Attractiveness and Visibility, Social Sciences

Introduction

The Communication Improvement Action Plan (CIAP) was carried out in the Department of Social Sciences. The department houses several disciplines namely History, Archaeology, Political Science, Psychology and Sociology. The selection of the Project Action Plan (PAP) topic was based on the need to develop an efficient and effective communication strategy in the Department and University at large. The lessons and best practices accruing from the strategy were to be up scaled to other departments and to the entire university with a view of developing a University Communication and Documentation Centre (UCCDC) and a college wide Communication Policy.

Pwani University (PU) was established through a Presidential Order on 23rd, August, 2007 in Kilifi, Kenya by upgrading the Kilifi Institute of Agriculture (KIA) into a University College. Accordingly, this was a new institution that was still grappling with many infrastructural and system development challenges. For instance delayed and ineffective communication has been one of the major challenges facing the institution's operations and development. Importantly, poor communication has ramification for departmental (college) attractiveness and visibility to stakeholders.

The choice of the action plan, therefore, was in response to the realization of the fact that the Department of Social Sciences in the School of Humanities and Social Sciences and indeed the entire University lacks an efficient and effective communication strategy that could enhance attractiveness and visibility of its programs to staff, students, suppliers, researchers, collaborators and the local and international community. Lack of an efficient and effective communication strategy has made it difficult for the Department of Social Sciences and the College to attract requisite number of students in some disciplines despite the availability of competent staff and the necessary infrastructure for such academic programs.

It is within the confines of such challenges that a Communication Improvement Action Plan (CIAP) was envisaged to enhance departmental attractiveness and visibility to the stakeholders locally and internationally. More significantly, as the Kenya government aspires to become a middle income country by the year 2030, there is a need to link the desire with an aggressive communication of the competencies, infrastructure, creativity and innovation that will inevitably make the department and the college a more attractive and visible institution nationally, and internationally, hence contributing towards this vision.

Indeed, globally one of the ways to rate departments and institutions of higher learning is through the quality of delivery, research and community service. However, these competencies cannot be a reality in the minds of stakeholders and cannot be shared in the absence of an effective communication strategy. For instance, African universities have been performing poorly in global rankings, partly because of a lack of ground-breaking discoveries in sciences, including Engineering and Information Communication and Technology and in Humanities (Njenga et al 2008). Other writers call for a complete re-engineering of higher education in Africa and developing countries (Africa Union 2006).

This notwithstanding, the case for Africa and many other developing countries is not a case of lack of discoveries and innovations in science and technology but a case for lack of an effective communication strategy to showcase what infrastructure and competencies are available in these institutions. Indeed, many institutions of higher learning produce research and develop innovative technologies but have not been visible nationally and internationally because of a lack of an elaborate and effective communication strategy to enhance institutional or departmental attractiveness and visibility in the global arena.

It is against this background that the CIAP project to enhance the Department of Social Science's attractiveness and visibility at Pwani University in Kenya was conceived and mooted. Furthermore, the successes and good practices of this PAP were to be cascaded horizontally to other departments, schools and vertically to the entire institution and elsewhere.

Objectives

The broad objective of the PAP was to develop an efficient and effective communication strategy to enhance:

(a) The Department of Social Sciences attractiveness and visibility to stakeholders and
(b) Cascade the successes and good practices to other departments, schools, the entire college and elsewhere.

Methodology

The project used a triangulation of methodologies to achieve the PAP objectives. This PAP was to be implemented using a multi-stage approach. The ***first stage*** involved consultations with the various stakeholders with a view to brainstorm and mind map on the departmental communication situation, create awareness on the importance of Communication Needs Assessment (CNA) and the formation of the departmental Communication Strategy Committee (CSC). The stakeholders involved included staff, both teaching and non-teaching, students at all levels namely degree and post-graduate, suppliers and the general community. The vision in all these processes was to come up with an analysis of the communication situation in the department. The results of the Situational Analysis (SA) were used to map out a Communication Improvement Action Plan or strategy for the department.

In the ***second stage***, a committee with representation from stakeholders was formed from the consultations whose mandate was to design the CIAP and oversee the implementation of PAP. Most importantly, the committee was to ensure the participation of the stakeholders and was to have the mandate, in consultation with the Chairman of the Department, to undertake the situational analysis using brainstorming, mind mapping and Strength Weakness Opportunities and Threats (SWOT) analysis. The findings of the situational analysis were the foundation upon which the PAP was to be developed and implemented to address the problem in form of a matrix. The CIAP or communication strategy was envisaged to implement efficient and effective persuasive ways of passing messages to stakeholders that was to ensure attractiveness and visibility of the departmental undertakings.

The ***final stage*** was to involve activities and processes to cascade the successes and best communication practices of the CIAP horizontally, to other departments, and vertically to other schools and the college. The idea was to influence the adoption of CIAP by other units of the college. In addition, advocacy and lobbying was to be conducted using the successes of the developed CIAP to influence establishment of a Communication and Documentation Centre (CDC) in the college with a mandate to take charge of college communication and documentation and develop a communication policy or strategy for the college. The latter was envisioned to have the potential of enhancing efficacy of communication that can consequently enhance attractiveness and visibility of the college activities locally, nationally and internationally.

Summary of SWOT Analysis

An analysis of the Department of Social Sciences Strengths, Weaknesses, Opportunities and Threats was conducted by the committee to determine the possibility of developing the CIAP for achieving departmental attractiveness and visibility within the School of Humanities and Social Sciences at Pwani University in Kilifi, Kenya.

Strengths
- Availability of trained departmental human-power in various areas of specialization in the discipline areas
- Availability of internet connectivity
- Goodwill and support from the university administration
- Existence of infrastructure, some of which inherited from the former Kilifi Institute of Agriculture (KIA)

Weaknesses
- Lack of a communication strategy to enhance departmental attractiveness and visibility
- Lack of adequate communication infrastructure and hardware devices
- Lack of a communication and documentation coordination centre in the college
- Lack of a communication policy

Opportunities
- Availability of a university website and internet connectivity
- Goodwill and support from the university administration
- Infrastructure from the former Kilifi Institute of Agriculture
- Knowledge of staff members in Information, Communication and Technology (ICT)

Threats
- Competition from other departments from within and without the college for attractiveness and visibility of the programmes
- Lack of funds to finance certain strategic communication activities
- Lack of seriousness by the ICT department in improving the college website.
- Irregular and slow internet connectivity

Approval
To ensure acceptance, ownership and successful implementation of PAP, approval for the project was sought through the Chairman, Department of Social Sciences from the Vice Chancellor, Pwani University through the Dean, School of Humanities and Social Sciences. Upon approval, the PAP implementation commenced as detailed in Matrix I.

Description
Activity C: Departmental Meeting **Sub-activity** • Call a departmental meeting to create awareness on the attractiveness and visibility status of the department and suggest the need for a stakeholders meeting to chat the way forward

Description
Activity D: Stakeholders' Meeting **Sub-activity** • Stakeholders awareness of PAP with a view of enlisting support and ownership of the project through formation of a departmental Communication Strategy Committee (CSC) comprised of stakeholders with mandate to develop PAP by first conducting a departmental Communication Situational Analysis (CSA)

Description
Activity E: Communication Situational Analysis (CSA) **Sub-activity** • Using brainstorming, mind mapping and SWOT analysis the CSC will conduct a Communication Situational Analysis (CSA) or Communication Needs Assessment (CNA) with a view of developing CIAP/PAP to enhance departmental attractiveness and visibility

Description
Activity F: Validation of the CSC Report **Sub-activity** • Call a stakeholders meeting to disseminate, receive views and validated the Communication Strategy Committee CSA/CNA report

Description
Activity G: CIAP Development **Sub-activity** • CSC was further mandated in the validation meeting to develop the CIAP to respond to the issues raised in the report with a view to enhance departmental attractiveness and visibility

Matrix I: Part I of the CIAP from September, 2011– March, 2012

CIAP Major Findings, Interventions and Achievements

The following is a summary of the key findings and interventions for enhanced Departmental attractiveness and visibility.

A: Attractiveness

With regard to departmental attractiveness, the project found out that the college website was not specific to the departmental attractiveness needs, computer hardware for staff access was inadequate, there was poor communication for job adverts to attract specialized staff in some discipline areas, including those housed in the Department of Social Sciences, there was lack of office space leading to poor access to communication infrastructure and channels such as internet for staff, lack of information among staff in some areas of the various disciplines housed in the department, lack of a departmental e-mail communication group, poor communication of the departmental social welfare and post-graduate activities, poor communication and delays on acquiring teaching materials, handling of examination processing and queries, timetabling (teaching, Institutional Based and examinations and in liaison with admission and lack of coordination during registration of new students).

In realization of these challenges for the department, the project instituted several strategies to mitigate the situation and enhance the departmental attractiveness. Some of the achievements registered due to the project includes setting up of a special departmental committee to handle website design and content, efforts to ensure desktop computers and printers are available and accessible to staff were stepped up by the chairman and bored fruits, communication of job adverts to attract qualified staff with high academic and publication credentials are in place, office allocation for staff to access telephone, intra and internet has been done, induction training for members of staff to appreciate the diversity of disciplines in the department has been completed, a departmental group e-mail (humanitiespuc@yahoogroups.com) was developed and adopted by all members of staff, a departmental welfare committee was established and is functional, a Departmental Graduate Committee (DGC) was established, coordinator for teaching and learning materials was appointed to enhance good communication and access to such materials, coordinator in charge of examination was appointed to take charge of examinations, coordinator timetabling was appointed to oversee this docket, and a departmental Communication Liaison Officer was appointed. Other departments and the university have adopted some of these innovative interventions to enhance their attractiveness.

However, several lessons were learnt during the projects first, that to be successful in ensuring departmental attractiveness, members of staff must be involved from the conception of the idea throughout its planning and implementation. Second, members of staff should be assigned specific responsibilities to ensure success. Third, to have a clear implementation matrix for the various activities that will ensure success of the PAP is critical. Fourth, within the larger college framework, support and understanding from the university administration and motivation to overcome the challenges and see the project through is essential.

B: Visibility

With regard to visibility, the project found out that the college website was not specific to the visibility needs of the department, hence it was not visible to the general public within and without the college, it was also evident that there was lack of a standalone notice board for the department, the office location for the Chairman and staff of the department made physical communication difficult, there was also poor communication of departmental academic activities to foster visibility, there was a dearth of departmental Information, Education and Communication (IEC) materials, it was also observed that there was minimal visibility of the department in the University Newsletter and an obvious limited visibility of the department at the national and international levels.

Following these observations a number of mitigation measures to enhance departmental visibility were put in place within the framework of the PAP. Key achievements in the quest to enhance departmental visibility includes the inclusion of the department in the university website as a standalone component and enhancement of its content, a notice board for the department was mounted, the office of the chairman was moved near the staff for easy communication and interaction, a departmental group mail (humanitiespuc@yahoogroups.com) was designed and adopted, departmental IEC materials such as posters, brochures and fliers were developed, more departmental events are now covered in the University Newsletter. Currently, the university website is undergoing upgrading and the department has been asked to update and upgrade its section, this will go a long way in enhancing visibility nationally and internationally.

Finally, enhanced attractiveness and visibility for the Department of Social Sciences was achieved because of the commitment, focus, passion and enthusiasm that the implementing team had. The involvement of staff and support from the university administration and PAP couches made it easy and enjoyable to implement the CIAP. The goodwill the project received from the top brass university administrators ensured that everything goes according to the matrix. Challenges of workload, finances and time, though threatened to derail the project, they were not hindrances to its registered success. What has remained to be done is to upscale and cascade the project horizontally and vertically for the benefit of other department and the university in general.

Description
Activity H: Validation of the CIAP
Sub-activity
• Call a stakeholders meeting to share the CIAP, receive views and validate CIAP for adoption

Description
Activity I: Approval of the CIAP
Sub-activity
• Meeting with the Dean, School of Humanities and Social Sciences to hand over the CIAP to the department for purposes of approval by the Dean's Committee

Description
Activity J: Approval of CIAP by the Academic Board
Sub-activity
• Tabling of the CIAP for discussion and approval by Chairman of the Deans' Committee in the Academic Board

Description
Activity K: Implementation of CIAP
Sub-activity
• Meetings with stakeholders to plan and promote awareness and ownership in the implementation of the CIAP

Description
Activity L: Reporting on PAP Implementation
Sub-activity
• Attending Part III of the International Deans Course to present PAP and share experiences and challenges

PAP for Continuity and Sustainability

To ensure the successes and best practices of the CIAP are sustainable, it was recommended by the stakeholders that there should be Phase II of the project as shown in matrix II.

Description
Activity M: Up scaling of the CIAP
Sub-activity: Recommendation of stakeholders • Advocacy and lobbying the Senate to formulate a committee that will adapt and cascade the CIAP in view of establishing a Communication and Documentation Centre (CDC) that will serve the college and develop a Communication Strategy/policy with a view to enhance attractiveness and visibility of the college

Matrix II: Phase II of CIAP

Acknowledgements

I wish to thank the German Academic Exchange Service (DAAD), Centre for Higher Education Development (CHE), German Rectors' Conference (HRK), Alexander Von Humboldt Foundation, University of Applied Sciences Osnabrueck and the Free University of Berlin in Germany, University of Addis Ababa in Ethiopia and Kenyatta University in Kenya for sponsoring the International Deans' Course (IDC) Africa. I also wish to acknowledge the unwavering efforts and support of all the facilitators in Part I, II and III of the IDC course. Finally, I thank my fellow participants to the IDC course, members of the Communication Strategy Committee (CSC), Colleagues in the Department of Social Sciences and Pwani University Staff and Management for their invaluable support and contributions, without forgetting the editors of this manuscript. To all of you ***Ahsanteni Sana*** (Thank you very much).

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Towards the Introduction of Electronic Teaching & Learning Methods in the College of Agriculture, University of Ghana

Samuel G.K. Adiku

Abstract

Electronic Learning and Teaching (e-learning) has become a common tool employed by many universities world-wide to improve teaching delivery. It involves the use of electronic-supported technology to improve information processing and delivery. However, there is a limited use of this mode of teaching and learning in the College of Agriculture, University of Ghana. The purpose of this study is to assess the preparedness of the College to migrate from solely paper-based to a more e-based learning and teaching.

The study used structured questionnaires to interview sixty (60) randomly selected undergraduate students, twenty (20) post-graduate students and twenty (20) teaching faculty on the modes of teaching and learning, IT literacy and the use of e-technology for teaching during the 2011/12 academic year. The results indicated that though 40 % of the lecturers and 50 % of students had sufficient IT literacy skills, there was only very little e-based learning activity in the College during the period of the survey. The main IT-teaching method employed by the faculty was PowerPoint slides, and even so, only the basic features were employed. The survey showed that a number of challenges had to be addressed to facilitate the use of e-based teaching and learning methods. These include: (i) reliability of the internet system in terms of speed and capacity, (ii) availability of computer infrastructure in the college, including *WIFI* coverage, (iii) the need for training in e-based for teaching and learning and (iv) the need for a general policy guide for the promotion of e-learning in the College. The results from a limited e-learning pilot con-

ducted during the year, however, showed that there was willingness to embrace e-learning if the challenges could be addressed.

Keywords: e-learning and teaching, IT literacy, web-based teaching.

Introduction

Dramatic increases in student enrolment, increased number of academic programmes coupled with a very slow rate of expansion of physical facilities are some of the major challenges facing the maintenance of teaching and learning quality in the in the College of Agriculture, University of Ghana. Student numbers per class have increased from an average of 25 (in the 1980s) to 200 (2010). Limited availability of reference texts in the University's libraries aggravate the problem, with students having to rely, to a great extent, on lecturers' notes for learning.

Due to large class sizes, the face-to-face methods of teaching, which continues to be the dominant mode of teaching in the College has become ineffective. In many cases, not more than 30 % of students actively interact with the lecturer. More so, the classroom is limited to only one activity, namely, lecturers teach and students take notes. Conceivably, if course notes and other materials were made available earlier, the time in classroom could be used for a range of other learning activities, such as group discussions debates, etc. Whereas it could be argued that printed hand-outs could be made available to students before class, the cost of paper, ink, etc. could be prohibitive. Further, students in remote locations could not be easily reached with hard copies in a timely and cost-effective manner.

It is important to explore additional methods of course delivery in the College, given that technological advances in the last few decades have made it possible to overcome some of the limitations of face-to-face and solely paper-based teaching and learning methods. To date, course delivery via e-technology continues to be insignificant in the College, though the University of Ghana has for some time been making efforts to introduce e-learning. An E-learning Committee, set up in the University since 2009, developed a general policy framework (see Oheneba-Sakyi et al., 2011) but a proposed e-learning pilot to sensitize the university community has not yet materialized.

One issue of importance to the success of e-learning technology is the preparedness of the learning community in the College (students, lecturers, and supporting staff) to embrace e-learning and teaching technology, especially, the web-based systems. This issue, has hitherto, not been researched.

The aim of this project was threefold. First, it sought to explore the modes of teaching and learning in the College of Agriculture, University of Ghana. Second, it sought to evaluate the IT literacy level among the learning community and thirdly, the study assessed the preparedness of the learning community to embrace e-learning (especially web-based) methods in the course delivery system.

Materials and Methods

The College of Agriculture, University of Ghana.

The College of Agriculture, University of Ghana grew out of the Faculty of Agriculture which was established in 1953. Currently it has two Schools (Agriculture and Veterinary) and seven departments (Crops, Soils, Animal, Agricultural Economics and Agri-Business, Agricultural Extension, and Family & Consumer Sciences) as well as three Research Centres. The College runs both undergraduate and post-graduate programmes in all disciplines. The undergraduate programmes include a three-year Diploma and a four-year Degree. Post-graduate programmes included the Master of Agriculture (M.Ag.), Master of Philosophy and Ph.D. A total of about 700 students are enrolled in the College during the study period with about 20 % at the post-graduate level. The academic staff strength was about 77.

Project approach

This project was designed to achieve two main activities (Table 1), (i) needs assessment, and (ii) piloting e-teaching and learning in some selected programs.

Activity A: Needs Assessment
A1. Identify stakeholders A2. Analysis of the current teaching and learning methods A3. Stakeholder discussions on e-learning leading to the development of a mental map, and A4. Formal interviews and administration of questionnaires on teaching and learning.
Milestone A: Determination of the dominant mode of teaching and preparedness to adopt e-learning and teaching alternatives

Activity B: Piloting an e-learning and teaching for selected programmes
B1. Discussion of the results of Activity A with stakeholders (Lecturers and Students) B2. Identification of the types of e-learning that could be implemented in the short term and B3. Discussion of the steps needed to popularize e-learning in the College in the long-term.
Milestone B: Determine the success chance of e-learning in the College.

Table 1: Project Activities

Survey

Two survey approaches were used to assess the teaching modes and the lack of e-learning in the College (needs assessment). First, a focus group discussion was held in late July 2011 for a cross-section of students and lecturers and the outcome of this interaction was used to develop a mind map (Fig. 1) that documented the challenges and opportunities for introducing e-learning methods.

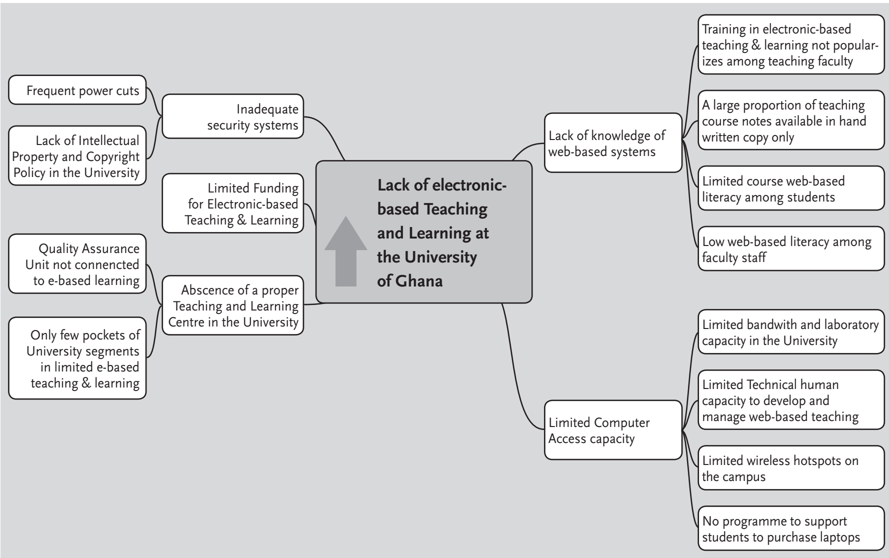

Figure 1: Mind map on the lack of e-based teaching and learning.

Second, formal survey instruments (structured questionnaires) were administered to sixty (60) undergraduate students from the second to fourth years and twenty (20) post-graduate students. Additionally, twenty (20) lecturers and two

(2) system analysts in the College were also interviewed. The survey questions focused mainly on:

- Current teaching methods,
- Access to computer laboratory,
- Computer literacy,
- Knowledge of downloading and uploading files from the internet,
- Laptop ownership, and
- Preparedness to embrace e-learning methods.

Summary and descriptive statistical methods were used to analyze the data.

Results and Discussion

Activity A

(i) Teaching modes
Both students and lecturers agreed that the dominant teaching mode was by face-face. Lecture notes were delivered via a range of methods including dictation by lecturers, (5 %), PowerPoint slides (38 %), and printed handouts (> 50 %). Most students and lecturers appeared to be somewhat comfortable with these modes of teaching.

(ii) Computer and IT Literacy
Computer literacy skills of both students and lecturers were satisfactory (Figs. 2a & b) but this was largely limited to word processing. Literacy in computing using Excel was average (33 %) whereas the skills for database management (e.g. ACCESS) and project planning (MSPROJECT) were negligible. On the other hand, most students (87.5 %) were internet literate and could upload and download items and other information from websites.

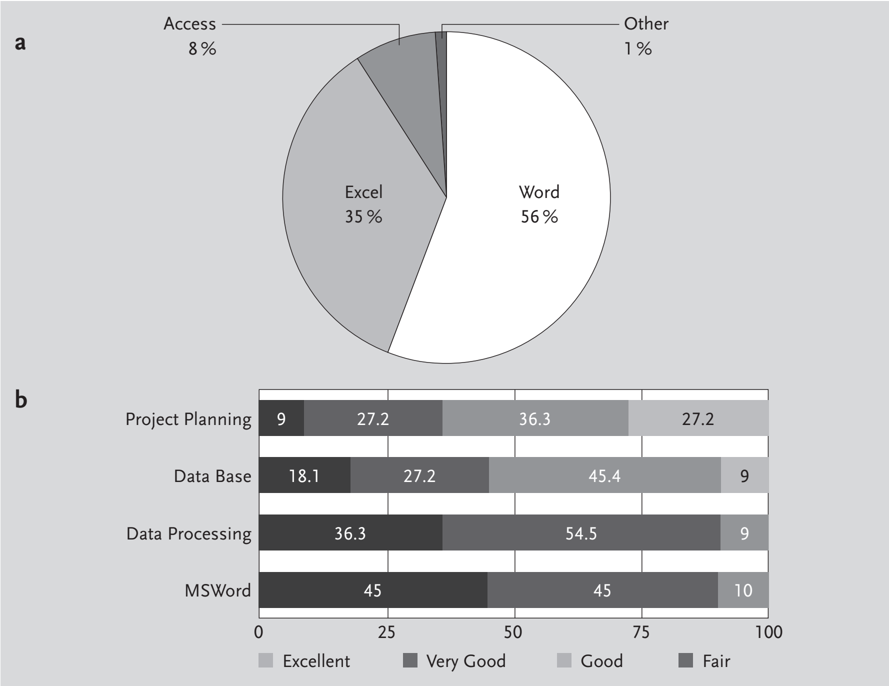

Figure 2: Computer literacy among (a) students and (b) lecturers

(iii) Challenges to embracing e-learning and teaching
A number of challenges were identified with regard to the introduction of e-learning and teaching into the College. From the students' point of view, limited access to computers and the internet (including *Wi-Fi* hotspots) in the College were considered as major handicaps (Fig. 3a & b). Only 43.5 % of the students could easily access these facilities in the College's computer laboratory. Ownership of personal laptops among students was low (5 %). About 92.8 % of students expressed the desire to participate in an "own a laptop" scheme, if the College would facilitate a hire-purchase agreement with computer companies. Most young lecturers owned personal computers and are linked to the University's Local Area Network (LAN). Access to internet was thus not a major issue.

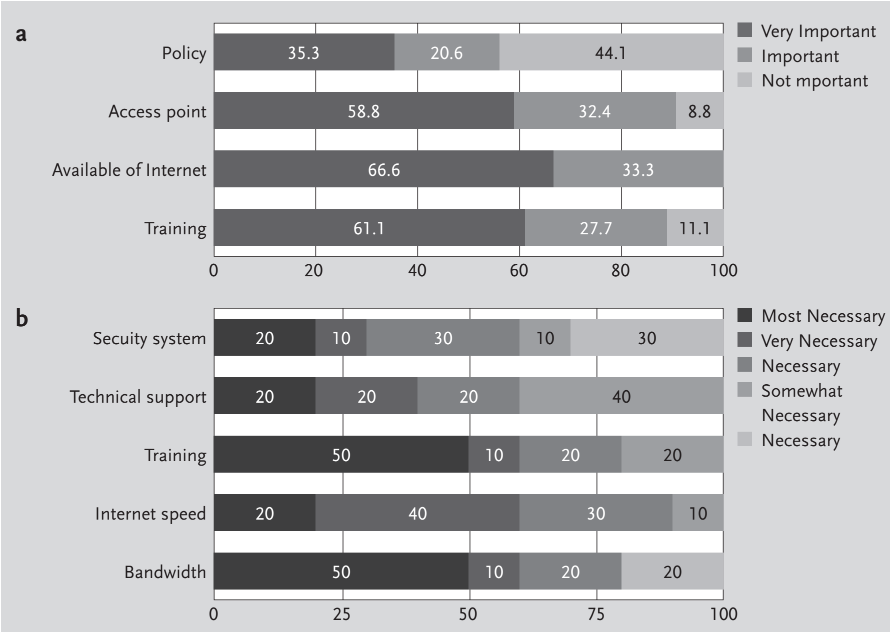

Figure 3: Challenges regarding migration to web-based learning by (a) students and (b) lecturers.

From the lecturers' viewpoint the major challenges to e-learning and teaching were bandwidth and training (Fig. 3b). Indeed, the results showed that only 5 % of lecturers interviewed had previously participated in an on-line learning and there is currently no online teaching going on in the College. It was quite clear that the lack of knowledge of e-learning was the most limiting factor. Hence a training workshop on e-learning and sensitization of the learning community was of utmost importance.

Interactions with the system analysts in the College indicated that the entire University of Ghana operates on a bandwidth of 155 Mb/s, and even though this is sufficient, there is no specific allocation of the bandwidth to any Department, College or institution. Thus, some departments may use up more, thereby causing an un-even share of the bandwidth. But regardless of this, the analysts were of the view that the bandwidth capacity was still sufficient to host most of the course websites to post course lecture notes and other reading materials, quizzes, and enable discussion chats and tutorials for students and to download completed student assignments. Furthermore, there was a drive to extend *Wi-Fi* to all student halls of residence and departments to improve internet access. It is, however, important to note that if the whole University of Ghana (with 38000 students) migrates to e-learning, bandwidth challenges may become real.

(iv) Preparedness to embrace e-learning
The survey results indicated that about 60 % of lecturers claim to be ready or partly ready to embrace e-learning technology (Fig. 4). In the case of students, there was no experience of e-learning. However, given the fairly high IT literacy among students, there is some likelihood that with the appropriate sensitization and training, students would be willing to embrace e-learning.

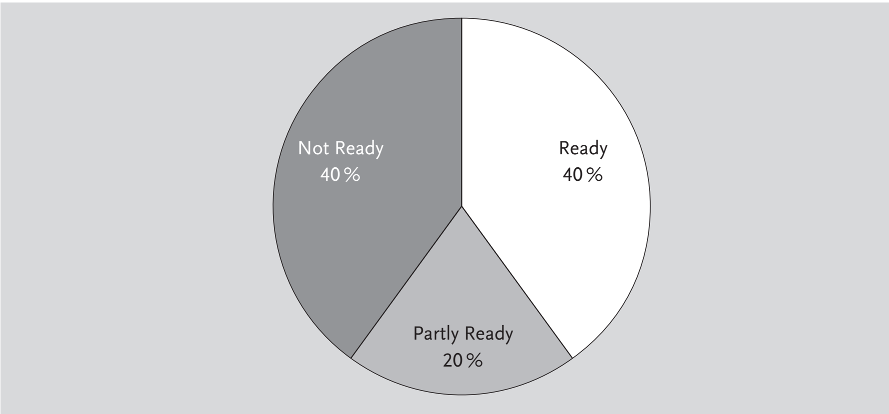

Figure 4: Readiness of lecturers to embrace e-learning

Activity B (E-learning pilot)

The discussions of the survey results with the interviewees indicated that the findings reflected their responses. The desire was expressed to run a pilot e-learning in the College. However, in the absence of a suitable platform, the pilot was limited to only two postgraduate soil science courses: SOIL 608 (Soil & Water Conservation) and SOIL 616 (Soils, Atmosphere and Global Climate Change). Both of these courses were taught by the author. For these two courses, a yahoo-group account was opened, with both students and the lecturer having the login and password. Lecture notes and assignments were posted to this email before actual lectures. Lecture hours focused on discussions and problem solving. The email site also provided an opportunity for on-line discussions after lectures.

Though the pilot was limited to only sixteen (16) post graduate students, there was a general satisfaction with the hybrid e-based and face-to-face mode of teaching. It was concluded that for small class sizes, simple yahoo-groups accounts could adequately facilitate teaching. For larger class sizes, a more appropriate platform may be necessary.

Future work

Observations from the survey indicated that some major steps and efforts are necessary to facilitate the migration from the solely paper-based face-to-face to more e-based teaching methods.

First, lecture notes need be digitized and other digital teaching methods including audio-visuals, *i-clickers*, videos, PowerPoint, etc. be demonstrated to lecturers.

Second, the development and dissemination of a general college-based policy on e-based teaching and learning is essential to guide against infringements of intellectual property rights, plagiarism, etc.

Third, further training of lecturers and students in computer technology is essential. It is proposed that courses in MSWORD, EXCEL, ACCESS and MSPROJECT be introduced into the curriculum. For students, these courses could be spread over the 4 years of undergraduate study. Appropriate credits should be assigned to these courses. In the case of lecturers, training courses could be available in the holiday periods. Lecturers must show evidence in form of participation certificates.

Fourth, a training scheme for e-learning has to be developed for students and lecturers. The tutorials must themselves be on-line and with an initial face-to-face introductory workshop. Tutorial upgrades should be available on-line from time to time.

Finally, technology support should be intensified. In particular, the "own a laptop" scheme for students has to be intensified. Some investment to improve college computer and web infrastructure is necessary.

Conclusion

This study has surveyed the status of the modes of teaching and learning in the College of Agriculture as well as the preparedness of the College to migrate from paper-based to a more e-based learning technology. It could be concluded that despite the challenges, there is a general willingness to migrate, provided the challenges are addressed. An intensification of computer technology course in the College of Agriculture is necessary as well as a general policy framework to guide the migration process.

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Strategic management in teaching and learning

Bassey E. Antia & Mary-Jane Antia

Abstract

Since the 1980s when the New Public Management introduced private sector rationalities into public services, higher education institutions have had to rely more than ever before on strategic management. In many environments where it is now considered indispensable to apply strategic management to, say, research, it is regrettable that teaching and learning (TL) have not been seen as arenas for managing by the same kinds of explicit objectives. The consequences of this neglect have arguably been felt at societal, institutional and individual levels. In this article, Biggs' aligned curriculum into which graduate attributes have been embedded is described as a strategic response to a subset of challenges confronting higher education institutions. The article grounds the aligned curriculum construct in strategic management, and contests claims regarding the use of management instruments in TL. It then pedagogically presents facets of an aligned curriculum, and describes a software tool for developing an aligned curriculum.

Keywords: strategy; Biggs' SOLO taxonomy; Bloom's revised taxonomy; aligned curriculum; graduate attributes; curriculum alignment software

1 Background

Not unlike other sectors, higher education (HE) is facing challenges that reflect the times. Indeed, a range of developments in society as well as goals of public authorities have produced several, sometimes interrelated, consequences in the HE sector. Leaner purses, the need to curb wastage and to maximize value on available finances have all led to funding cuts and new, market-inspired funding models. The resort by operators to complementary sources of funding or the case they now regularly have to make for additional public or proprietor funding has, in part, created new structures and forms of accountability to evolving stakeholders. The need to create greater public value, stimulate competition and respond to the tertiary education needs of different demographic profiles has encouraged rankings and differentiation in the sector. Globalization has made internationalization of all kinds possible and increasingly inevitable. The need for knowledge workers to drive and leverage the new knowledge economy for national strategic advantage as well as the need to democratise access to the privileges associated with tertiary education have provided the impetus for massification.

In several HE environments, the implications of strategic management (see section 2) as a tool for responding to the requirements of the changed operating environments have been more or less drawn out in such areas of governance as human resources (Gunnarsson 2012; Dubosc and Kelo 2012), financial management (Sanyal and Martin 1998), research (Reichert 2006; Gunnarsson 2012), and day-to-day or overall institutional management (Tarvenier 2005). Regrettably, in many of these same HE environments, teaching and learning (TL) have not been seen as arenas for managing by the same kinds of detailed and explicit objectives. Consider the fortunes of learning outcomes, that is, clear statements of what students should be able to do under given conditions at the end of a course (see section 4.3). In the UK, an audit of the adoption of learning outcomes in HE institutions found that "not all staff embraced the learning outcomes approach with equal enthusiasm." (Quality Assurance Agency for Higher Education 2007, 6). On one view, this finding is a gross understatement. In a *Times Higher Education* article, Furedi goes as far as claiming that learning outcomes have a corrosive influence on education (Furedi 2012).

Also using the metaphor of corrosion, Naidoo and Jamieson (2005) criticize the introduction of private sector ethos into universities, and especially into the TL nexus. They catalogue the effects on TL of neoliberal consumerist mechanisms (into which the specification of learning outcomes presumably falls). They note that study programs are now carved up into small bits (modularization) that do not allow for the kinds of sustained exposure required for rounded initiation or apprenticeship into disciplinary knowledge. There is also an increasing tendency in the curriculum towards applied knowledge that is packaged for the workplace, but this is done (poorly) at the expense of in-depth theoretical knowledge. Like Liessmann (2006), they also find that what counts as learning are bits of non-contextualized and incoherent information, fit perhaps for television quiz programs (e.g. Who wants to be a millionaire?), but in no way constitutive of knowledge. Pedagogic relations are distorted, with students adopting a rights or entitlement-to-pass mentality which does not encourage them to own the process of their learning. Basic learning is promoted, rather than high quality learning which requires such personal attributes as commitment and passion. Inequality is exacerbated, as graduates from institutions that have buckled under consumerist pressures tend to end up with sub-graduate jobs, unlike their counterparts who graduate from elite institutions (that are more able to resist massification), and get the non-routinized, plum knowledge jobs in industry.

While some of the criticisms of market-driven strategic governance of TL are quite accurate, they nonetheless beg the question as to how institutions that do not have the luxury of an idyllic, ivory tower operating environment (shielded largely from the political economy of processes in the wider society) are to operate in order to fulfil their mandate in the area of TL. On the other hand, some other criticisms flow from contestable understandings of strategy, and possibly from different readings of the evidence in educational outcomes research. But on another level, regretting the pre-managerialist era university also masks the problems of that era, and makes a number of contestable assumptions: e.g. that lecturers in that golden age always knew what they were doing, and that motivated and passionate students necessarily appreciated the orthodoxy of disciplinary initiation prevailing in that era; it ignores the many who dropped out of unstructured, sometimes mystery-laden doctoral and other programs. It also presupposes that universities that have not buckled under pressures of massification and the like have themselves not incorporated managerial instruments into their processes. Finally, there is also a sense in which despondency over a lost era masks the opportunities associated with instruments of a new dispensation. As Gijbels et al. (2005) suggest, with robots and other devices taking over more and more routinized jobs, the challenge higher education has is how to define higher order and complex problem-solving skills. Gijbels and colleagues underscore the importance of a structured knowledge base for imparting these skills.

Against this backdrop, this article makes a case for opening up TL to strategic management thinking and, paradoxically, to research on educational outcomes, both of which can be drawn upon to support the transparency (and the attainment) of goals typically ascribed to TL. The article seeks to frame TL within the discourse of strategic management, and (consistent with the subject matter) to do so in a manner that is significantly pedagogic. The specific objectives are presented below as intended learning outcomes for the reader. The reader should be able to:

(1) assess the effects that choices made in curriculum delivery can have on learners, teachers, institutions, educational systems, and society;
(2) demonstrate an understanding of how curriculum alignment exemplifies strategic management;
(3) identify, define and discuss relevant concepts of strategy and educational outcomes research;
(4) develop curriculum alignment as a strategic management instrument in TL; and
(5) develop and use arguments for engaging in advocacy on behalf of curriculum alignment as an instance of strategic management applied to TL.

We first provide an outline of strategy. Secondly, we present our conjecture on the consequences associated with the limited uptake of strategic management thinking in TL. Thirdly, TL is presented as an arena of choice of goals that justifies engagement with strategic management. A fourth section presents Biggs' curriculum alignment as a strategic management tool in TL. In a fifth and final section, a software tool for creating aligned curricula is described.

2 What is strategic management?

Mintzberg, Ahlstrand and Lampel (2009, 9) refer to the commonplace definition of strategy as plans to achieve outcomes which are themselves consistent with an organization's goals. Pearce and Robinson (2007, 3) view strategic management as decisions and actions such as planning, directing, organizing and controlling that are applied to formulating and implementing an organization's strategy. One account of the strategic management process can be seen in figure 1.

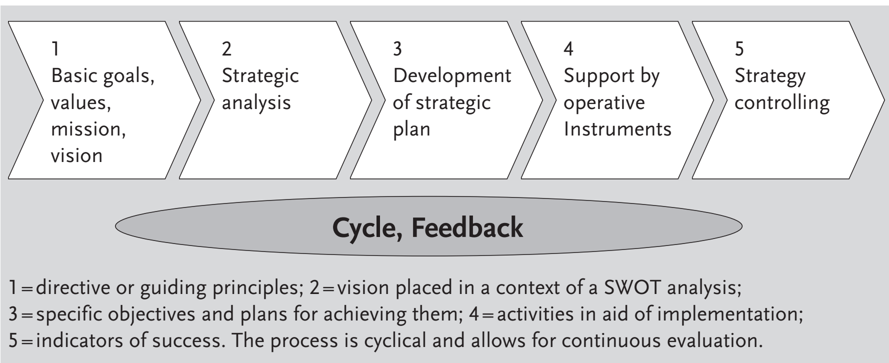

Figure 1: A view of the strategic management process (Source: Ziegele 2007)

Mintzberg, Ahlstrand and Lampel (2009) point out the complexities associated with a shorthand view of what constitutes strategy. Each of four different themes in a possible conceptualization of strategy (represented below in italics) is shown to have both advantages and disadvantages. While the advantage of strategy being a *means of setting direction* is that there is cohesiveness in an organization's actions, this conceptualization can blind to pitfalls, quite apart from engendering perilous dogmatism. The advantage of strategy as the *focusing of effort* is coordination to prevent centrifugal tendencies; the drawback is that it leads to groupthink that stifles creativity. Although the advantage of strategy being a *means of defining* an organization is that it provides the organization with a clear identity, the disadvantage is that strategy developers may misunderstand the very nature of identity (as complex, non-essentialist, and as being constantly (re)constructed). In facilitating the confident choice of a particular path from a welter of choices, strategy as *providing consistency* may inadvertently sacrifice creativity and innovation on the altar of logical coherence (Mintzberg, Ahlstrand and Lampel 2009, 16–18).

3 Why a strategic management orientation in teaching and learning?

Quite simply, the answer is to achieve good and effective teaching and learning. Good teaching is motivated by, among others, the concern to broaden the base of learners using "the high level cognitive processes that the more academic students use spontaneously." (Biggs 2003, 74). Strategic management can be employed in response to a number of consequences of certain TL styles. It is therefore not a tool for converting universities, for instance, from sites of educating for knowledge to sites of training for occupations. In environments where, for ideological or other reasons, there has been a limited uptake of strategic management in TL, several classes of effects can be hypothesized.

3.1 From the perspective of students

The effects might include the following:

(1) Given a mass of material to which their attention has been drawn, students may sometimes be uncertain as to what they need to learn and how or from what perspectives.

(2) Students may underperform, not because they have not learnt, but because their learning was not aligned to the (unstated) expectations of their teachers.

(3) Students' metacognitive knowledge of their learning remains underdeveloped, making it difficult for them to audit their learning (i.e., to be aware of: what they know, how they know it, what they should know, what they do not know; to be able to connect what they know to broader social issues).

3.2 From the standpoint of lecturers

Evidence of an insufficiently developed goal context for teaching and learning might include:

(1) The limited usefulness and at times the utterly unusable nature of marking schemes. Not infrequently, the marking scheme paradoxically allows students to have good passes even when the lecturer is convinced that such students have not demonstrated expected knowledge.
(2) The non-diversification of teaching and learning activities, so as to afford students with different talents the opportunity of finding a modality of learning and self-expression with which they are most comfortable, and to develop, as a result, their self-esteem as learners.
(3) Frustration that students have not learnt, or not learnt what and how the lecturer had expected them to learn.
(4) Frustration that because of large class sizes detailed individual feedback can no longer be given to students, thus preventing assessment practices from being opportunities for teaching and learning.

3.3 From the perspective of institutions or national educational systems

The following are arguably some consequences:

(1) The observation that students or graduates whose performances are adjudged weak or mediocre in one environment are found to excel in other institutions or HE environments that have different TL philosophies.
(2) Institutions are scoring high marks in accreditation processes for the quality of their study programs at a time when, paradoxically, industry and professional bodies have never been more distraught over the quality of graduates attempting to enter the workforce, and the market insolvency of graduates is at an all-time high.
(3) The image problem of a higher education system, such as when cohorts (1972 – 1996) of Australian and US recipients of the (German) Humboldt Foundation Fellowships independently report perceiving (at the time) the level of student teaching in Germany being "considerably worse" than in their respective countries (Jöns 2005, 16).

3.4 In adversarial situations

Academic staff unions making a case for increased funding are sometimes unable to elicit or sustain the sympathy of the public because the rhetoric of the case being made fails to resonate with the public. As this chapter progresses, it should be obvious why funding cuts might make lecturers in certain disciplines focus on low level cognitive competencies, unwittingly justifying in the process the uncharitable view that universities are becoming “higher institutions of lower learning.” (Antia 2009, 62).

4 Teaching and learning involve choice and are amenable to strategic management

The organization and implementation of TL evoke the classical definition of strategy. A teacher sets up certain plans (lectures, tutorials, excursions, assignments, marking schemes) to bring about certain outcomes in learners (e.g. ability to define, use, critique, or create units of knowledge) that are consistent with certain goals (e.g. institutional profile, expectations of the discipline and stakeholder groups such as professional bodies and the community). The following hypothetical scenario and the subsequent elaboration underscore this analogy.

In an introductory first-year economics module which they have signed up for, students’ only insight into the nature of the module consists of a four-line overview of the course contents, a list of readings and a list of weekly topics. One such topic is ‘factors of production’. The lecturer plans to mediate the relevant content essentially through prescribed readings and a one-way lecture in which several factors of production are mentioned and described.

Now, at the end of a two-hour lecture, the lecturer refers students to a list with readings, each of which broaches the topic from a range of perspectives. Also, for the 5-minute pre-lecture revision for the following class, students have been asked to come with examples of how factors of production have been exemplified in the prescribed readings. Most students focus on what they guess is the perspective of the teacher: mention and describe! In a class test some three weeks later, the relevant question posed by the lecturer is: Mention three factors of production and describe each.

However, in the final examination, the compulsory question 1 has three parts as shown in textbox 1.

a. List five factors of production and describe each one.
b. Read the attached case description of how company X folded up, and then use this case to reflect on the importance of attending to factors of production in the development of a business plan.
c. In the context of the new knowledge economy, critique the traditional account of primary factors of production.

Textbox 1: Sample examination question

Only a handful of stellar students do well on all questions. Most students do well on question 1a, but the performance on questions 1b and 1c is worrying. While many students fail, there are others who somehow pick up enough marks to have above average passes even though the lecturer is convinced that the intended learning outcomes (however vaguely imagined) have not been achieved.

This example calls attention to the need in TL for strategy as setting direction, focusing of effort and providing consistency. But before analyzing this example any further, let us briefly examine some relevant theory.

1. Remember: mere retrieval of information from memory in substantially the same manner as it had been encountered.
2. Understand: processing the meaning of information.
3. Apply: using information for a purpose.
4. Analyze: determining the constituent parts of a whole and how they hang together.
5. Evaluate: offer a view on knowledge/information.
6. Create: forming something new, e.g. by putting together existing items.

Textbox 2: Cognitive competencies in Bloom's revised taxonomy (Krathwohl 2002)

On the other hand, in Biggs' Structure of the Learning Outcomes (SOLO) taxonomy, there are several levels of understanding. Leaving out the prestructural level where no learning takes place, each subsequent level builds on or extends the preceding one. See textbox 3 and figure 2.

0. Prestructural: no learning has taken place; point missed.
1. Unistructural: memorize, recognize and identify facts, terminology; only one aspect of a complex issue is learnt.
2. Multistructural: exemplifying; knowledge-telling or recounting a wealth of facts which, though interesting and relevant, may not be well structured.
3. Relational: understanding has been achieved as evidenced by the emergence of a concept for integrating/connecting a welter of facts, or by the ability to apply knowledge to problems or data.
4. Extended Abstract: understanding that goes beyond facts presented to infer new knowledge; critiquing existing knowledge.

Textbox 3: Levels of understanding in Biggs' SOLO taxonomy (Biggs 2003, 49)

Figure 2: presents Biggs' SOLO taxonomy with a hierarchy of (sample) verbs that suggest various levels of understanding.

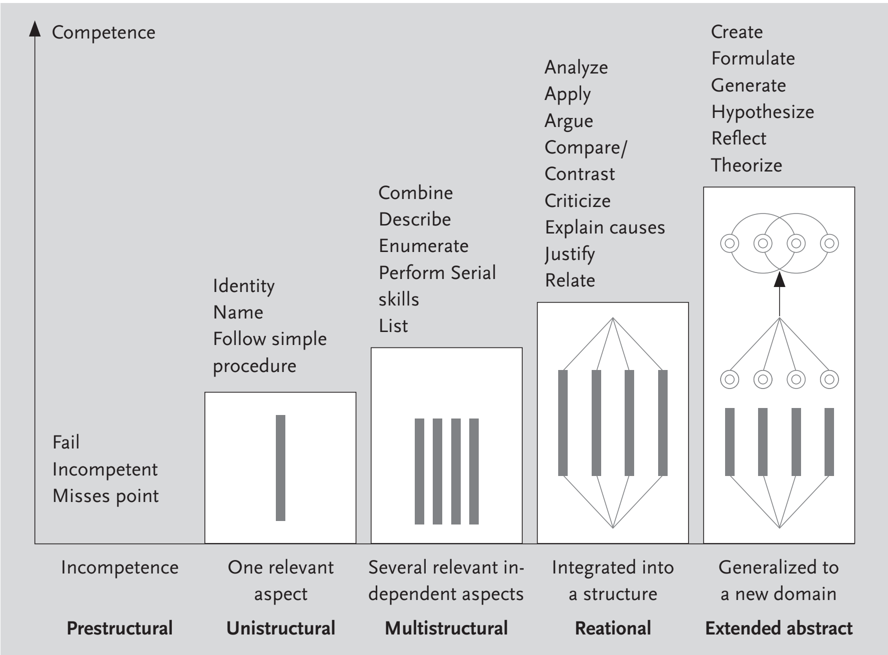

Figure 2: Biggs' SOLO taxonomy with a hierarchy of verbs (Biggs 2003, 48; 2002, 5)

So-called deep learning is associated with the relational and extended abstract levels, and would typically characterize the learning strategy of a minority of students. Surface learning, associated with the unistructural and multistructural levels, tends to be the hallmark of the majority of students.

The picture which the above theoretical description has sought to paint is one of choices regarding what teachers wish for learners to achieve. Returning to the factors of production example, the lecturer failed to trap students in a web of intended learning, in part because s/he did not explicitly state what outcome was expected from engagement with this topic. Were students to focus on the lower level competencies of remembering and understanding, or were they also expected to analyze and evaluate? These competencies require different learning activities and attentional resources. There were no plans in place to get the surface learners to behave like the deep learners.

5 Aligned curriculum with embedded graduate attributes as a strategic management tool

Work by Biggs (e.g. Biggs 1999, 2002, 2003) has been central to the emergence of both the process and product of constructively aligning the curriculum. Consistent with the notion of strategy as providing consistency, constructive alignment (into which graduate attributes have been embedded) seeks to achieve logical coherence among institutional/stakeholder expectations, learning outcomes, teaching and learning activities, assessment tasks, and the grades finally awarded. In other words, it seeks *logical coherence* in answers to the following questions:

- What does the institution or society expect of graduates?
- What should students be able to do at the end of the module?
- What teaching and learning activities should be used?
- What assessment tasks should be proposed?
- How are marks assigned to assessment tasks?

Figure 3 suggests how graduate attributes together with curriculum alignment map onto the concept of strategy. The curved arrows indicate how a range of activities are clearly made supportive of learning outcomes which are, in turn, supportive of graduate/program attributes.

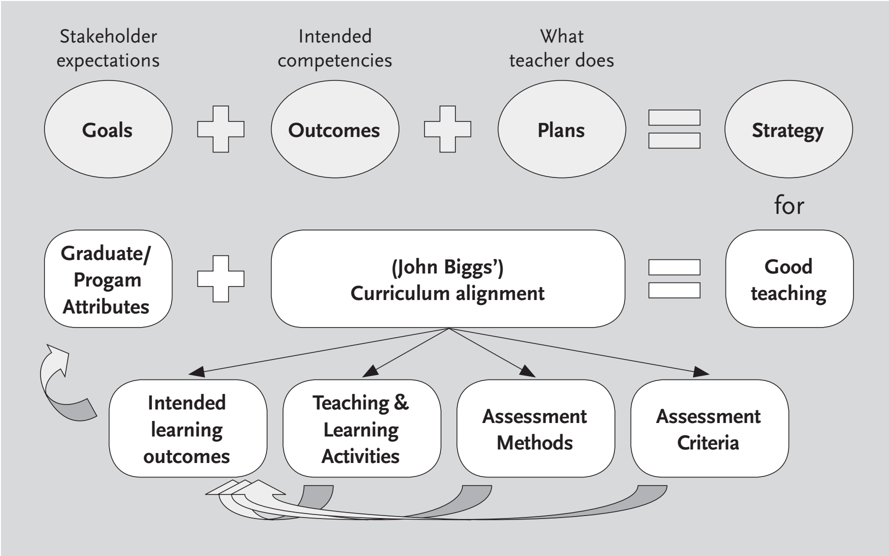

Figure 3: Graduate attributes and curriculum alignment as strategy

In the sections that follow, the components of an aligned curriculum (with embedded graduate attributes) are described.

5.1 Graduate attributes

In our three-component definition of strategy, graduate attributes fall under goals. Attributes are a branding and an agenda-setting instrument for TL (see examples in figures 6 and 7). They constitute the mission statement of a higher education institution as it relates to its graduates. The development of these attributes would be the first phase of the strategic management process in figure 1. Not unlike corporate mission statements, these attributes can foreground quality, self-concept, geography, technology, public image (social commitments), concern for survival, philosophy (attitudes, dispositions, ethics), and so on (Pearce and Robinson 2007, 25). Because graduate attributes provide a goal-context for TL, the opportunity for creating them is one for engaging with, and taking on board a host of, stakeholder concerns, in order to deliver a curriculum that responds in some measure to defined stakeholder expectations. An institution that has internationalization in its vision, but does not attend to how this aspiration is to be operationalized in its curriculum, is unlikely to produce students who are able to define themselves in terms of this attribute. Many institutions do not as yet have graduate attributes.

5.2 Learning outcomes

Learning outcomes obviously fall under outcomes in the three-component definition of strategy. While graduate attributes are more externally oriented, learning outcomes are oriented internally towards the specifics of the course. They are statements that specify what learners are expected to do with the content (Kennedy 2008, 388–389). Even the obvious answer, *well, the content is to be known*, has to be somehow demonstrated by doing something. The emphasis is on what the student does. Examples of the kinds of things that can be done with the content might be to:

- define the concepts of X relevant to Y and demonstrate knowledge of how these concepts hang together;
- interpret X-data for Y purposes;
- explain how X works to bring about Y;
- predict X patterns from Y data under Z conditions; and
- use the X-system of Y to produce Z.

In contrast, a course description presents content as an abstraction that does not focus on the learner or on the use to which such content is to be put.

The number of outcomes is determined only by what are considered to be priority competencies, and it is not uncommon to have between 3 – 8 outcomes, covering:

- content issues: demonstrating knowledge of basic concepts, terminology, facts; describing and explaining (logical relations of) causality, co-occurrence, and so on; applying knowledge to solve problems; breaking down or analyzing situations; critiquing knowledge, creating or developing new knowledge;
- formal issues: using language correctly and/or like a subject-field expert, organization or structuring of ideas, communication, documenting sources correctly, and so on.

Much has been said about verbs (e.g. define, explain, critique) in the wording of learning outcomes, but quite a bit of this is controversial (Jones et al. 2009, 2–3). As with the categorization of questions into different cognitive levels, the point has been made that “in some instances the verb does not provide the full picture” and that it is important to consider other aspects of the statement (Jones et al. 2009, 3). Although sensitivity and specificity rates will not always be optimal, verbs can nevertheless communicate at least four important facts when chosen in a reflective and informed manner:

- the ‘performances of understanding’ the learner is expected to enact: remember, understand, apply, analyze, evaluate, create; unistructural, multistructural, relational or extended abstract;

- the cognitive competence level (from simple to complex) at which the performance is to be enacted;
- the distribution or spread of cognitive competencies expressed in the outcomes;
- the knowledge type in respect of which a given performance of understanding is to be enacted. Examples in Bloom's revised taxonomy would be: factual knowledge (the basic concepts/facts of the discipline, e.g. concepts), conceptual knowledge (models, theories and other integrative frameworks for the basic facts), procedural knowledge (methods, techniques).

It should be perceived as a problem if outcomes, especially in advanced-level modules, were skewed in the direction of the lower cognitive competencies. This would make for a higher institution of lower learning! At this point, the reader may wish to analyze the objectives of this chapter from the perspective of spread.

Sections 4.3 – 4.5 that follow fall under plans in our three-component definition of strategy.

5.3 Teaching and learning activities

The factors of production example showed that there can be consequences when there is a disconnect between (stated or implied) learning outcomes and teaching/ learning (TL) activities and assessment. Very little is efficiently achieved when an intention to inculcate in students competencies of case logic, analysis and evaluation is not supported by pedagogic activities (e.g. case analyses) that support the development of these competencies. Obviously, because TL activities come with different affordances, it is important to carefully consider which TL activities are most supportive of specific learning outcomes. For instance, with respect to an outcome on defining basic concepts, a range of terminology-centred activities would be especially appropriate.

Indeed, the list of possible TL activities can be quite long and would include: the expository and essentially one-way lecture; tutorials that complement lectures; text commentaries; summaries; interviews; development of glossaries; error-spotting; interactive presentation using a range of modalities, including questioning students, concept maps; seminars; laboratory work and a range of other practical activities; excursions; reflective journaling (that is, keeping diaries of major learning milestones or critical incidents and commenting on these); role-playing; blogging; simulated panel discussions or debates; computer and other kinds of simulation and modelling; letter to the editor; annotated bibliographies; group work of various kinds for a variety of tasks; and so on. Following Biggs (2003, 81–2), TL activities may be classified as teacher-directed, peer-directed and self-directed.

Again, the reader is invited to reflect on what TL activities might be appropriate for each of the learning outcomes of this chapter – if the contents were to be the subject of teaching.

5.4 Assessment tasks

It might seem like a trivialization of education to say that because students are always oriented to assessment tasks, therefore learning should be focused on the assessment. If assessment is understood as directed at desirable competencies, then endorsement of assessment-driven learning should be less contentious. It would be quite consistent with the view of strategy as setting direction and focusing effort. As noted by several scholars (e.g. Biggs 2003, 140; Jones et al. 2009, 1), students inevitably learn for assessment, and this practice can easily be leveraged to ensure that the assessment is focused on what the teacher wants the students to learn. Without prejudice to the value of other possible tasks, it would be remiss to conclude a course that has driving machinery or lacing shoes as intended learning outcome without the actual driving or tying of laces ever having been assessed.

There is an expectation that "things valued enough to be stated as course learning outcomes will be assessed." (Knight 2001, 3). There is a huge variety of assessment formats, with one account (Knight 2001) identifying as many as fifty. Not surprisingly, in some cases, assessment formats are identical to TL activities. The list of assessment techniques includes: multiple choice tests, take-home assignments, open book exams, take-home exams, summaries, short exam questions, simulations, blogging, exhibitions, role-playing, orals or vivas, projects (individual or group), reflective journals, self-assessment, peer assessment, presentations, portfolio (in which learner makes claims of what has been learnt by including important work done in the course, e.g. concept maps, reflective journals or/and sample essays, then comments on why and how they represent achieved learning – especially given the intended outcomes), and so on (Knight 2001, Biggs 2003).

The reader may wish to again reflect on the task given at the beginning of this section: the content, wording and format of possible assessment tasks intended to support the attainment of each of this chapter's outcomes in a variety of class(-size) situations.

5.5 Grading or assessment criteria

For the actual grading of assessment tasks to respond to strategic imperatives, it needs careful thinking through. Assessment criteria that do not support priority learning outcomes make the attainment of such outcomes a matter of chance. In a module where the most valued outcomes or performances of understanding are of the relational and extended abstract type, something would be wrong if answer scripts in which the performance had been excellent on less valued outcomes but not on the priority outcomes somehow earned substantially more than 50% of the total marks.

This would happen with assessment that is quantitative and outside of a strategic goal context. As Biggs (2003) suggests, obtaining more than a bare pass in such situations provides no incentive for students to strive to achieve prioritized learning outcomes. In a question paper with different assessment tasks, from labelling and defining to evaluating and creating, the premium set in the corresponding course on higher order cognitive skills could mean assigning between 60% - 70% of the total marks to a demonstration of these higher order skills.

A distinction is commonly made between norm-referenced assessment and criterion-referenced assessment (Knight 2001, 17–20; Biggs 2003, 143–145). Norm-referencing is based on expectations of an ideal distribution of performance, for example, the number of students that should get specific grades (e.g. A, B, C, and so on). It is grading on the curve, and it compares students to each other. On the other hand, criterion-based assessment, especially in the context of an aligned curriculum, provides the framework for interpreting learning outcomes in the grading of specific assessment tasks. It essentially answers the question: bearing in mind the backwash I expected to learning activities and to learning outcomes while proposing a task, what should I be grading for the strategic decision around the choice of the task to be well served?

Criterion-referenced assessment works through a series of benchmark statements that express prototypical qualities of performance connected to different grades (e.g. A, B, C). In this way, assessment is done on the basis of goodness of fit. In this case, it is a match between answer and pre-set benchmark statements. The obvious prototypical framework is useful because it acknowledges margins and the inevitable fuzziness of categorization decisions – quite consistent with the caveat that strategy need not be specified in the rigid terms of necessary and sufficient conditions.

Criteria	Excellent	Good	Weak
1. Data issues: data is from source W, collected in X manner, in Y quantity and of Z quality. (5 marks).	Data samples of over Y quantity collected from an appropriate source in a transparent and ethical manner, using a device that allows for quality Z. Exceeds expectations. (4–5 out of 5).	Data samples of X–Y quantity collected from an acceptable source in a manner that raises some concerns about any or several of the following: transparency, ethics, quality. (3 out 5).	Data sample size below X quantity, collected from a relatively inappropriate source, and raises serious concerns about several of the following: transparency, ethics, quality. (2 and below out of 5).
2. Transcription/processing: collected data is presented in a conventional manner (backed by appropriate reference), and it reveals features of X, distinguishing it from Y. (10 marks).	Transcription reveals more than 5 features of X, and it follows the convention in a cited authoritative source. Exceeds expectations. (8–10 out of 10).	Transcription reveals 3-5 features of X, and it generally follows established convention (which may or may not have a citation). (5–7 out of 10).	Transcription reveals below 3 features of X, and there are concerns conventions followed. (Below 5 out of 10).
3. Theory: What named or unnamed theories are expected? What named or unnamed concepts are required? (10 marks).	Relevant theory, concepts, models chosen. Evidence of excellent understanding (in definitions, elaborations, applications). Exceeds expectation. (8–10 out of 10).	Theory, models, concepts chosen largely relevant for the data. Generally well understood, though there are occasional doubts. (5–7 out of 10).	Theory, models, concepts chosen not particularly suited to the data. Serious doubts about how well concepts have been understood. (Below 5 out of 10).
4. Analysis: What is expected in terms of engagement with the data, interpretation, further reflections? (10 marks).	Extensive engagement with data, as evidenced by references to both content and form of data. Excellent application of theory, and evidence of extended abstract reasoning. Exceeds expectations (8–10 out of 10).	Evidence of some engagement with data. Some application of theory in analysis, only marginally able to draw inferences. (5–7 out of 10).	Little or no engagement with the data. Questionable application of theory, and unable to draw any inferences. (Below 5 out of 10).
5. Organization/structure: what generic organization is required, e.g. introduction, material and methods, results and discussion (IMRD)? How important are discourse organizers or the signposting of the different parts? (5 marks).	Various parts of the essay clearly defined; the generic integrity of each section is respected. The logical connections in the arguments are very lucid. Exceeds expectations. (4–5 of 5).	Essay generally well structured, but with occasional concerns of generic integrity. Logical connectors sometimes provided. (3 out of 5).	Essay poorly organized. (Below 3 out of 5).

Criteria	Excellent	Good	Weak
6. Language: what is expected in terms of grammar (including punctuation), style? (5 marks).	There are hardly any infelicities of language and style. Very clear piece of writing. Exceeds expectations. (4–5 of 5).	Generally well written, with several errors of grammar and infelicities of style. (3 of 5).	Very many errors of grammar and infelicities of style that impede comprehension. (Below 3 of 5).
7. References: what is expected in terms of sources (authoritative, primary/ secondary), documentation, and so on? (5 marks).	Evidence of more than 5 relevant references having been consulted? In-text citations and bibliography follow X style sheet. Exceeds expectations. (4–5 of 5).	3–5 more or less relevant references consulted? In-text citations and bibliography follow X style sheet, but with occasional errors. (3 of 5).	Less than 3 references consulted, even if more are listed. Conventions hardly followed. (Below 3 of 5).

Table 1: Illustration of criterion-based assessment

It is supportive of strategy in teaching for students to have the assessment grid at the latest when they are being told what the assessment task is. In this way, they know what performances are valued, and what effort is required to fall within a mark range in respect of a given criterion. After marking has been done, a "C" grade or a "Weak" assessment on any given criterion informs the student that the learning or pre-knowledge around the particular criterion matches the corresponding benchmark statement and requires more effort. A student scoring 4 out of 5 on each of data, organization, language and referencing, but 3 of 10 on each of the more valued criteria of transcription, theory and analysis ends up with a total score of 25 out of 50. Such a marginal pass should suggest that additional effort is required in very specific performance areas.

6 Managing the aligned curriculum

Coordinating and providing the various kinds of information that make up an aligned curriculum involves quite some effort. Obviously, the pay-off has to be considerable for the effort to be worth the while of stakeholders. A software implementation of curriculum alignment has a number of potential pay-offs, including:

- ready access to the curriculum;
- monitoring and evaluating, to generate data for institutional quality assurance initiatives: for instance, determining or improving the relationship between learning outcomes and examination questions; and
- research data, for instance on the evolution of teaching strategies within a module/across modules in the same/different disciplines.

The second author of this chapter has developed a tool that provides a step-by-step guide to the development of an aligned curriculum. The tool has a database that can be queried to support a range of research, monitoring and evaluation initiatives.

The following screenshots illustrate some of the functionalities of the tool. Figure 4 shows the Home page, with provision for login by both a user and a superuser (administrator). The former is able to create curriculum entries or view entries they have created. The latter is able to exercise oversight over all entries in the database.

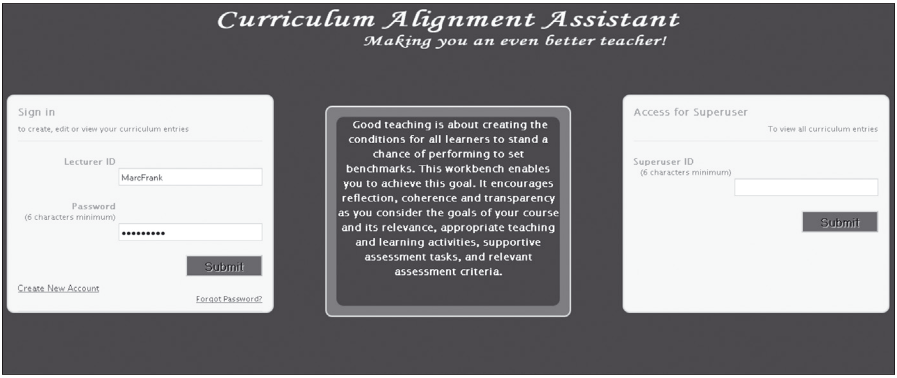

Figure 4: Home page

As figure 5 shows, following user authentication, a session is launched for one of two purposes: to create a curriculum or to view/query a curriculum. The query could be in respect of two document types: an aligned curriculum or a detailed criterion-referenced assessment (that would be similar to table 1).

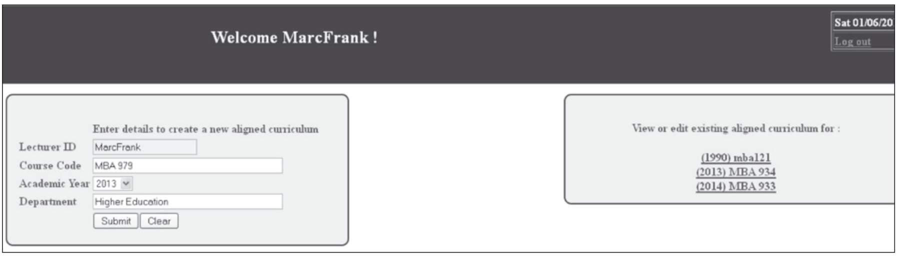

Figure 5: Starting a session

In a first step towards the creation of an aligned curriculum, the user, guided by a tool tip, selects from a pre-loaded list those graduate attributes of University X which the course is well placed to support. See figure 6.

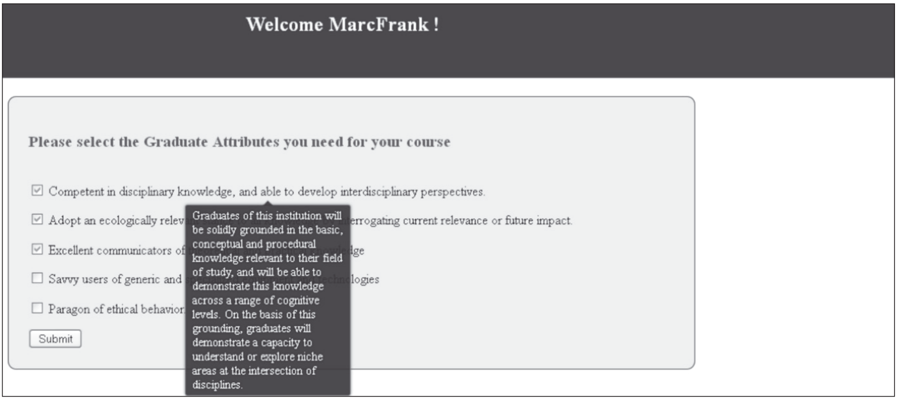

Figure 6: Selecting graduate attributes

With relevant attributes selected and submitted, the user is taken to the workbench in figure 7 to complete other steps.

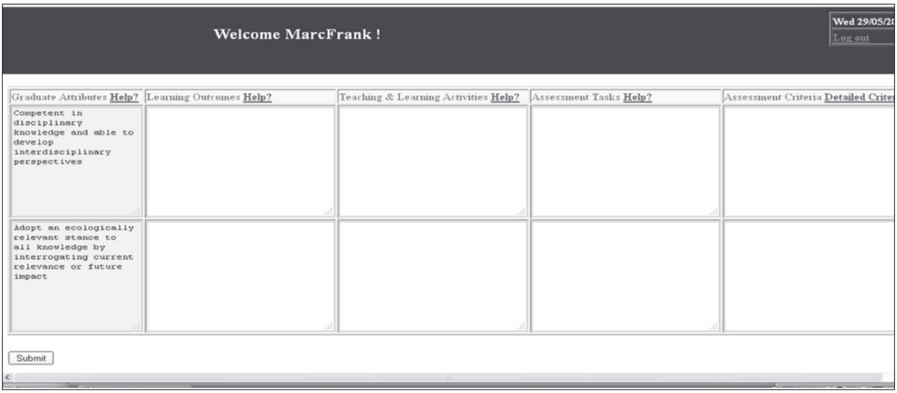

Figure 7: Workbench for entering information on steps 2–5.

For each step, assistance is obtained by clicking the “Help?” link. The window that pops up provides relevant information. While some of the steps require the user to input original text, others simply require copying and pasting from the pre-loaded suggestions in the pop-up window. Thus, in step 2, the user may open the pop-up on learning outcomes to understand what this means in order to input original text (see figure 8).

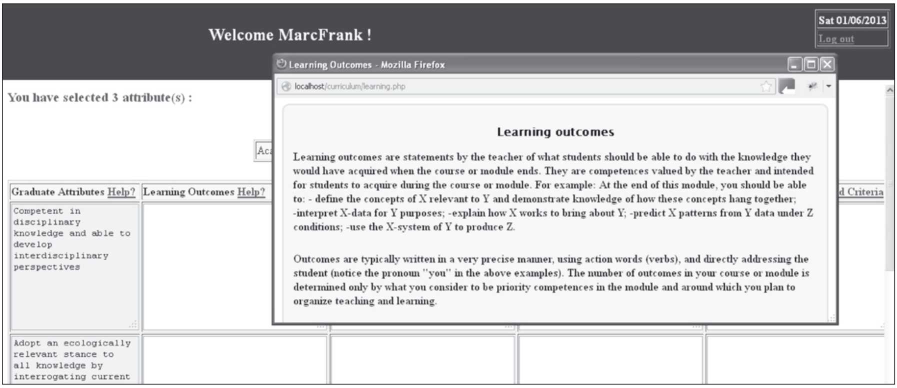

Figure 8: Workbench, with pop-up giving information on what learning outcomes are

In step 3, the user enters the TL activities through which the goals in the two previous columns are to be achieved. In step 4, the user repeats the same process as in step 3, but this time in respect of assessment tasks that are consistent with the corresponding TL activities and supportive of the learning outcomes and, through them, the graduate attributes. In step 5, the user inputs original text describing some very generic assessment criteria. The completed workbench would look like figure 9.

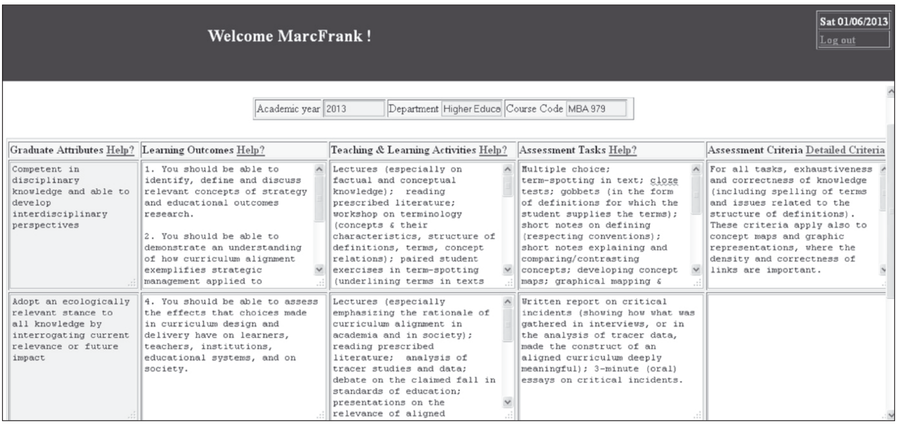

Figure 9: Completed aligned curriculum

To enter customized information for major assessment tasks, rather than the generic one on the workbench, the user clicks on the "Detailed Criteria" link which opens up a page onto which detailed criterion-referenced assessments can be provided (see figure 10). A possible structure of a detailed criterion-referenced assessment was provided in table 1.

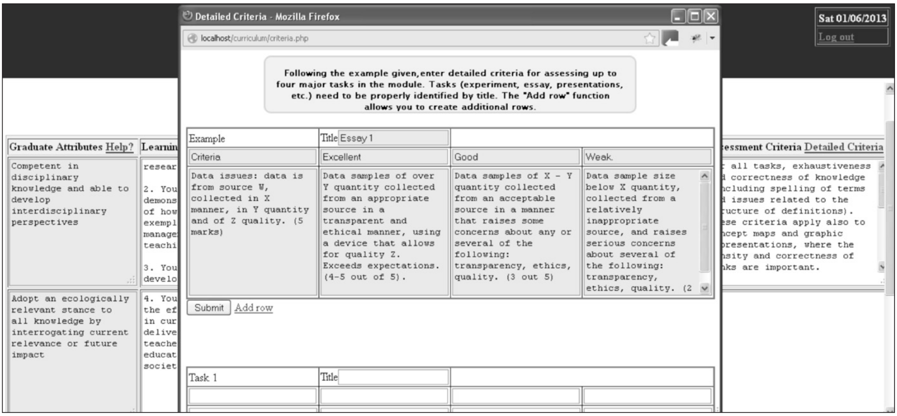

Figure 10: Pop-up window for entering detailed criteria for assessing major assessment tasks

On submitting the work done on the workbench, the curriculum is saved to the database and a Portable Document Format (pdf) is generated. Figure 11 is a partial view of the generated pdf.

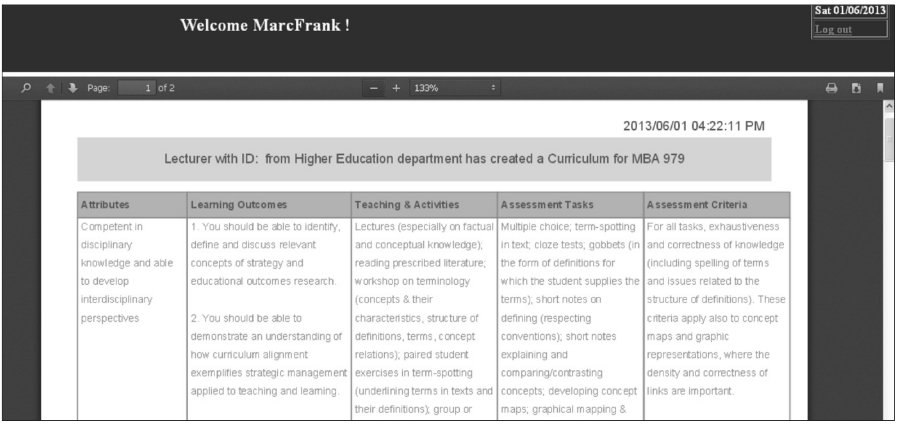

Figure 11: A pdf of the completed curriculum alignment

An important caveat to enter here is that the aligned curriculum does not replace the list of weekly topics. In other words, the student still needs to have the usual resources (list of topics, list of readings, etc.). The aligned curriculum document enables the student to make sense of this all.

7 Conclusion

It might be perceived as paradoxical that academics who eagerly apply strategic management to the setting up and running of their research programs, in order to gain competitive advantage, should be averse to the use of similar instruments in their teaching. Similarly, institutional administrators who develop operating plans and policies for a range of aspects of institutional life have, in some cases, not been forthcoming with comparable initiatives in teaching, with the consequence that teaching and learning easily become the Achilles' heel of institutional performance. In describing a broad spectrum of implications which the neglect of a formalized goal-context for teaching and learning is conjectured to engender, this article has sought to underscore the relevance of a strategic management approach to teaching and learning. The aligned curriculum has been presented as a strategic management tool that entraps students in a teacher-spun web of learning.

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