POLYTECHNIC EDUCATION IN GHANA: A CHANGE MANAGEMENT PERSPECTIVE

BEN Q. HONYENUGA

Senior Lecturer in Management and Public Administration, Ho Polytechnic

ABSTRACT

This paper examines polytechnic education in Ghana from a change management theoretical perspective using Kurt Lewin’s model of unfreezing, moving and refreezing as an approach to Organizational Development. Through the review of literature and examination of relevant policies and documents on education in Ghana and the interaction with relevant stakeholders, the paper traces the genesis of polytechnic education in Ghana and evaluates the extent to which the upgrading of the polytechnics from second cycle to tertiary institutions made use of the three step model of Unfreezing, Moving and Refreezing. The paper discusses the rationale for the upgrading and argues that since the polytechnics as second cycle institutions retarded the human resource development of Ghana they were upgraded in response to the changing manpower needs of the nation. The paper also argues that a legal rational structuralist approach was adopted to implement the change which did not involve the organizational participants and therefore led to resistance by them. However, the polytechnics find themselves in a new era flowing from the massive infrastructural and staff development, NPT project on building leadership and management capacity in Polytechnics, the new educational reforms and the Polytechnics Act of 2007 which are attempting to stabilise the change process to make them focus on their mission to provide career focused and middle level technical manpower that is critical to the socio-economic development of Ghana.

Keywords: Change Management, Ghana, Higher Education, Organisational Change, Polytechnics, Technical Manpower.

1. Introduction

Education in Ghana has gone through changes in structure, content and coverage since 1987. The new structure and content of Education set out to correct the deficiencies of an educational system perceived as overly elitist, which downgraded technical, vocational and agricultural education (National Education Forum Report (NEF),1999). The new educational reform launched in 2007, was designed to prepare the appropriate human resource that are skilled, technologically-advanced and disciplined with the right ethics to service the growing economy (www.ghanaweb.com accessed September 21, 2008).
Tertiary education being the training and retraining of upper and middle level manpower is conceived by the government of Ghana as an essential component of development strategy to steer and manage economic and social development so as to achieve national goals (White Paper, No. 0001/97).

Until 1993, tertiary education was associated with the then three universities namely, University of Ghana, University of Science and Technology and the University of Cape Coast.

The introduction of the Tertiary Education Reforms in 1991 widened the scope of tertiary education beyond the three traditional universities. This resulted in the upgrading of the Advanced Teacher Training Colleges to the University of Education-Winneba and the establishment of the University for Development Studies in the North.

In order to deepen the reforms, the Polytechnics Law 1992 (PNDCL 321) was promulgated. This law established and upgraded the existing second cycle polytechnics to tertiary institutions.

The Big Six Polytechnics upgraded were:
- Accra Polytechnic
- Takoradi Polytechnic
- Kumasi Polytechnic
- Ho Polytechnic
- Tamale Polytechnic
- Cape Coast Polytechnic

Four more polytechnics were later established at Sunyani, Koforidua, Bolgatanga and Wa bringing the number of Polytechnics in Ghana to ten.

This paper therefore examines Polytechnic education in Ghana from a change management perspective using Kurt Lewin’s (1947a) Model of Unfreezing, Moving and Refreezing.

2. Literature review

Change is a fact of life and indeed a part of life (Nauheimer, 2007; Szamosi & Duxbury, 2002). The concept of change management describes a structured approach to transitions in individuals, teams, organizations and societies from a current state to a desired state (Nauheimer, 2007). As a result, change has intrigued, scared and mystified people and continues to pose challenges to individuals and organisations the world over of which the Polytechnics in Ghana are of no exception (Szamosi & Duxbury, 2002).

2.1. Genesis of Polytechnic Education

In line with the socio economic development of Ghana, the Convention Peoples’ Party (CPP) government pursued two main objectives. One was to extend literacy among as many people as possible so that the individual could live a meaningful life in modern society. The other objective
was to train in large numbers, and to provide the manpower required for industry and the
economic and social services of the new nation (Buah, 1980).

To achieve this vision, the government introduced the Accelerated Development Plan of 1951
aimed at speeding up the entire education system of the Gold Coast to enhance socio-economic
development.

To give meaning to this vision of training skilled manpower to enhance socio-economic
development, Accra, Kumasi, and Takoradi Technical Institutes, which were established in the
mid 1950s, were ‘elevated’ to Polytechnic status (URC Sub Committee Report, 1987).

The decision of the CPP government to upgrade the polytechnics though sounded well was
sudden and not supported by the needed resources such as staff, equipment and relevant
curricular. As a result, the three polytechnics for a long time remained second cycle institutions
and continued to run Craft Courses, which should have been properly run by Technical Institutes
(URC, 1987).

In the 1970s, Ghana felt the need to restructure its education to make the curricula reflect the
Unfortunately, the nation could not take bold steps to restructure the polytechnics whilst the
traditional universities were busy turning out graduates (Honyenuga, 2001). The inability to
restructure the polytechnics left a national gap for middle level skilled and technical manpower.

There had been concerns since the early 1980s about the need to upgrade the polytechnics to
enable them train the needed middle level manpower to enhance socio-economic development in
the fields of Engineering, Accountancy, among others (URC, 1987).

Perhaps in response to concerns raised by people who had polytechnic education at heart, or in
line with its own strategy to enhance socio-economic development, the Provisional National
Defence Council (PNDC) Government elevated the Ho, Tamale and Cape-Coast Technical
Institutes to Polytechnic status in the 1986\87 academic year. This increased the number of
polytechnics from three (3) as at 1984\85 to six (6) in 1986\87 (URC 1987).

It should however be mentioned that the increase in the number of polytechnics did not improve
their lot as all of them suffered the same fate of lack of equipment, qualified staff, a conducive
legal framework and structures to make them tertiary. The URC sub – committee (1987:23) on
the Polytechnics has this to say:

\textit{For a long time the situation has been that the staff, equipment, and other
facilities including workshops and laboratories have not been sufficiently
expanded to make possible the introduction of high level courses envisaged.
The situation is further worsened by the fact that most of the existing items
or equipment in the polytechnics were installed about 30 years ago and are
now obsolete. The old machines in use are still in imperial units of
measurement although Ghana has for sometime now adopted the metric
system. For these reasons, the polytechnics have been limited to courses
leading to technician certificates, ordinary diplomas and intermediate
qualifications of some professional bodies.}
In terms of Ghana’s development, the second cycle polytechnics could not produce the needed manpower in the state described by the URC above. Whereas it has been accepted that for a sustained and self-reliant economic growth, modern science and technology must be applied to the economy, this cannot be achieved without equipping the potential manpower of the country with the necessary orientation and skills for the task (Country Paper, 1992).

Coupled with this, is the fact that the polytechnics were not granted Management Boards. Principals ran them within the Ghana Education Service (GES) bureaucracy. The teachers and officers of the polytechnics were all under the Ghana Education Service manpower pool.

The arrangement to operate the polytechnics under the Ghana Education Service bureaucracy instead of operating them as autonomous bodies under the Higher Education Division of the Ministry of Education made them essentially Second Cycle Institutions. In line with their mandate as second cycle institutions therefore, the polytechnics were compelled to offer courses and programmes which lacked broad training in the areas of science, technology and computations. English language which was the medium of official communication in Ghana was not emphasised as a course.

The examination mode of the polytechnics also provided a source of worry. Apart from Institutional Management in Catering and Secretarial and Business courses, which were examined by the Technical Education Division of the GES, the City and Guilds of London Institute assessed most of the courses offered by the polytechnics externally.

The effect of this was that, instead of learning to solve Ghana’s and for that matter Africa’s socio-economic problems, the syllabuses were tailored to address British socio-economic issues. As a result, the polytechnics could not produce the requisite manpower for the nation’s development (Honyenuga 2001).

Attempts have however been made to localise these examinations to make them relevant to Ghanaian conditions. In this regard, the Technical Education Unit of the GES and the West African Examinations Council have taken over these examinations. It is instructive to state that the process to localise and upgrade the courses of the polytechnics as second cycle institutions also contributed to their upgrading to tertiary institutions in 1993 to make them responsive to the changing manpower needs of Ghana (Honyenuga, 2001).

It will be said from the above that the second cycle polytechnics were not equipped to produce the skilled manpower needed for the nation’s development hence, they rather retarded the human resource development of the nation. Since it is tertiary institutions which are legally mandated to perform these tasks, there was therefore the need to do away with the problems posed by the second cycle polytechnics so as to change them to tertiary institutions to enable them produce the requisite manpower to enhance the socio-economic development of Ghana.
2.2. The Role of the Polytechnics as Tertiary Institutions

As part of the Economic Recovery Programme (ERP), steps were taken in 1987 to reform both the content and structure of education for appropriate development of the nation’s human resources (Country Paper, 1992).

The educational reforms, which began in 1987 at the Basic Level was followed by reforms at the Second Cycle level. Tertiary Education reform was thus a natural development in order to meet the new demands imposed by the reforms at the lower levels and the larger ‘intake’ numbers expected at the Tertiary Level (MOE, July 1996).

The education reform among other things aims to reorient the structure and the content of education based on a careful assessment of changing conditions and needs of the nation. In addition, the reform was instituted to rationalise education at the tertiary level to ensure relevance to national development (Country Paper, 1992).

2.3. Conceptual framework

A General Model for Managing Resistance to Change (Adopted from Bateman and Snell 1999)

Unfreezing
(Breaking from Old ways of doing things)  Moving
(Instituting the Change)  Refreezing
(Reinforcing and supporting new ways)

The unfreezing stage represents the first step in stimulating people to feel and recognize the need for change (Schein 1996).

The moving state thus involves the introduction and application of new methods and guidelines to change (Burns, 2004).

Refreezing involves stabilizing the change process by implementing control measures and instituting corrective measures (Schein 1996).

3. Method

The methodology used for this paper was mainly literature review and examination of secondary data, derived from the following sources:

- Publications of Ho and Accra Polytechnics.
Country Paper presented to UNESCO on Education and Development.  
The Polytechnics Act 2007  
The above sources were combined with interaction with stakeholders and observations to reduce bias which may potentially result from relying on a single data source (Eisenhardt 1989; Jarzabkowski 2003).

4. Results

4.1. Unfreezing stage

According to Kurt Lewin, (1947a) any planned change process should begin with the unfreezing stage. This stage is the first step in stimulating people to feel and recognize the need for change (Burns, 2004). In the light of this, the government of Ghana set up the URC in 1987 with the task to review the existing institutions established to provide commercial, technical and other professional education and training at the tertiary level so as to make recommendations to upgrade the polytechnics in response to the changing manpower needs of Ghana. In line with OD tradition, the URC was set up to serve as consultants as put forward by Leapitt, Watson and Westley, (1958).

In order to unfreeze the change process, the committee identified the following hindrances to Polytechnic education:

- Strange but rigid commitment and adherence to some British educational traditions.
- The multiplicity of qualification and the persistence of external examinations such as the City and Guilds of London Institute and the Institute of Chartered Secretaries and Administrators even at the expense of scarce foreign exchange resources.
- Lack of legal framework and Management Boards for the Polytechnics. They were run by Rectors within the Ghana Education Service.
- Teachers in the Polytechnics were all in the Ghana Education Service manpower pool. This arrangement was not suitable for tertiary institutions.
- In addition to iv above, not all the teachers in the polytechnics had the requisite qualification.
- Lack of residential and office accommodation for staff and students.
- Courses offered at the polytechnics were essentially Craft and Technician ones.
- Conditions of service of the Teachers were not comparable to those of the universities (URC, 1987).

The formation of URC confirms the position taken by Mullins, (2002), Moorhead and Griffin, (1992) French and Bell, (1990) and Robbins, (1987) that most planned organisational change is
triggered by the need to respond to new challenges or opportunities prescribed by the external environment or in anticipation of the need to cope with future problems. The URC thus is a demonstration of a systematic attempt made to plan the upgrading in line with the changing manpower needs of Ghana.

4.1.1. Justification for Polytechnic Education

The White Paper, which is the policy document on the reform, identified three significant sources of increasing demand for trained or retrained manpower. These are:

- The Educational Reform Programme
- The New District Administration System and the concomitant decentralization of planning.
- The Economic Recovery Programme (White Paper).

The other reasons could be given as:

- The realisation that the industrialised nations such as Japan, US and Britain are where they are today because of conscious development of technical manpower.
- The high demand for technical manpower all over the world of which Africa is of no exception.
- The aspiration of Africa to industrialise
- The Information Communication technology which is on the run. Africa needs to be at least a follower of this technology.
- Discovery of oil by Ghana

In the light of these sources of manpower demand, a substantial demand of the higher education sub-sector is required to ensure adequate supply of technical manpower with hands on deck to run the country and economy so as to achieve the objectives of Ghana’s policy of accelerating socio-economic growth and to reduce poverty.

In view of the changing manpower needs of Ghana, and in line with the socio-economic development, the polytechnics as second cycle institutions were incapable of addressing the changing manpower needs of their environment so as to solve Ghana’s socio-economic problems. In line with theory, however, the position taken by Katz and Kahn, (1966) would be relevant. According to them organisations, individuals, institutions and structures consistently interact dynamically with forces external to themselves. This process is one in which there is action, reaction and interaction. As a result, social, political and economic happenings within the larger environment affect and is affected by what happens in the organisation.

4.2. Moving stage

The stage entails providing employees with new information, new behavioural models or new ways of looking at things. The moving state thus involves the introduction and application of new methods and guidelines to change (Lewin 1947a)

Success of an organisation could therefore depend on the extent to which it responds to the changes within its environment. Since the polytechnics as second cycle institutions were not
responsive to the manpower needs of Ghana, there was the need to reform them so as to enhance socio economic development of the Ghana. They were thus clothed with the responsibility of training middle level manpower with the requisite skills needed to achieve the country’s developmental goals. In this regard, the moving stage as put forward by Kurt Lewin saw the conversion of the polytechnics as second cycle institutions to tertiary. As Frank, (1966:35) observed that:

As an open system, organisations cannot afford to be insensitive to conditions prevailing in their environments. The issue of change therefore becomes an inevitable part of every organisation. The structure, management and functions of an organisation are not only determined by internal consideration and choices, but strongly influenced by a range of external environmental factors such as Government proposal for change, technological changes, perception of clients inter alia. Flux therefore exists in all areas of organisational life. Thus organisations and individuals if they are to function effectively must be capable of diagnosing situation, possess the ability to act and be flexible to change.

4.2.1. Policy Change in Polytechnic Administration

With the enactment of the Polytechnic Law 1992, the polytechnics were removed from the Ghana Education Service bureaucracy and granted institutional, operational, administrative, and to some extent financial autonomy. (PNDCL321). The polytechnics were therefore granted separate existence, separate management boards called councils to reflect a new corporate, quasi-self accounting status guaranteed by the enactment. (PNDCL 321; Honyenuga 2001).

4.2.2. Polytechnic Management

The law provided for a Rector (Principal) to serve as the academic and the administrative head as well as chief disciplinary officer of the polytechnic. The Rector is by virtue of his office a member of the Polytechnic Council, Congregation, Convocation, the Academic Board and all its Standing Committees (Ho Polytechnic, 1995).

The Rector under the Council is the Chief Administrative officer of the polytechnic. He/she is the Chief Executive of the Polytechnic. He/she is responsible in accordance with the Polytechnic Law and statutes and with decisions of the Council and the Academic Board for organising and conducting the financial and administrative business of the polytechnic. It is the duty and right of the Rector to advise the Council and Academic Board on all matters affecting policy, finance, governance and administration of the polytechnic (PNDCL321).

In the performance of his duties as the head of administration and finance, the Rector has two brains to advise him. These are: the administrative brain who is the Polytechnic Secretary who is now known as the Registrar and the financial brain who is the Finance Officer of the polytechnic (Honyenuga, 2001).

Since management of tertiary institutions is different from that of a second cycle one, the Academic Board is by implication the unseen manager of the polytechnics (Honyenuga, 2001).
is the highest decision-making body that governs academic activities of the polytechnic. The opinion of the Academic Board is usually sought by the Polytechnic Council before it takes decisions on any academic matter in the Polytechnic. This makes the functions of the Academic Board so wide spread that they cut across the very fabric of the polytechnic.

4.2.3. Convocation

The change management process put in place Convocation, which is a forum for the discussion of any matter affecting the life of the polytechnic. Convocation may be likened to the Parliament of the Republic but does not make decisions on its own. Matters of serious concern are referred to the appropriate committee. Convocation comprises of all senior members and some senior staff of the polytechnic.

4.2.4. Polytechnic- Industry Linkage

This was one of the innovations brought about by the implementation of the reform. The moving stage is to introduce and apply new methods and guidelines to the change process. This is aimed at upgrading the polytechnics so as to train career focused and practically oriented manpower needed for the development of the nation. Hence the establishment of the Industrial Liaison Office which coordinates the affairs of the polytechnic with respect to industry. This is to ensure that polytechnic students have at least six months relevant industrial experience before graduating (Accra Polytechnic, undated).

4.3. Refreezing stage

The refreezing stage of the change process involves stabilizing the change process so as to achieve the objectives for which the polytechnics were upgraded. Unfortunately, this stage has been confronted with a lot of challenges some of which have been discussed below.

4.3.1. The Change Management Strategy adopted to implement the change

The Law which was enacted to effect the implementation of the reforms adopted a formal legal rational structuralist approach. As a result, the reform was concerned with the technical realisation of its goals without taking care of the social psychological needs of the organisation’s participants, which would have created a sense of ownership and commitment (Honyenuga, 2001). The implementers were more interested in putting in place structures for the new polytechnics at the expense of the people. In such a circumstance, the theory of planned change, as put forward by Kurt Lewin, (1947a) clearly points to resistance. It is not therefore surprising that there was resistance at the moving stage by the employees and the polytechnic students.

The result of this neglect led to instability on the Polytechnic campuses resulting in series of industrial actions embarked upon by staff of the polytechnics to back their demands for enhanced conditions of service. The decreeing of the change process from a command and control perspective arose the problem of non-recognition for the Higher National Diploma (HND) awarded by the polytechnics to be at
par with the university degree as earlier intended in the White Paper. This led to boycott of lectures by polytechnic students which ultimately distorted the academic work on the various campuses.

From a change management perspective, the students should have been given the right information as to the qualification to expect on completion of their courses. Essentially, there was lack of trust, communication and non-involvement of the students. The absence of these by implication, led to all forms of resistance on the part of students.

4.3.2. Funding Level of Polytechnics

The funding level of the polytechnics has also been a source of worry to those concerned with polytechnic education. In 2006, while the government spent 727.991 billion old cedis on public universities, an amount of 104.636 billion old cedis was spent on the ten polytechnics (NCTE July 2006). The implication for the change process is that the lack of funds constrained the polytechnics in the realisation of the reform objectives.

4.3.3. Inadequate human and material resources

The absence of the right quantity and quality of resources both human and material has been the bane of the polytechnics in their efforts to live up to their objectives and role as a career focused and practically oriented institutions. The implication for change management is that the intention of the change cannot be realised without the right quantity and quality of human and material resources.

It is thus not surprising that the National Education forum held in November 1999 recommended that in order to enable the polytechnics live up to their objectives staff motivation and provision of equipment must be improved.

4.4. New era for Polytechnic Education

The polytechnics appear to find themselves in a new era with respect to infrastructural development, the new Polytechnic Act, the educational reforms and the NPT 045 project as discussed below:

4.4.1. Infrastructural and staff development

The polytechnics have seen a massive improvement in infrastructure since 2001. The establishment of the Ghana Education Trust Fund and the commitment of the Government to invest in polytechnic education made this possible. Polytechnics which operated in one single building now have faculty, residential and appropriate workshops to enhance their operations. There was also an accelerated development for the staff especially academic staff of the polytechnics. This improved the staff profile of the polytechnics and predisposed them to carry
out their objectives of providing career focused education to enhance the socio-economic development of Ghana.

4.4.2. The Polytechnics Act

The Polytechnics Act 745 has also granted academic autonomy to the polytechnics. What this means is that the polytechnics are now free to develop and mount relevant programmes on approval by the National Accreditation Board. They are to award their own certificates. This is significant because until the passage of Act 745, the polytechnics were regulated by the National Board for Professional and Technician Examinations (NABPTEX) in the development of programmes, conduct of examinations and award of certificates which constrained the polytechnics as tertiary institutions. Unfortunately, five years after the passage of Act 745, the polytechnics have not been able to fully assert their autonomy since they continue to subject their examinations and award of certificates to NABPTEX.

Another anomaly that the Act rectified is the representation of the Polytechnic Teachers Association of Ghana- the mouth-piece of the academic staff on the Polytechnic Council. Hitherto, the academic staff who are the backbone of any tertiary institution were not granted representation on the Polytechnic Council which is the highest decision making body. It was rather the junior members (students) and the junior staff represented by the Teacher and Educational workers Union (TEWU) who had representation. The rectification of the anomaly may create sense of commitment to the goals of the polytechnic.

The Act also re-christened the Principal as Rector, the Polytechnic Secretary as Registrar and Schools as Faculties. Though the re-christening is a matter of nomenclature, it is believed would entrench a tertiary culture in the polytechnics.

4.4.3. The New Educational Reform

The 2007 educational reform lays emphasis on Technical and Vocational Education of which the polytechnics were to offer at higher levels. The reorientation of the Senior High School programme with electives which include Technical, Vocational and Agriculture options and the inclusion of core subjects of English Language, Mathematics and Science at the Technical schools (www.moess.gov.gh accessed September 24, 2008) provides a source of recruitment into the Science and Engineering Programmes of the Polytechnics.

4.4.4. NPT 045 project

NPT project on building leadership and management capacity in polytechnics was a collaboration between the Institute of Educational Planning and Administration (IEPA) of University of Cape Coast and the Centre for International Cooperation (CIS) of the VU University of Amsterdam.

The project among other things had the following specific objectives.

- To provide training in leadership and management competencies for top and middle management of the polytechnics.
- To develop change agendas per polytechnic
To implement the change agendas
To develop information policy plans per polytechnic

The training programmes of the project provided opportunities for top management as well as some heads of academic and supporting staff of the administration to receive training in varied areas of management. The capacity building programme was significant because most of the Polytechnics did not provide well tailored training for the managers of the Polytechnic. (Honyenuga and Kowenhoven, 2009). From a change management perspective, the NPT programme and its training opportunities served as a platform for additional coaching and modeling to enhance the effectiveness of the Polytechnics in Ghana.

5. Discussion

The paper applied the concept of planned change as an approach to OD using Kurt Lewin’s model of unfreezing, moving and refreezing.

The paper clearly demonstrates the goals and forces that led to the upgrading of the polytechnics to tertiary institutions. The findings reveal that the polytechnics were upgraded in response to the changing manpower needs of Ghana. This was essentially the unfreezing stage of the change process where the forces and reasons behind the change were outlined.

The paper also discusses the implementation process and the strategy adopted to implement the upgrading. This is the moving stage as put forward by Kurt Lewin, (1947a). The establishment of the new organisational structures such as the Polytechnic Council, Academic Board, Convocation, industrial liaison office, and academic divisions were done during the moving stage.

In addition, the paper reveals that a legal rational structuralist approach was adopted without the participation and involvement of the organisational participants which led to a number of resistance by organisational participants. The resistance to the change process confirms planned change theorists view that non-involvement of participants breed resistance.

The refreezing stage, involves the establishment of a process to make the new level of behaviour relatively permanent. The findings reveal that the refreezing stage has not been very effective and for that matter faced a number of challenges. This was supported by the inadequacy of the human and material resources in the polytechnics. The absence of these resources constrained the achievement of the goals of the polytechnics. Thus, Schein, (1996) observed that there is the need for additional coaching and modeling at the refreezing stage so as to reinforce the stability of the change process. No wonder, there has been massive infrastructural development as well as staff development in the Polytechnics since 2002. Added to these is the passage of the new Polytechnic Act 745 and the opportunities provided by the NPT leadership and capacity building project aimed at stabilising the change process.
6. Conclusion

It is said that the only thing constant in today’s competitive world is that of change itself (Bender, 1997). Organisational change has therefore become a crucial factor in the success of organisations. Hence, attempts must be made to ensure that such change is effective and impacts positively on the organisation. This paper, it is hoped will provide an insight into Polytechnic Education in Ghana and the polytechnics which are going through turbulent times as young tertiary institutions with a distinct focus.

References

Accra Polytechnic (undated): General information.


Frank, H.E.(1966):” An indirect approach to organizational involvement” in Management International Review. 4(1) pp35-53


Ghana, Republic (1991) White paper on the reforms to the tertiary education system (Command No. 0000197)


Kantz, D. and Kahn, R, (1966), The social psychology of organizations, John Willy and Sons.


Polytechnics Law 1992 (PNDCL321)

Polytechnics Act 2007 (Act 745)