

Management of Curriculum Change: A Mechanism for Ensuring Continuous Academic Improvement in Ghanaian Universities

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Abstract

Effective collaboration in the curriculum change effort remains a challenge in higher education, in particular, with comprehensive curriculum reform or change. Curriculum modification to existing courses or content will not always lead to the desired reform even though a collaborative approach has been the foundation of the process. Comprehensive and collaborative curriculum change requires a full examination of how academics conceive their role and how the curriculum itself is defined, analyzed, and changed. Through a systematic review of literature, the researchers were able to create a contextualized emergent model for curriculum change management for Ghanaian universities derived from experience and educational policies. It emerged from the review of literature that a collectively shared guiding vision for an effective curriculum change provided a strong foundation for the comprehensive curriculum review process; Embracing curriculum as a shared responsibility among faculty and administration led to widespread participation; The collaboration of various groups within the institution in the process promoted organizational change; Cultural issues regarding people and organizational structure served as barriers to the collaboration process, simultaneously the curriculum team's sense of community strengthened the curriculum review process. This position paper, therefore, recommends that the Ministry of Education in conjunction with the Ghana Education Service should ensure that the practice of curriculum change is highly decentralized to reflect local concerns. Thus, the decentralization of the process would be tailored towards the local needs of the area. This would make education more meaningful and relevant to students.

Keywords: *Curriculum, Curriculum Change, Higher Education, Continuous Improvement, Curriculum Reform, Institutionalization.*

Introduction

Within the context of higher education, a curriculum or a program of study is a pivotal issue in the relationship between students, teaching staff and the university. However, different stakeholders experience the curriculum (as a program of study consisting of several courses) from their point of view and are often only aware of a part of all important aspects building the curriculum. Therefore, curriculum issues are complex to discuss, especially, when it comes to the concept of curriculum change that has diverse perspective from different stakeholders. Clear and useful tools that describe all curriculum building blocks and their relationships can be helpful to stimulate all stakeholders to tackle educational issues taking into account the entire curriculum perspective.

In the 1990s, democracy in schools was welcomed by all, including teachers, who then had to face curriculum changes, training for curriculum changes and bringing the education of the previously disadvantaged communities on par with the rest of the world (Mudau, 2014). The process was difficult to manage, as change had to start with the drafting of policies and the setting up of structures and legislation. Despite the opportunities brought about by educational democracy and the need for improvement in education standards, the conditions in many schools today still need serious improvement (Joubert & Prinsloo, 2009). For instance, most schools are characterized by a lack of resources, inadequate practical skills and a lack of content knowledge and methodologies. In other instances, educators feel that problems such as a lack of facilities like classrooms and a teacher-ratio which is too high, demoralize them and result in a lack of discipline in schools (Mudau, 2014).

Through experience and observation, the researchers have observed that school management teams have different experiences of education in Senior High Schools. These manifest themselves in various ways. The school management teams as well as teachers in various districts often express their dissatisfaction with the way in which they are expected to manage curriculum changes in Senior High Schools. They complain about a lack of proper consultation on the part of the Ministry of Education represented by the Curriculum Research and Development Division.

Furthermore, the introduction of ICT and other learning areas in the Curriculum results in a challenging situation for schools. The reality is that there are very few facilities to meet the demands brought about by the curriculum change. In addition, inadequate resources, together with a lack of practical skills, content knowledge and the right blend of pedagogical content knowledge have made the management of curriculum change more difficult in Senior high schools in Ghana. The school management teams in these schools have a difficult path to tread in terms of dealing with the implications of how to make the management of curriculum change a reality. In an evaluation of the gains with the introduction of the new curriculum it seems that conditions are still the same in most of the secondary schools in Ghana as they were prior to the start of democracy.

Due to problems such as inadequate training regarding curriculum implementation, lack of guidelines for managing and monitoring the implementation of curriculum changes and the complexity of managing new changes in the existing curriculum, most secondary schools in Ghana are not able to successfully manage curriculum changes.

Educational institutions, like all other organizations, require constant monitoring to identify areas for potential improvement. This is necessitated by the fact that commercial enterprises, non-profit organizations, service industries, government instrumentalities and educational institutions all undergo change (Apple, 2004).

The quest for a school curriculum that best addresses Ghana's development agenda has been at the core of the country's policy making efforts. Indeed it can even be argued that the state had realized the centrality of such curriculum soon after independence by establishing several committees for the designing and developing school curricula. As pointed out by Kelly (2009), Ghana's curricula reforms have passed through phases reflecting the dominant philosophy and education policies at that period.

The curriculum changes and reforms that have taken place so far in Ghana were purposely conducted to address elitist tendencies that dominated the post-independence and colonial-adopted curriculum, to provide education for more of the rural majority, to make schools more self-reliant, to encourage attitudes favourable to agricultural work, to contribute to a reduction in urban drift, and to help integrate the schools with the community (Blignaut, 2011). The changes on school curricula that were introduced after the mid-1980s were a reaction to the adoption of liberal policies at the macro-level, after which the various social and economic sectors had to abide with. Education began to be looked as a commodity to be bought and students became the client. Syllabuses that for so many years were provided to schools at no cost by the Government began to be sold in bookshops as well as by the responsible institute. Textbooks, another freely-provided item became a huge commodity in the market with global publishing conglomerates competing for it.

The focus of this write up is to investigate the curriculum changes that need to be managed in the Ghanaian context to enable us create a contextualized emergent model for curriculum change management derived from experience and educational policies. This enabled us situate the model in the wider global context of research, theory and practice by establishing its implications on Ghanaian Universities.

Curriculum Change Management

Curriculum consists of intentionally undertaken activities that are planned so that certain objectives will be reached, so that learners will come to know certain things and have habits and patterns of emotional response (Skillbeck, 1996). In other words, *curriculum* is that which is taught at school. It is an approach that focuses on and connects teaching in a school, giving meaning to what teachers do and making teaching predictable.

Change is defined as a phenomenon that affects all aspects of a person's life (Mampuru, 2001) represents the struggle between what is and what is desired. *Change* may be described as the adoption of an innovation, where the ultimate goal is to improve outcomes through an alteration of practices (Print, 2013). In the context of education, *change* means that the school principals are exposed to new controls and regulations, growth, technological developments and changes in the workforce (Kotter & Schlesinger, 1999). *Change* has both technical and human aspects. It begins and ends with individuals acting in unison

to make schools effective. In short, *change* refers to a planned, systematic process affected by individuals, and which takes time to come to fruition.

Curriculum change management therefore refers to a process whereby human resources are utilized to provide the successful implementation of an innovation of what is to be done at school with the aim of fulfilling the particular teaching and learning needs and achieving the stated goals of the school (Apple, 2004).

Curriculum and Curriculum Reform

According to the earliest work on curriculum by John Franklin Bobbit, curriculum originated from the chariot tracks of ancient Greece and later the Latin term *currere* (to run) adopted to represent it (Kelly, 2009). The term 'curriculum' used within the higher education context can mean different things to different groups (Barnett and Coate, 2005; Fraser and Bosanquet, 2006). Sometimes the curriculum is reduced to the structure and content within one course. In this paper, the description of course and program that is made by Biggs and Tang (2011) is retained. So the focus is on aspects of curriculum development that go beyond those of course design and include all courses within one program. Curriculum theorists of the 20th Century went further to include the entire scope of formative deeds and experiences taking place within school and without, the planned and unplanned experiences as well as those that were intentioned done and carried out (Kelly, 2009). In his work (the Long Revolution), Raymond Williams points out that the content of a curriculum helps to guide distribution of education in society as the cultural choices involved in the selection existed in organic relationship with the social choices. Greek and Latin philosophical thinking later greatly impacted on Western school curricula systems. As noted by Apple (2004), curriculum is the foundation of any education system, and thus it often requires frequent revisiting for improvement of prescribed standards and to reduce inconsistencies.

Mitigating Factors Influencing Curriculum Change

Due to the worldwide dynamics for change on account of technological developments, the curriculum of a school is subjected to considerable pressure to change from its current situation. Within the Ghanaian context this demand is extremely prominent in order to enable the country's citizens to cope with the changing socio-political, economic and technological environments within the context of a 'new' democracy.

Technological Environment

Technological changes have serious consequences for changing the curriculum since they result in major changes in the kind of knowledge that society wants its youth to acquire.

Technological changes lead to changes in the values and norms of society and thus put tremendous pressure on the curriculum (Shiundu & Omulando, 2012). These changes bear testimony to the fact that the technological platform on which products and services are built is growing in complexity. Work processes are re-organized and new knowledge is constantly introduced. Different skills and management

competencies from those required in the previous age of mass production are therefore required. These new competencies include proficiency in Mathematics, computing, reading, writing and reasoning, the ability to use resources and information constructively, the ability to understand systems and master technology as well as flexibility to cope with change in the workplace (Pretorius, 2001). The fact that Ghana is now part of the global economy means that businesses have to adapt to the structural changes required. All these changes require continuous evaluation to ensure that the curricula and content of subjects offered in schools are indeed suitable and equip learners to face the challenges in the workplace. These challenges relate to an increased demand for science, engineering and technology-orientated skills, of which the demand for knowledge and skills in the use of computers and calculators is but one example (Horn, 2006).

Socio-Political Environment

Curriculum change in schools reflects changes in society at large (Print, 2013). Such changes are invariably indirect in nature and the association or linkage between societal and curriculum change is rarely a perfect match. Many societal changes may have a significant impact upon the school curriculum in several ways. For instance, the culture of a locality plays a critical role in the teaching and learning process of the Ghanaian curriculum.

Economic Environment

The successful adaptation of workers to the country's structural change was also slowed down by several economic factors such as high levels of unemployment, inflation, interest rates, taxes which has indirectly led to the denial of access to quality education to the vast majority of the population for many years (Marishane, 2002). These economic changes have had significant change on the country's educational system (Shiundu & Omulando, 2012). These changes influenced the curriculum to change in order to provide sufficient skilled manpower to meet the demands of the local and the global society. In Ghana, many changes in the curriculum have come about due to the politically inclined demand for equity linked to the economically inclined demand for competency at the world market. For instance, on a very broad scale one could consider how the school curriculum in Ghana has changed to reflect the general economic changes in society since independence. These changes have exerted greater demands for basic competencies and a greater vocational orientation. Furthermore, the increase in the importance of knowledge-based skills to adhere to a service sector economy has led to smaller demands for unskilled labour. In Ghana, greater emphasis needs to be placed on technical and occupational education, particularly at the secondary and higher educational levels. These changes were viewed as a progress towards a golden age (Blenkin, Edwards & Kelly, 1992). More recent developments have put an increasingly higher demand on the cultivating of skills to be productive in a knowledge-based economy.

Curriculum Change and Development Models

Curriculum models help curriculum designers to systematically and transparently map out the rationale for the use of particular teaching, learning and assessment approaches. Ornstein and Hunkins (1993) suggest that although curriculum development models are technically useful, they often overlook

the human aspect such as the personal attitudes, feelings and values involved in curriculum making. Therefore, they are not a recipe and should not be a substitute for using your professional and personal judgement on what is a good approach to enhancing student learning.

As commonly described, maybe slightly simplistic version, of polarized curriculum models are those referred to by many authors as the 'Product Model' and the 'Process Model'. describes the emphasis of the former on plans and intentions and the latter on activities and effects (The Process Model). The Product Model can be traced to the writings of Tyler (1949) who greatly influenced curriculum development in America (O'Neill, 2010):

Models that developed out of Tyler's work, were criticised for their over emphasis on learning objectives and were viewed as employing very technical, means-to-end reasoning. The higher education context in Europe, which has been strongly influenced by the 1999 Bologna Declaration (European Commission, 2009), uses a model not dissimilar to Tyler's work. (O'Neill, 2010, p. 63).

The Product Model, however, has been valuable in developing and communicating transparent outcomes to the student population and has moved emphasis away from lists of content. Recent literature in this area suggests that in using this model, care should be taken not to be overly prescriptive when writing learning outcomes (Apple, 2004). For example, Hussey and Smith maintain that:

accepting that student motivation is an essential element in learning, we propose that those who teach should begin to reclaim learning outcomes and begin to frame them more broadly and flexibly, to allow for demonstrations and expressions of appreciation, enjoyment and even pleasure, in the full knowledge that such outcomes pose problems for assessment. (Hussey & Smith, 2003, p367).

Knight (2001) expresses the advantages of a more Process Model of curriculum planning in comparison to the Product. He notes it makes sense to plan a curriculum in this intuitive way, reassured by the claim from complexity theory that what matters is getting the ingredients - the processes, messages and conditions - right and trusting that good outcomes will follow. This suggests that when working in a more Product Model of learning outcomes, it may be more valuable to first consider what it is you are really trying to achieve in your teaching/learning activities and to then write your programme and/or module learning outcomes.

In addition to the Process and Product Model, there are a range of different, more specific, models that individually or collectively could suit your programme design. Some of the curriculum models have grown out of different educational contexts, such as Senior High School, Higher and Adult Education. However, many are transferable across the different areas. Some are described as 'models' and as they become more specific they may be referred to 'designs', i.e. subject-centred designs.

Strategies and Models of Curriculum Change Management

The curriculum as it is conceptualized in this paper is not a static description. On the contrary, it is a dynamic environment that cannot be grasped within one snapshot. It develops continuously due to environmental demands and contextual changes. Therefore, to make the conceptual scheme useful in

different contexts (e.g. designing, revision, experiencing) and for different stakeholders (teachers, students, policy makers, alumni,...) the curriculum is approached from different points of view.

Development of curriculum understanding

A first perspective taken into account was the vision of the curriculum as a place to develop understanding. Kelly (2009, p.91) argues that outcomes of a curriculum should be defined in terms of intellectual development and cognitive functioning rather than in terms of quantities of knowledge absorbed or in terms of behavioural changes. He emphasizes the consequences for curriculum planning (Kelly 2009, p.94): (1) rejection of the knowledge base for curriculum planning, (2) clear statements of the underlying educational principles or processes, and (3) education as a process of development. Discussing the curriculum in higher education should be about discussing the students' learning experience as is emphasized by other authors (Posner, 1995). By incorporating the process of intellectual development student learning becomes prevalent.

Product and process approach to curriculum

A second perspective is the focus on a process approach additional to the product approach. The product approach is initiated by Tyler's (1949) rather mechanistic conceptualization of planning quality curricula by posing four questions: (1) What is to be accomplished? (2) What learning experiences will help accomplish the purposes? (3) How can these learning experiences be effectively organized? (4) How can the effectiveness of the learning be evaluated?

Stenhouse (1975) advocated for a process approach. He proposed to select content, develop teaching strategies, sequence learning experiences, and assess students' strengths and weaknesses with an emphasis on empiricism: a process curriculum was designed to be not an outline to be followed but a proposal to be tested. Knight (2001) also argues for a process approach by stressing the necessity of coherence and progression in a curriculum. He returns to Jerome Bruner's concept of the spiral curriculum (Bruner, 1960), saying "Bruner depicted a good curriculum as a spiral of repeated engagements to improve and deepen skills, concepts, attitudes and values, and extend their reach. The spiral curriculum has coherence, progression and, I claim, value" (Knight 2001, 371).

Planned, delivered, experienced curriculum

The final perspective is recognition of the difference between the planned, delivered and experienced curriculum (Prideaux, 2003). What is planned by staff members for the students may differ from what is delivered and from what students experience or actually learn (Posner, 1995). Therefore, a continuous process of aligning planned outcomes with the delivered program and its confrontation with the experience of graduated students and alumni is necessary. This approach also serves to uncover both the hidden curriculum (unconsciously transmitted and received messages by instructors and students) and the null curriculum (what is not taught) (Eisner, 1979).

Curriculum Change Process

Many educational change processes are technically simple but socially complex. In this regard Dean (2005) points to the fact that personal and social changes within schools are complex and, on occasions, contradictory and confusing. Some of this confusion is the result of staff members actively embracing a rigidly bureaucratic approach which serves their interest, rather than the needs of their clients. In this regard, Van der Merwe (2002) is of the opinion that the implicit assumption of a curriculum led approach, in which the teacher and the learner are one and the same, has to be questioned, and the learner given a separate identity and a greater degree of autonomy.

Against this background, the process of curriculum change management should provide the means by which high quality learning is achieved. In Ghana, the process of curriculum change after independence found teachers ill-prepared for the new demands placed on them. Teachers were exposed to embryonic changes resulting from the vision of a national curriculum designed to provide direction for changes across the country (Jansen, 1998). Curriculum change in Ghana became the pious wish for changes in the social system at large. In order to understand these socio-political and economic changes foreseen to be brought about by curriculum change in Ghana, one should be able to understand the process of curriculum change which includes a number of aspects namely, need, mobilization, implementation and institutionalization (Blignaut, 2011).

Needs Identification

The beginning of the curriculum change process lies in the expressions of concern, dissatisfaction or need with the current curriculum or curriculum practices (Dean, 2005). Consequently, a demand or expressed need may come from a variety of sources such as teachers, learners, parents, administrators, employers, educational systems or a combination of these sources. Change will not occur without this need being present. At times persuasive methods to promote change are necessary if curriculum change is to succeed. People must recognize and accept the need for curriculum change (Print, 2013). If classroom teachers, for instance, do not recognize and accept the need for a particular curriculum innovation they will become resistant to it and hence place the success of the curriculum change in jeopardy. Thus, the first phase of successful curriculum change may involve those initiating the changes to convince change participants of its value.

Mobilization

Mobilization is the process whereby the system prepares for a change in state (Blignaut, 2011). *Mobilization* can be described in terms of four functions, namely, policy image development, planning, internal and external support. Delivery of the essential material needed for effective implementation was often uneven and often the essential documents were confined in the principal's office (Jansen, 1998). External and internal support was often missing from the mobilization phase of micro-implementation (Blignaut, 2011). The teaching and learning support services in many provinces were not established and in those provinces where it existed, officials were not appointed or lacked the necessary

capacity to offer the necessary support. Principals were also not supportive of radically transforming the curriculum because this threatened the status quo.

Implementation

The implementation phase may be considered as a continuum, stretching from the need of a new curriculum until its complete acceptance (Print, 2013). In the curriculum change process, implementation begins with the initial attempts by teachers to effect the innovation into various schools/institutions. As this phase progresses, participants usually develop confidence and expertise and so it has a greater chance of success. This is a crucial phase in the change process.

Institutionalization

For the innovation to have been institutionalized required that innovation is used continually over time (Print, 2013). This phase has to take time and change cannot be considered to have occurred successfully until institutionalization is evident. Many innovations appeared to succeed in the earlier stages only to flounder when exposed to the broader context for which they were intended. Many innovations in the curriculum received the artificial support in the form of finance, consultants and administrative favour during the early stages of implementation. The removal of these supportive factors led to the demise of the innovation. By contrast, schools that were lacking support and which were essentially destabilized by high staff turnover, inadequate leadership support, low levels of resources, poor support services and constant student mobility had difficulty institutionalizing change (Print, 2013).

The Role of School Management in Managing Curriculum Change

The school management team has the day-to-day responsibility for the professional and operational management of the school. This means making sure that the policies agreed on by the school governing body are put into practice, that all areas in the school function effectively and that people work productively towards achieving the school's vision and mission (Blignaut, 2011). With regard to change, much of the school's activities revolve around the school management team. This determines to a great extent, the school's success or failure when change is implemented (Blignaut, 2011). In order to effectively manage curriculum change, the school management team should take into account both the degree to which the total school community will be affected by the curriculum change and the degree to which the school community is aware of the changes. As a result, the school management team should play an active role in managing curriculum change.

A school management team functions effectively if the senior managers (principals and deputy principals) and the middle managers (heads of department and senior teachers) work together (Van der Merwe, 2002). Apart from possessing detailed knowledge of the realities of teaching and learning the senior managers should offer clarity of purpose and vision in order to help the school management team to act with authority (Van der Merwe, 2002). Ofsted (2014) indicates that the higher order cultural and symbolic

role of the school management team pertains to ensuring an adequate foundation of experience and knowledge with the opportunities for discussion, reflection and evaluation, in order to give learners the maximum scope to develop the spiritual, moral, social and cultural dimensions of human life. The key role of the school management team is to encourage members of staff to reflect upon, debate and agree on collective interpretations of how the curriculum should be taught and the range of experiences which learners should be offered. However, the reality indicates that a lack of time and resources are the constraints that hamper school management teams to take on more than routine administrative tasks (Blignaut, 2011). This effectively hampers the process of teaching and learning.

Managing the School Environment for an Effective Curriculum Change

The school has different levels of accountability at school management and classroom management level. This accountability relates to ensuring that quality teaching and learning happen within the school (Marishane, 2002). It is the responsibility of the school management teams to ensure that their schools deliver their brief against the mission, vision, curriculum goals and action plans for their schools. With regard to the demand for curriculum change, the success of a school lies in its success in creating a supportive environment for curriculum change to take place. There are a number of indicators that can be put in place to measure this success. The main indicator relates to increased learner performance and attainment. A second important indicator relates to defining ways of motivating teachers and learners to accept challenges presented to them by the new practice (Marishane, 2002). Related to this is the identifying and developing of support strategies and mechanisms and the defining of teaching and learning expectations. This means that the outcomes for teaching and learning practices should be clearly spelt out.

Pedagogical leadership as a network of curriculum development processes

A very high number of the doctoral theses assessed the pedagogical leadership from several different perspectives, but none has comprehensively linked pedagogical leadership to school management. The researcher who has perhaps proceeded farthest in this respect is Print (2013), whose synthesis finishes up presenting a basic education principal as being a broad pedagogical leader. In addition to planning and organizing teaching work, Print suggests that a principal as a broad pedagogical leader also attends to the qualitative development of knowledge and learning. Print includes knowledge management under pedagogical leadership and expands pedagogical leadership into a need and concept relating to the entire organization.

Building on the doctoral thesis by Apple (2004), among others, it is probably possible to expand Print's view even further also to cover other organizations besides schools. Apple's doctoral thesis is a case study on superiors as team tutors and pedagogical leaders in a process organization. The study was carried out in a company and reversely utilises educational research and terminology concerning pedagogical leadership. Apple (2004, p.72) defines pedagogical leadership as being 'the superior's ability to guide subordinates towards the common goal, make the specified visions and objectives visible and teach people to understand and interpret, as well as discuss and manage interaction by means of positive interdependence and openness'. It is probably fair to say that the role of every organization's leader

nowadays is to be the organization's pedagogical leader responsible for development and management of organizational knowledge, staff's professional development, utilization of distributed leadership, development of a creative learning culture and management of network based learning. The new broad pedagogical leadership seems to be formed in a network of interaction and development processes used by the superior to influence and develop staff's attitudes, behaviours and actions.

A principal's broad pedagogical leadership covers both direct and indirect pedagogical leadership while also being interactive. The key aspect in a principal's direct pedagogical leadership is the principal's direct guidance and support for teachers' knowledge and learning both as part of everyday school operations and by means such as development discussions. A principal's indirect pedagogical leadership refers to the way in which the principal leads the school's key development processes, which indirectly guide and support knowledge and learning both among teachers and within the entire school organization. A principal's pedagogical leadership needs to be interactive so as to allow resources at different school levels to participate in pedagogical leadership as appropriately as possible. In this case, members of the school organization will form a community of learners, where the principal is a learner along with everyone else.

At an educational institution, it is possible to distinguish four key development processes:

- i. curriculum development;
- ii. development of the organizational culture;
- iii. creation of vision objectives and agreeing on strategies; and
- iv. specification of the basic mission.

It is essential to carry out the four above-mentioned functions as development processes rather than individual events and measures. It is also key to ensure that the development processes form an integrated whole. Furthermore, it is important to understand that development processes need to be led. It is precisely the leadership required by development processes that makes them key practical pedagogical leadership tools and channels of influence for a principal. It is important to recognize the fact that curriculum planning, implementation, evaluation and improvement process lies in the core of the principal's pedagogical leadership. The curriculum is the end result of this curriculum development work and provides a guideline for the school. The curriculum planning, implementation, evaluation and improvement process is work that requires broad interaction which involves both the need and the opportunity for the principal to exercise significant influence and leadership vis-à-vis teachers. As part of curriculum development, it is necessary to examine teaching staff's competencies, development needs and knowledge management. The curriculum development process highlights the roles of both teachers and the principal as learners and developing individuals. It is, therefore, possible to consider that the objective of internal school development is to create a community of learners (Print, 2013).

Management of the curriculum development process lies in the core of a principal's pedagogical leadership. If the principal does not lead the process, it will be led by someone else, which means that the principal gives up perhaps their most important pedagogical leadership tool. Since management of the curriculum development process cannot solely be technical management, it is also fair to say that a school

principal needs to be a solid pedagogue with teaching qualifications. Being a professional manager is not enough on its own for successful school management.

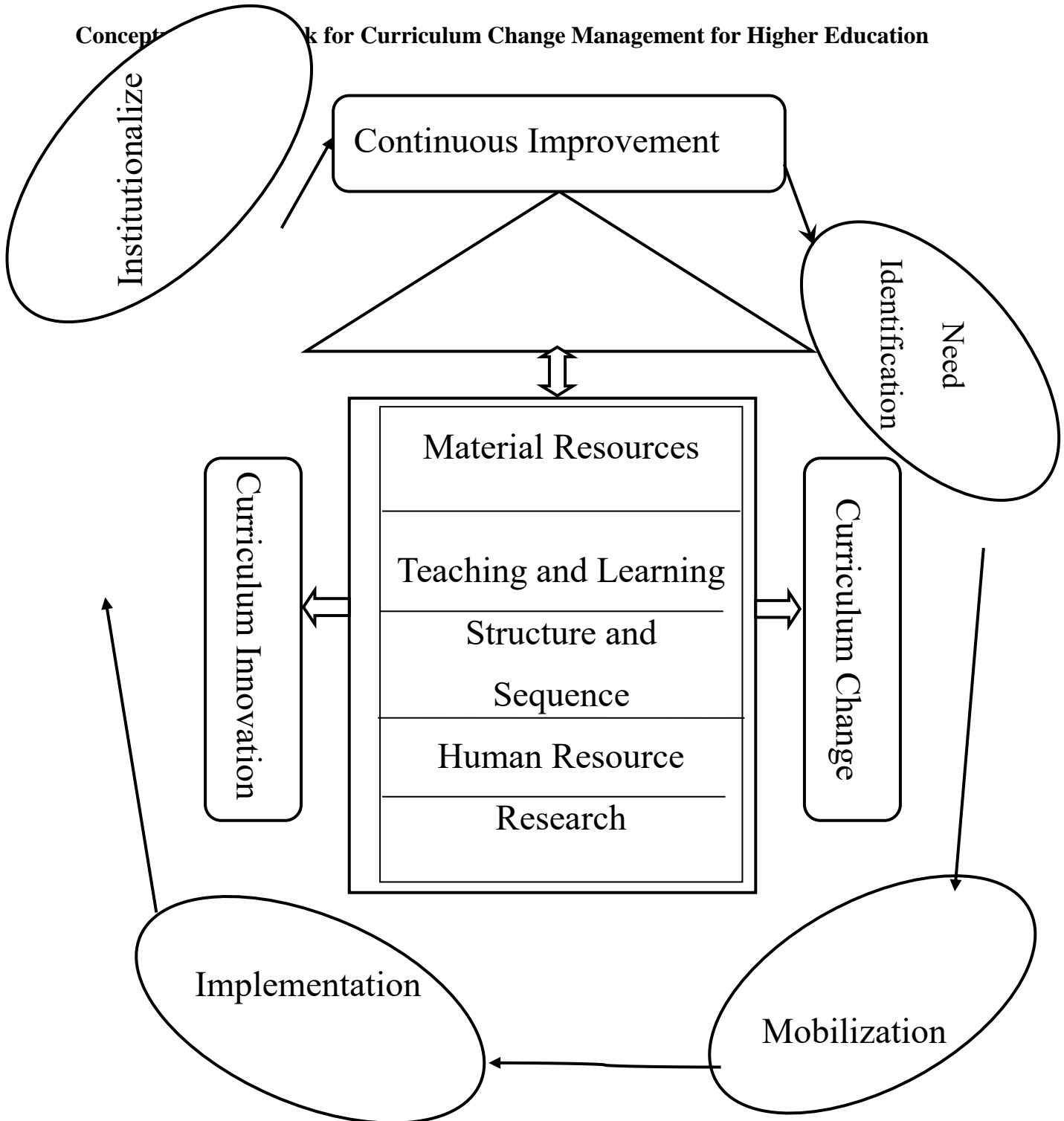
Elements for the conceptual framework

As a first step in the process of developing the framework, the literature describing curriculum change and design within higher education was searched and reviewed. The resulting frameworks (Davis 2011; Diamond, 2008; Herring & Bryan, 2001; Hubball & Burt, 2004; Morcke & Eika, 2009; Prideaux, 2007; Stark & Lattuca, 1997) were analysed and we identified the following characteristics.

- Based on scientific literature concerning (adult) learning theories, curriculum development, academic or educational development, instructional design;
- Clarifying both the distinction and relation between curriculum development as a whole and design of individual courses;
- Generic in its description of the curriculum so that it is usable for every discipline within higher education;
- Be useful in the design, revision and evaluation of a curriculum;
- Giving opportunities to every stakeholder (teaching staff, students, managers, representatives of the discipline and labour market,...) to discuss the curriculum from his own point of view;
- Easy to introduce via a short presentation, a metaphor or a clear schematic representation.

It was also observed that all frameworks met at least some of the characteristics and were taken to the next step in the analysis. Because of the impact of accreditation on curriculum change and development, the quality criteria used in several accreditation schemes were also included (Stensaker & Harvey, 2006).

Conceptual Framework for Curriculum Change Management for Higher Education



Source: Researchers' own construct 2018

We compared all components of the different frameworks. Similar components were aggregated into meaningful clusters, which were discussed until consensus was reached about their content and meaning. Our review revealed the following eleven elements for curriculum change and development. These are factors to be considered to ensure a meaningful curriculum change process.

- **The educational philosophy:** the description of the educational purposes and instructional philosophy that underlie curriculum decisions, reflecting the vision and mission of the institution - e.g. which learning theories underpin teaching and learning (Diamond, 2008; Stark & Lattuca, 1997; Morcke & Eika 2009).
- **The positioning of the curriculum:** encompasses the level (Undergraduate, Bachelor, Master,...etc.), orientation (strategic choices about content) (Diamond, 2008) and the strategic choices about the disciplines involved compared to similar curricula at other institutes. For this element ample description was found in literature, but our own experience and context told us that introducing the 'level' actually helps stakeholders to discuss if their proposed program is most suitable to result in a Bachelor, Master or other degree. Moreover, positioning its own curriculum against similar curricula regarding the disciplinary content enables to substantiate the choices made by the program.
- **The learning outcomes at the program level:** selection and integration of the knowledge, skills, and attitudes to be acquired by the graduates (Diamond 2008; Stark & Lattuca 1997). In accreditation schemes curricular outcomes are mentioned in terms of results judged against targets' (Stensaker & Harvey, 2006).
- **Structure and sequence:** all courses are sequenced and structured together to form a coherent program of study (Stark & Lattuca, 1997; Stensaker & Harvey, 2006) with specific attention to vertical and horizontal integration (Hubball & Burt, 2004).
- **Learning, teaching and assessment strategies** should be tuned to the educational philosophy, should enable students to obtain the learning outcomes and should be aligned between courses (Stark & Lattuca, 1997; Stensaker & Harvey, 2006).
- **The discipline, the research community, the labor market (with alumni) and the society** are all closely related to and influencing curriculum choices. It's important to take into account e.g. the needs of employers and recruiters, the expectations of society, new findings of the research communities, the accreditation requirements and those of the disciplinary associations (Diamond, 2008; Stark & Lattuca, 1997).
- **Institutional resources** include facilities for teaching, organisational infrastructure and technology, quality and quantity of teaching staff, their experience and expertise, staff/student ratio and financial resources (Diamond, 2008; Stark & Lattuca, 1997; Stensaker & Harvey, 2006).
- Policy includes departmental, institutional, regional, (inter)national regulation, organization and legislation (Stark & Lattuca, 1997; Oliver et al., 2008).

- Student characteristics that need to be considered are student selection, characteristics of incoming students, diverse background of students (previous knowledge, experience or degrees, ethnic diversity,...) (Diamond, 2008; Stark & Lattuca, 1997; Stensaker & Harvey, 2006).
- Resources for students include student guidance, student mobility and facilities for students/learning (Stensaker & Harvey, 2006).
- The individual courses that together form the program of study (Prosser & Trigwell, 1999, Biggs, 1999, Ramsden, 2003, Biggs & Tang, 2011, Elen, 2002).

Implication of the Framework to Educational Theory and Practice

Framework Description in Brief

The educational philosophy, the positioning of the curriculum and the learning outcomes constitute the ‘planned curriculum’, represented by a triangular box in the scheme. The three meta-concepts within are in close relationship to each other. The educational philosophy describes which learning theories underpin the choices in teaching and learning strategies to help student reach the learning outcomes. The learning outcomes are determined by the positioning or the scope that is chosen for the curriculum. The main box stands for ‘the aligned curriculum’. The conceptual scheme for course design (Elen, 2002) is placed in the middle of this box and is visualised in different layers, indicating that all courses are sequenced, structure and sequence and aligned learning, teaching and assessment strategies. They represent the most visible part (for every stakeholder) of a curriculum, the so-called program of study. Moreover, the arrow between the main box and the triangle box indicates the ‘planned curriculum’ which is guiding how individual courses are designed and how the different courses are structured and sequenced and aligned to each other. These two boxes (top triangle box and main central box) are ‘owned’ by the department or the group of teachers that deliver the curriculum, meaning that they take decisions about the (re)design process. All these stakeholders are influencing (and influenced by) the choices that departments make in defining their position/profile, learning outcomes and educational philosophy. Besides the main box in the center, all organizational or managerial elements are represented that influence the way courses are designed, sequenced or aligned: institutional resources, policy, student characteristics and resources for students. These components have to be taken into account by departments and program leaders in their curriculum decision-making.

Main Implication of Framework

We came out with five core elements for quality change and development of curricula

To cope with the complexity of working on curriculum related issues, five core elements of quality curricula change and development are proposed, which are intricately interconnected. Going through all components connected by a circle enables their alignment. Changing one of the components will influence the other connected components. Going through the circles also means taking into account the perspectives and agenda of different stakeholders and searching for the best answer or compromise. This focus on change was partly inspired by the ‘paths’ described by Stark and Lattuca (1997), illustrating how evaluation and adjustment operate in their curriculum model. These are the core elements.

1. **The quality circle of the planned curriculum:** By confronting the elements of the planned curriculum to the expectations of the influencing stakeholders, both new and renewed curricula can be planned or the plans can be evaluated. To plan or adjust a curriculum it is necessary to find out what the expectations from the labor market and society are for graduates in the discipline. Also the input from the associated research communities - being on top of the state-of-the-art knowledge - is essential. To position a program within the educational market it is necessary to compare the planned outcomes with equal or similar programs within the institute and abroad. The educational philosophy should be attuned to recent research on learning and teaching.
2. **The implementation of a curriculum:** This core element makes the link between the planned curriculum and the aligned curriculum. It investigates the way the intentions are realized. In an empiric way, the planned curriculum can be seen as a proposal that can be tested by gathering evidence on students' learning experiences (Stenhouse, 1975). Alumni can be asked if and in what way the planned learning outcomes were realized in the curriculum. In a similar way, faculty teaching in the Master program can appreciate the level of incoming graduated Bachelors. This circle focuses on the curriculum as a process (Stenhouse, 1975). It is about how students experience the sequencing in the learning process and assess the (learning) strengths and weaknesses of the program of study. A curriculum map is a useful tool to demonstrate the link among learning outcomes and their realization in courses or course modules, learning opportunities and assessment. Curriculum maps allow identifying actual or potential deficiencies in the curriculum through consultation of different stakeholders.
3. **The aligned curriculum:** The aligned curriculum consists of all courses of the curriculum which are ordered in a certain sequence (in function of content and capacity building, in years or semesters or phases of time) and are structured in core courses (obligatory), in optional modules or as elective courses. This reflects a progressive curriculum (Knight 2001). Skills and attitudes need to be acquired through different courses with an ever increasing complexity. In a coherent curriculum learning trajectories indicate how students transfer learning and deepen their understanding going from one course to the next. Alignment between courses is necessary to balance teaching, learning and assessment strategies in such a way that the intended learning outcomes can be realized (Litzinger et al. 2011).
4. **The aligned course:** This quality circle is reflected in the scheme for instructional design, which was first described by Elen (2002). As he mentioned it "is a general concept that promotes if-then reasoning's" focusing the instructional design process on the constructive alignment (Biggs 1999, Fink 2003) of the different components of a course (learning objectives, learning activities, student characteristics, evaluation strategies, the learning environment and context). In an effective educational setting, these components are coherently and consistently implemented and aligned to each other.
5. **Actors acting on the curriculum:** Although, the scheme itself does not focus on the actors involved, several stakeholders are connected to the curriculum and integrated in the scheme:

researchers, alumni, employers and the society are represented on top of the scheme. These stakeholders will be consulted on their ideas, experiences and needs when the planned curriculum is discussed by teachers and students. On the other hand alumni will, when employed, further explore innovations developed by research which they studied during the curriculum, in this way enhancing the society. Furthermore, students, faculty, teaching assistants engage in learning experiences throughout the aligned curriculum. They draw upon these experiences to rethink and optimize the planned curriculum (Oliver et al. 2008, O'Neill 2010). In this process of optimization, the role of the students is crucial: as they are the key actors in experiencing the program, their feedback on the different components and their relations is essential. Furthermore, program leaders and policy makers on all levels (departmental, institutional, regional, national, international) influence the planned as well as the aligned curriculum. They envision the contextual factors influencing the curriculum, manage the curriculum and plan and coordinate quality development initiatives.

Conclusions

In order to understand the social, political and economic changes to be accommodated within the Ghanaian society, the process of curriculum change is relevant. The curriculum change process includes the phases of need, mobilization, implementation and institutionalization. The need phase for curriculum change manifests in expressions of concern or dissatisfaction with the current curriculum and curriculum practices, which may come from a variety of sources such as teachers, learners, parents, administrators, employers, educational systems or a combination of them. It is, therefore, to reiterate that the school management team has the responsibility of managing the implementation of curriculum change on account of societal demands forthcoming from the political and socio-economic terrains. To be able to succeed in this, school management teams should know what the major roles are that they need to play to ensure that curriculum change is implemented. From the empirical investigation it became clear that school management team participants are sufficiently knowledgeable on what their roles and responsibilities, pertaining to curriculum change management, are. Considering the major hampering effects of successful curriculum change management, namely inadequate classrooms and teaching facilities and a need for the continuous training of staff, school management teams, as the responsible and accountable facilitators of the implementation of curriculum change, should be sensitized to a gradual proactive addressing of the persistent problems. This could contribute to a slow but steady increase of contextualized success with the management of the implementation of curriculum change.

Future Directions

In order to improve the role of the school management teams in managing curriculum changes at the second cycle institution level, the following recommendations are made.

1. The Ministry of Education should find ways to provide schools with sufficient classrooms and teachers to ensure that school management teams are in a position to properly manage the implementation of the changed curriculum successfully.
2. School management teams, in collaboration with school governing bodies, should steer vigorous fundraising attempts in aid of an adequate financial position, to enable schools to purchase the required additional teaching and learning resources needed for self-discovering activities to ensure a successful change of the curriculum for quality education delivery.
3. The Ministry of Education should adequately provide schools with the basic teaching and learning resources needed for quality education delivery in order for school management teams to manage the implementation of curriculum change successfully.
4. The Ministry of Education in conjunction with the Ghana Education Service should ensure that the practice of curriculum change is highly decentralized to reflect local concerns. Thus, the decentralization of the process would be tailored towards the local needs of the area. This would make education more meaningful and relevant to students.

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