

Constraints to the Implementation of the Competence Based Approach in Government Technical Colleges in Fako Division and its Effects on the Attainment of Vision 2035 of an Emerging Economy for Cameroon

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How to cite this paper: Ngwa Marcus Suh "Constraints to the Implementation of the Competence Based Approach in Government Technical Colleges in Fako Division and its Effects on the Attainment of Vision 2035 of an Emerging Economy for Cameroon"

Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470,

<https://doi.org/10.31142/ijtsrd28044>

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IJTSRD28044



ABSTRACT

The purpose of this paper was to investigate constraints to the implementation of the competence based approach (CBA), and effects on vision 2035, as well as what teachers, principals and chiefs of work proposed as solutions to implementation problems. The major issue in this study was to find out whether the characteristics of the CBA constraints the implementation. The survey design was used. The simple random sampling and clustered random sampling techniques were employed to obtain a sample of 10 principals, 19 chiefs of work and 129 teachers giving a total of 158 from a population of 509 government technical teachers, chiefs of work and principals in the five technical colleges that were used as sample in Fako division. Data was collected through the use of questionnaire comprising 46 items all closed ended and 2 open-ended. Data from closed-ended and open-ended items were analyzed using the statistical package for the social sciences (SPSS) and the technique of content analysis respectively. Findings from the data analysis were presented using frequencies, percentages and means. The findings revealed that the CBA was preferred to other teaching methods in spite of its numerous constraints. As such, Cameroon can achieve vision 2035 if CBA is properly implemented. Some recommendations were made to improve on the practice for example, teachers need to be continuously trained through seminars/workshops and regular follow-up by principals and pedagogic inspectors to ensure the CBA is properly implemented.

Keywords: Constraints, Implementation, Competence Based Approach, Government Technical Colleges, Fako Division Effects, Attainment, Vision 2035.

INTRODUCTION

One of the major problems in technical education in Cameroon, as in some African countries, is adequacy of the number of students rather than the quality and relevance of the system of training to economic needs, restructuring and funding that are needed. Without an objective for technical education, no clear training objectives are possible. This is evident in the high number of students who repeat classes or even dropout from school. Those who graduate from our technical colleges cannot create jobs for themselves or are employed by big companies to work as technicians. {Many studies including (Ngundam and Tanyi, 1999) cited in Educational Development in Cameroon (1961-1999)}. This high rate of dropout and unemployment imposes enormous cost to the technical educational system and the society. It also has negative effects in the efficiency of the school system. Since technical education is the bedrock of development of any nation, it is obvious that if technical schools have to contribute to the development of the nation, development of the required human resources would require improving the technical education of students. In this regard, the Ministry of Secondary Education decided to put in place a number of strategies including; competence-based teaching and automatic promotion. This was done to solve

the problem of high repetition and dropout rates. In 2008, the competence based approach (Ministry of Secondary Education MINESEC, 2008) was introduced in the secondary technical education sub-system. The goal was to address perceived weaknesses in the institutional practices that were more teacher centred than student-centred.

Good practice in any educational change requires regular monitoring of the implementation process in order to identify and remove constraints, which can have the potential to hurt and frustrate teachers and can even become impediments to future changes or innovations. Constraints cannot be removed unless they are empirically investigated. Identification and removal of constraints has enormous positive academic, educational and organisational benefits.

The CBA is expected to change traditional conceptions of the role of teachers and students. Teachers are no longer expected to be regarded as sole authorities of knowledge, but as facilitators or guides during the teaching-learning process. On the other hand, students are supposed to be more active participants in their education. Against the backdrop of the expectation of the competence-based

approach and in keeping with good practices in the area of the management of educational change, this study seeks to investigate constraints to the implementation of the competence-based approach as well as the effects on vision 2035.

STATEMENT OF PROBLEM

Introduced into the technical education sub-system in the year 2008, the competence based approach (CBA) was aimed at addressing limitations of instructional practices by adopting practices that were more practical and productive in technical education. It was widely applauded by educators and policy makers as the way forward towards revitalizing the technical education sector in order to respond to challenges of quality assurance and other pedagogic problems plaguing technical education. For example, it was supposed to strengthen the ability of students and make them more efficient in productive skills (MINESEC, 923/2008). Since its introduction, the literature review reveals no empirical studies aimed at monitoring and evaluating the implementation process. Good practice requires that the implementation of an innovation be regularly monitored and evaluated in order to identify implementation constraints and take appropriate actions to address them.

The implementation of an innovation has the potential to hurt or help an educational system or organisation. The absence or lack of information related to implementation and impact of the competence-based approach does not augur well for the technical education sub-sector, thus having very negative effect on vision 2035 of Cameroon becoming an emerging economy. This paper seeks to fill this vacuum by empirically investigating the extent to which the competence based approach is being implemented from the perspective of teachers, chiefs of works, principals and regional pedagogic inspectors. Furthermore, an attempt is made to document teachers', chiefs of works' and principals' perceptions of implementation problems or difficulties as well as their suggestions for addressing them.

Specifically, this paper intended to investigate characteristics of the competence based approach (CBA) that act as implementation constraints.

BACKGROUND

According to the United Nations Educational and Cultural Organization (UNESCO), (2002), education offers an answer to many of the world's problems. Education is generally considered as providing essential foundations for the socio-economic and cultural development of every country (Mpka, 1997; UNESCO, 2002). For example, according to Mpka (1997) educational endeavours would be largely wasted unless what is taught is relevant and responsive to contemporary society. In this regards, the president of the republic, during a council of Ministers meeting held in Yaounde in 1993, empowered the Minister of National Education to organise a national forum on education. The goal of the forum was to make proposals for the formulation of a new educational policy for Cameroon which was to involve a new educational system that could meet challenges of the day and those of the 21st Century (Mbella Mbappe, 1995, in Ndongko & Tambo, 2000: 258).

In 1995, the national forum on education was organised, during which the speeches of various speakers revealed the

inefficiency of the educational system. Issues of accountability, decentralization, relevance and transferability of learning to address real life problems were raised. After an analysis of the problems encountered by the Cameroon's educational system, the forum concluded that the system of education trained job-seekers rather than job-creators.

Based on the different papers presented, it was evident that there were expectations that the national forum on education will lead to fundamental changes in Cameroon's educational system. For example, the development or formulation and implementation of new syllabuses and teaching methods that were relevant to the present day technology and cultural needs of Cameroon, among others (MINEDUC, 1995). The introduction of the competence based approach (CBA) falls in line with the recommendations of the National Forum of Education. The recommendations of the Forum became the substance of Law N^o. 98/004 of April 14, 1998 to lay down guidelines for education in Cameroon. According to this law, the general purpose of education at the levels of primary and secondary education shall be to train children for their intellectual, physical, civic and moral development and their smooth integration into society with its prevailing economic, socio-cultural, political and moral factors. With the introduction of the 1998 law, the pedagogic service of the Ministry of Secondary Education embarked on a careful examination of the limitations in the existing teaching methods in primary schools. They observed that in primary schools, the levels of thinking primarily sought are memory, understanding and application (MINEDUC, 2006). They linked this to the traditional institutional practices that were predominantly teacher centred.

The guide for primary school head teachers produced by the inspectorate general of pedagogy for nursery, primary and teacher education outlines the following characteristics of the traditional teaching methods: the teacher is considered as the sole custodian of knowledge; he/she considers pupils as empty vessels that need to be filled with knowledge. This approach does not challenge learners to think, discover, analyze, conceive new ideas, evaluate situations or make decisions or choices. Furthermore, it does not encourage learners to be responsible for their own learning, nor does it encourage individual initiative or the spirit of enterprise which are all objectives of primary education in Cameroon. The pedagogic service also observed that improving the level of intellectual development requires the higher levels of reasoning: analysis, synthesis and evaluation, not just memory, understanding and application. Pupils had to be encouraged to think inferentially (MINEDUC, 2006). It is within this framework that the pedagogic service of MINEDUC emphasizes teaching strategies that promote thinking. This orientation generated a popular phrase, the new pedagogic approach (Tambo, 2000: 316). The competence-based approach (CBA) as a child-centred approach to teaching is not really new. "The expression competence based approach can be understood as a slogan adopted by MINESEC to mobilize teachers to shun outmoded practices and embrace pedagogic renewal (Tambo, 2003: 316)". Tambo adds that emphasis on teaching for thinking can be accepted as new, mainly because rote learning has been dominant in many Cameroonian technical school classrooms.

There are models of change that can assist educational institutions, encourage and support their teaching staff with the process of adopting and implementing change in schools. One of such model is Fullan's (1982) model of change process. Fullan (1982) asserts that the change process takes place in three stages: initiation or adoption, implementation, and institutionalization. He points out that knowing about the challenges and problems, as well as the success factors associated with each stage of change process, can increase the likelihood of successful implementation of change. This study which seeks to find out constraints to the implementation of the competence based approach (CBA) and effects on vision 2035, in technical colleges in Fako Division, finds the model useful because it provides guidelines about how to implement a change. According to Fullan, many educational innovations have failed to yield intended results because of inadequate attention to factors related to the various stages of change process.

According to Fullan (1982), the purpose of educational change is to help schools accomplish their goals more effectively by replacing some programmes or practices with better ones. The competence based approach is an innovation in Cameroon technical colleges which aims at replacing the traditional teaching methods with methods which enhance the creative development of inferential thinking and productivity. It places the learner at the centre of teaching-learning by appealing to his/her reasoning in the classroom problem-solving situation (Fonkeng, 2004).

Implementation is defined as "the process of putting into practice an idea, programme or set of activities new to the people attempting or expected to change. Fullan (1982: 54). Change in practice entails variations in some aspects of educational beliefs, teaching behaviours and use of new materials. If the competence based approach is to bring about change in practice, it will require effective implementation; which depends on the identification and elimination of constraints to implementation.

Constraints refer to the limiting factors that should be taken into consideration or account when implementing change. People and the system can impose constraints on the implementation of innovations. People can do so by resisting changes they do not like, or by neglecting to do what was supposed to be done during a phase of the change process. The cultural practices of a people or work group can also impinge on implementation. Based on this, the following implementation factors emanating from Fullan's (1982) framework on change will be examined to see whether they are constraints to the implementation of the competence based approach in technical colleges in Fako Division: constraints related to the characteristics of the change, constraints emanating from the characteristics of the local school system, and constraints emerging from school level factors.

Fullan (1982) and Rogers (1995) have found the characteristics of the change as related to implementation. Fullan identified need, clarity, complexity, quality and practicality as major characteristics of change which influence implementation. Need, clarity, quality and practicality of materials are positively correlated with implementation, while complexity is negatively correlated with implementation. This is to say that, if implementers do not perceive the new programme as addressing a priority need, if the goals and means of implementation are not made

clear, if the innovation is complex in terms of the extent of change required and if the innovation materials lack quality and are not practicable, not much change in practice will occur.

Fullan (1982), Cawelti and Protheroe (2001), Elmore and Burney (1997), and Tongneri and Anderson (2003) view the characteristics of a local school system as determining factors of whether change gets implemented or not. Fullan (1982) identified some characteristics of the local college system which affect implementation: the history of innovative attempts, the adoption process, district administrative support, and staff development and participation. He associates effective implementation with the following: a history of successful innovative attempts, an adoption decision that is participatory and problem-oriented, district administrative support in the form of allocation of resources to colleges, making visits to colleges, provision of training opportunities for teachers, staff development that is continuous during the course of implementation and involves a variety of formal (for example, workshops, seminars) and informal (for example, teacher-exchange) components.

Technical education is the most important means by which the quality of a country's development is determined. With the increasing realization of the importance of technical education, international, regional and even national authorities have continued to reiterate the need to make technical education more accessible, efficient and productive. By improving quality and relevance and ensuring equality. The provision of technical education is one of the fundamental rights (UNESCO, 2002). The achievement of universal education and especially technical education is also one of the Millennium Development Goals (United Nations Children's and Education Fund, UNICEF, 2003). At the regional level, the African Union's Second Decade of Education for Africa (2006) has as one of her objectives to significantly raise educational achievements (access, quality, efficiency and relevance). Cameroon's determination to improve on quality is also manifested in the provisions of the 1998 law to lay down guidelines for education in Cameroon which states that "The state shall guarantee the right of every child to quality education". Within this context, the pedagogic service of MINESEC opted to adopt a more efficient teaching approach (CBA) "Competence based approach", to improve on the quality of technical education. The need for reforms has been a consistent theme within Cameroon's educational policy, emphasised in the report of the 1995 National Education Forum and the Draft Document of the Sector-Wide Approach to Education.

Competence-Based Education

Fonkeng (2004: 302) defines competence-based education as teaching on the basis of competences defined in advance, with respect to existing programmes and the requirements of the general system of evaluation and certification. Fonkeng refers to a competence as a manner of reacting efficiently and effectively in a complex situation using elementary knowledge. Competence is a coordinated group of knowledge, know-how and skills displayed in a given situation (Amin, 2004). The mastery of a competence requires the acquisition of this knowledge and know-how. The N.P.A. relies heavily on problem solving and provides opportunities for acquiring this coordinated group of knowledge.

Automatic Promotion

Amin (2004) refers to automatic promotion as promotion that is not based on performance, rather, it is a policy option which makes children change from an inferior class to a superior class irrespective of the child's average score. The Cameroon Primary System is divided into three cycles. Cycles I, II and III. Cycle I embodies classes I and II, Cycle II embodies classes III and IV, while Cycle III embodies classes V and VI. Automatic promotion is within a cycle and not between cycles. The objective of automatic promotion is to reduce the number of promotion examinations and the number of repeaters, thus reducing the rate of educational wastage. It caters for underachievers through compensatory / remedial teaching.

Factors Affecting the Implementation of Educational Change

Through his intensive research work, Fullan (1982) has identified a number of interacting factors that affect the extent of implementation of educational change. Whether change in practice will be accomplished will depend on whether anyone or more of these factors is working against or supporting implementation. He organizes these factors into four main categories: characteristics of the change; characteristics of the local school system; school level factors; and factors external to the local school system. This study reviews the first three.

Characteristics of the Change

Need, clarity, complexity as well as quality and practicality of materials, are major aspects pertaining to characteristics of a change identified by Fullan (1982) as having the potential to affect implementation.

Need

Fullan (1982) defines need in terms of extent to which the innovation addresses a priority need as perceived by those who are to implement the change, Huberman and Miles (1984), Rosenblum and Louise in 1971 (Cited in Fullan, 1982) contend that the importance and perceived relevance of an innovation significantly affects the implementation process. Welch in 1989 (Cited in Fullan and Steigelbauer, 1991) assert that need is determined by teachers in terms of how the innovation will impact them personally and impact students' growth. Implementers of an innovation must therefore believe that the needs being addressed are important. They need to see it as contributing to students learning before they would "buy in" to the change. If teachers in particular do not see a need for an advocated change, change in practice will not occur. But if they perceive a need for the innovation, they become more committed, enthusiastic, and actively engaged in the change process. The major reason that led to the adoption of the N.P.A. was the need to ensure the development of inferential thinking in children. If teachers believe that the old approach was adequate and was helping them achieve this goal, then implementation of the N.P.A. will not be successful. The adage, "if it isn't broke, don't fix it", points to the importance of needs assessment. It would be a waste of resources to invest in an innovation to reach goals which are already currently being met.

Several studies have been done on how to assess and prioritize needs. Smith and Rogan (2005) specify three models that can be used to conduct needs assessment: the

problem model, the innovation model and the discrepancy model. Needs assessment using the problem model begins by determining whether really there is a problem. This requires asking questions and getting the right answers from the right people. These questions include the following: who says there is a problem? Why do they say there is a problem? Do others perceive it to be a problem? Who does not agree that there is a problem? Why? Who is affected by the problem? In what way and how seriously does the problem affect the mission of the school? If a problem really exists then the next step to take is to clearly define it and identify and choose among alternative courses of actions to solve the problem. Using the discrepancy model, needs assessment begins with listing the goals of the instructional system, determining the gaps between "what is" and "what should be". Thereafter, gaps are prioritized according to agreed upon criteria. Lastly, it is important to determine which gaps are instructional needs, because instructional may not be the solution to all performance problems. Smith and Rogan, contend that to obtain an adequate picture of the issues identified in these models, many sources including: students, teachers, administrators, parents should be considered. Rosenblum and Louise in 1971 (Cited in Fullan, 1982), declare that implementation of any new programme is not likely where some of these sources, especially teachers, are ignored. This is confirmed in their study where they found that successful implementation of school projects depended on the degree to which there was formal recognition within the school system of unmet needs. Involvement of teachers in the needs assessment process increases their feelings of ownership and commitment to the change. Lack of involvement, on the other hand, results in lack of trust in the change initiators, and thus increases teachers' resistance to change.

Clarity

The clarity of an innovation refers to the extent to which those implementing the innovation are clearly informed about its essential features (goals and means of implementation) (Fullan, 1982). Charters and Pellegrin (1973), Miles (1978), Simms (1978), and Weatherley (1979) all cited in Fullan (1982) and Hord (1992) have found clarity of goals and means of implementation as central to effective implementation of innovations. Hord (1992) asserts that clarity is important for developing a shared vision. Vision refers to mental pictures of what the school might look like in a changed and improved state (Mendez-Morse, 1992). A shared vision ensures a common set of goals, expectations, and commitment to change. It also provides guidance and direction for the implementers of any innovation. If a shared vision is to be built, leaders of change must encourage participation in vision development (Hill, Wise and Shapiro, 1989 cited in Fullan and Stiegelbauer, 1991). From their studies of six urban high schools, Louis and miles (1990) report that effective school leaders, those who realize change in their schools, are also able to help people develop images of "how to get there", so that action is directly tied to the vision and ownership is developed. When teachers and others involved in implementation are not clear on what they are being asked to do, and what the change is supposed to look like in their classrooms, it causes great anxiety and frustration.

Complexity

The complexity of an innovation can be determined in terms of its difficulty, skills acquired, extend of alteration in beliefs

and teaching strategies required and use of new materials (Fallan, 1982). He added that an innovation that requires Substantial rather than trivial change, new mindsets and new behaviours is complex. Berman (1980), McLaughlin (1977), Rosenblum and Louis (1979) all cited in Fullan (1982), have found that complex changes are more difficult to implement than simple ones. This is because complex changes often increase the problem of lack of clarity which affects implementation negatively. More so, complex changes require extra effort from the implementers, which they are usually not willing to invest. According to Rosenblum and Louis (1979), implementation of a complex change will depend on whether it is introduced all at once or gradually. To minimize the problem of lack of clarity, which is often associated with complex changes, they suggest that complex changes should be broken down into specific components and implemented incrementally.

Quality and Practicality of Programme Materials

Quality changes are those that address salient needs which fit well in the teachers' situation, are focused, and include concrete how-to-do-it possibilities (Doyle & Ponder, 1977, cited in Busick *et al.*, 1994). Some research findings (Emrick & Peterson, 1978; Fullan & Stiegelbauer, 1991; Kormos & Simms, 1978 cited in Fullan, 1982), state that quality and practicality of programme materials significantly influence change in practice. In their studies Kormos & Simms (1978) found that curriculum guides that were clear in terms of goals and content, but did not clearly specify procedural content were not helpful in the classroom. Rather, such materials tended to confuse and frustrate teachers. On the other hand, programme materials that were well organised, comprehensive, detailed and address "how-to" concerns were found to be more effective at the implementation stage. "Teachers want, need, and benefit from tangible, relevant programme materials which have been produced and tested in real classroom situations" (Fullan, 1982: 60).

According to Fullan (1982), poor quality and impracticality of materials maybe the result of the adoption decision, or when materials are not developed by practitioners. When adoption decisions are made on grounds, political necessity, planning is focused more on issues of compliance rather than issues or problems of implementation. Consequently, there is usually no follow-through to ensure the development of quality materials. Even when adoption decisions are made on grounds of perceived needs, provision for preparation time must be made to generate quality materials, and the materials should be produced by practitioners. Fullan (1982) stresses the need for local material development or adaptation, without which the material produced, may not address the real needs, context and cultures into which they are introduced. Local materials development also provides teachers with the feeling that their professional judgement is valued, provides them with a sense of programme ownership and with an opportunity to learn by doing. It also promotes clarity and the commitment necessary for effective implementation.

Characteristics of the Local School System

Fullan (1982) defines characteristics of the local school system in terms of the planned and unplanned events and activities in the setting in which people work. Elmore & Burney (1997), Cawelti and Protheroe (2001), Snipes, Doolittle and Herlihy (2002) and Togneri and Anderson

(2003) point out that the characteristics of the local system may constrain or favour change. The school has the responsibility to see into effective implementation of change. Schools vary in their capacity to implement change and consequently, some school districts are more effective at managing change than others. If a school district is poor at launching new programmes or at bringing about change, change in practice would not occur. Resources for ongoing assistance during implementation are effective in bringing about change. These resources are administered by the government through the school district to schools. Effective implementation would depend on the wise use of these resources. Fullan (1982) outlines some factors which make for productive change attempts at the school district level: the history of innovative attempts, the adoption process, central administrative support and staff development.

History of Innovative Attempts

The history of innovative attempts simply refers to the experiences (positive or negative) that teachers or others have had with previous innovations in the district. Corbett, Dawson and Firestone (1984), Fullan (1982), Goldman and O'Shea (1990) assert that the legacy of previous innovations, by their influence on teachers attitudes, values and perceptions may act as either a barrier or a facilitator of change. According to Goldman and O'Shea (1990), a system paranoia that says "There they go again" or "things cannot change" creates barriers to change, because it affects the degree to which teachers are prepared to put in additional effort and time to accomplish any new change regardless of its merits. Corbett, Dawson and Firestone (1984) and Fullan and Steigelbauer (1991), note that cynicism, apathy, scepticism, wasted time, feelings of incompetence and lack of support reflect negative experiences while psychological gratification reflects a positive experience which thus increases the likelihood that subsequent new programmes would be well received by teachers.

The Adoption Process

"The adoption process consists of the processes which lead up to and include a decision to adopt or proceed with a change" (Fullan, 1982). Berman and McLaughlin in 1978 (cited in Fullan, 1982), Corbett, Dawson and Firestone (1984) and Rogers (1995) argue that there is a relationship between the adoption process and implementation of innovations. Fullan (1982) notes that the decision to adopt a new programme may be done in a participatory or an authoritarian manner. He argues that while participatory adoption decisions may not always guarantee successful implementation, however, it can increase the likelihood of success. Authoritarian adoption decisions may on the other hand result in ineffective implementation because such changes may not be compatible with the end of the district. This is further justified by the fact that the more certain planners think that they are correct, the less likely they will be to take the time necessary to set up procedures for implementation. Implementers on their part may show little or no commitment by not investing extra time, effort and energy needed to make programmes for which they have little responsibility. It is important to note that having good ideas is good, but not enough. Good ideas must be accomplished by the establishment of a process that would allow the use of the ideas.

Another important implementation factor is the motivation underlying the decision to adopt a change. According to

Berman and McLaughlin in 1978 (cited in Fullan, 1982), opportunistic and bureaucratic adoption decisions are followed by limited implementation. This is because they fail to generate support from other stakeholders within the system. On the other hand, problem-solving oriented adoption decisions are likely to be taken more seriously because more attention is paid to implementation followed by effectiveness and commitment.

Administrative Support

Administrators are expected to provide support by setting the conditions necessary for bringing about change. Emrick and Peterson in 1978, Rosenbult and Louis in 1979 (cited in Fullan, 1982), Snipes, Doolittle and Herlihy (2002) and Togneri and Anderson (2003) have found district administrative support as a potentially positive force for educational change. District administrators' support in the context of this study can be likened to the support provided by educational authorities who are all charged with the responsibility for overseeing educational policy and programme implementation at different levels within the region. These include: the regional delegate of secondary education, the regional coordinator for technical education, the regional pedagogic inspectors, and the divisional delegate for secondary education, the sub-divisional inspectors, and the divisional pedagogic inspectors. They can demonstrate their support by providing relevant material resources to schools, providing in-service training, visiting schools to see what is happening, providing one-to-one technical help and providing opportunities for peer interaction. Their level of support provides a signal to implementers as to how seriously they should take the change, and to what extent it is to their self interest to work hard to achieve the programmes' objectives. Lack of district administrative support may result in inability to identify and address implementation problems. In such a situation, change activities may not make much progress. On the other hand, when support is readily available, teachers show interest and commitment and change stands a better chance of being implemented.

Staff Development and Participation

Staff or professional development refers to any experience that enlarges a teacher's knowledge, skills, appreciation, and understanding of his or her work (Glickman, Gordon and Ross-Gordon, 1998). Staff development and implementation of innovations are intimately related (DeBoise, 1984; Elmore & Burney, 1997; Boyd, 1992). They who believe that, even if people understand and accept a change, a major impediment to successful change is lack of relevant capacity in the domains of knowledge, skills and attitudes. Consequently, capacity building has been identified as one of the prerequisite of successful implementation of change.

Staff development needs to be focused and clearly related to school improvement goals. Successful staff development requires identification of the needs of the staff for training and development. Fullan and Stiegelbauer (1991) referencing Loucks *et al.* (1987) state that staff development that builds on collegiality, collaboration and solving the real problems of teaching and learning brings forth the strength within the staff, instead of just challenging them to measure up to somebody else's standard. Recent research studies on CBA criticise in-service programmes that are limited to "one-shot-deals" and whose topics are selected by people other

than those for whom the in-service is intended. Therefore, in-service programmes should address the needs and concerns of the implementers, provide follow-up activities, and pay attention to the different needs of trainees. According to Louis and Miles (1990) effective staff development is that which is continuous during the course of implementation and involves a variety of formal (for example, workshops) and informal (for example, teacher-exchange) components. Other researchers on CBA holds that staff development should be led by teachers, for teachers and on their campuses. The reason given for this is that, when teachers define the content and themes of these sessions, communication, assistance and empowerment occur. School leaders who assist implementers with the new practices, whether principals of schools, special teachers or central administrators, also need training for their new role.

Teacher Participation in Decision-Making

Berman and McLaughlin in 1991 (cited in Geijsel *et al.*, 2001) have found teacher decision making during implementation to be very crucial for successful implementation of innovations. Berman and McLaughlin in 1978 (cited in Fullan, 1982) state that teachers who are closest to the problems and progress of project activities are in the best position to suggest remedies for perceived deficiencies. Moreover, where project activities and objectives reflected significant teacher input, the staff was more likely to invest the considerable energy needed to make the project work (p. 68).

The importance of teacher involvement in implementation decision is evident: it improves on the quality of the decision; it makes teachers feel that their expertise is being acknowledged and increases their commitment. Where teachers' participation is limited there is limited agreement on the path of teachers with respect to important decisions. Limited participation is also an indication that the objective meaning of change is not being considered (Fullan, 1982).

Implementation Outcomes

Fullan (1982) notes that there are four possible implementation outcomes, and thus provides a rationale for close examination of educational change. Figure 2.2 depicts the possible implementation outcomes.

Table: Types of Implementation Outcomes of Adopted Changes

		Actual Implementation of the Change	
Value and technical	Yes	I	II
Quality of change	No	III	IV

Source: Fullan (1982)

According to Fullan (1982), "Actual implementation" refers to whether or not there has been a real change in practice, while "Value and technical quality" incorporates two factors related to who benefits and whether the programme has been technically well developed. Considering the implementation outcomes above, Type I represents the actual implementation programme which is not valued. In Type II, a valued and technically sound programme is not being implemented for some reasons. Type III represents actual implementation of a change which is neither technically well developed nor valued. In Type IV, a poorly developed change which is not valued is being rejected in

practice. The rejection in Type IV saves time, energy and the frustration that would have occurred in the course of attempting to implement it. Type I is the one most likely to lead to improvement.

Fullan (1982) claims that specific educational change should be considered on the basis of who benefits, technical soundness of the programme or idea and potential results in change in practice. This is necessary because there are many reasons other than educational merit which influence decision to change among which are: political or personal reasons, appeasement of community pressure, to appear innovative, to gain more resources. No matter how desirable goals and good intentions may be, the importance of the plans and details of implementation must be attended to. The history of innovations has shown that most innovations were never implemented in practice because people were unclear about how to put the new programme into practice. Educational change involves a theory of change relating to what should change, and a theory of changing concerning how to bring about change. Fullan (1982) argues that developers of innovations have been more concerned about the theory of change, to the neglect of the theory of changing. Concern about implementation is very important because it involves real change through people. These people are expected to give up what they know well and begin the struggle to master new skills and knowledge, to try out and manage new practices, and ultimately to shift their belief structure. This makes the implementation phase of change exhilarating, exhausting, frustrating, and filled with uncertainty. Concern about implementation helps to give a better clarity about what factors need to be addressed and how to address them if change is to occur.

The Concept of New Pedagogic Approach

During the 1995 National Forum on Education, it was observed with dismay that there was poor exploitation of the thought process, especially at the primary school level. It was pointed out that this was due to the fact that teachers continue to fill the brains of the child rather than mould it. MINEDUC also pointed out that teaching at this level emphasizes memorisation, comprehension and application over the higher levels of analysis, synthesis and evaluation. The translation of recommendations of the National Forum on Education and the 1998 Education Law into action by the pedagogic service of MINEDUC led to the birth of the new pedagogic approach in 2000. According to the teacher's manual on the teaching of mathematics in English speaking primary schools in Cameroon (2001), the new pedagogic approach implies the use of learning strategies which will lead to the acquisition by the pupils of Required Educational Minimum Resources (R.E.M.I.R), and could be used by them to face everyday real life situations. It is neither a technique nor a method, but rather, a set of pedagogic practices which places the child at the centre of teaching / learning. The child no longer plays the role of a spectator in teaching / learning. He/she expresses his or her opinion about what he/she is learning. However, the teacher remains the regulator of discipline in his classroom. The NPA emphasizes the development of inferential thinking. It entails developing inferential thinking in the child by helping him to be able to distinguish facts and ideas, state hypotheses and verify them before drawing conclusions. In this regard, MINEDUC has provided a methodology for each discipline that permits the development of inferential reasoning in the classroom. This methodology progresses through the following stages:

- The problem situation
- Research
- Analysis, and
- Synthesis (NAP, 2006).

The problem situation is the first stage whereby a pupil is placed under a condition of finding out. The problem could be defined by difficulty to overcome a task to be accomplished. This has an advantage of instilling in the learner a desire to learn. The research stage is the stage at which the learner looks for possible ways of understanding and solving the problem. Analysis is a stage during which knowledge is split down. It can take the form of comparison of facts, demonstration, an investigation or justification. Synthesis is a stage that brings together all the knowledge gathered during the research and analysis, so as to make a summary of what has been learned.

NAP (2006) outlines the following advantages of the New Pedagogic Approach.

- It enables pupils to develop their oral expression.
- It initiates pupils into research in a situation where he/she asks him/herself questions when confronted with a problem.
- It develops in the child logical thinking.
- It helps develop a sense of creativity in pupils.
- It makes pupils more critical.

The NPA attempts to tune teaching to the needs of individual learners by incorporating the following teaching strategies:

- Compensatory / remedial teaching.
- Competence-based teaching
- Automatic promotion

Compensatory / Remedial Teaching

The idea of compensatory / remedial teaching is that more teaching time, resources, a variety of teaching methods and learning techniques be made available to underachieving or slower pupils so that they can succeed as much as the faster ones (Tambo, 2003: 307). Compensatory teaching ensures that the learning programme is adjusted to the capacity of the learner, so that learners are able to learn at their pace, thus guaranteeing equal opportunities to all learners to succeed in school. The strategies in compensatory / remedial teaching proposed by Biehler and Snowman (1986), cited in Amin (2004) include group work, individual teaching, and materials for extra and further teaching, provision of alternative materials, re-teaching and re-education.

METHODOLOGY

The purpose of this study is to investigate constraints to the implementation of the competence-based approach (CBA) in some government technical colleges in Fako Division. It seeks to investigate implementation related problems as well as teachers', chiefs of works' and principals' perceptions of how to best address them.

The researcher adopted the survey research design for this study. The study employed a questionnaire to collect the required data.

Population of the Study

Fako Division has five Government Technical High Schools (GTHS) and five Government Technical Colleges (GTC) giving a total of ten technical colleges in the Division (MINESEC/PDSW/SDGA/SSMGCCA (2013/2014).

Table: Distribution of Principals, Chiefs of work and teachers in schools

Fako Division	Number of Principals, Chiefs of work and teachers			
	Principals	Chiefs of work	Teachers	Total
GTHS				
Molyko	4	2	103	109
Ombe	5	1	92	98
Muyuka	2	4	56	62
Limbe	1	2	44	47
Tiko	4	5	61	70
GTC				
Bakingili	1	2	30	33
Bova	1	1	31	33
Munyenge	1	2	34	37
Lysoka	1	2	12	15
Ekona	1	2	17	20
Total	21	29	480	524

Source: Sub-Directorate of General Affairs. Regional Delegation of Secondary Education for the South West

Sample and Sampling Technique

The researchers choose Fako Division because he is currently serving as a technical education teacher. The Principals, teachers and chiefs of work constituted the sample for the study.

The clustered random sampling technique was used to obtain the schools of the study. The choice of clustered sampling was based on Nworguis (1991) recommendation of these sampling techniques when dealing with a large population which geographical dispersed. The schools which were each considered as a cluster were randomly selected using the following procedure. I wrote down the names of all the ten technical schools in Fako-division on slips of papers, folded them and put them in a basket. The slips of papers were mixed thoroughly and five schools were randomly selected.

Table 5 below represents a distribution of the respondents according to schools in Fako Division.

Table: Distribution of Sample by Number of Schools in Fako Division.

Fako Division	Number of Principals, Chiefs of work and teachers			
	Principals	Chiefs of work	Teachers	Total
GTHS				
Molyko	1	2	103	106
Ombe	1	2	92	95
Muyuka	1	2	56	59
Limbe	1	2	44	47
Tiko	1	2	61	64
GTC				
Bakingili	1	2	30	33
Bova	1	1	31	33
Munyenge	1	2	34	37
Lysoka	1	2	12	15
Ekona	1	2	17	20
Total	10	19	480	509

Source: From field survey 2015

Krejcie and Morgan in 1970 (cited in Amin, 2005), state that for a population of 700, the least sample size should be 248. Based on this framework, a sample of 158 respondents comprising 10 principals, 19 chiefs of work and 129 teachers was used for this study. Table 3.3 below is a distribution of the population and the sample.

Table: Distribution of Population and Sample

	Population	Sample
Principals	10	10
Chiefs of works	19	19
Teachers	480	129
Total	509	158

Source: From field survey 2015

Permission to administer copies of the questionnaire to teachers was sought from each principal. Data collection started when the authorization had been granted. I administered copies of the questionnaires directly to the respondents with the assistance of friends who are teachers in some of the schools. I requested that the questionnaires be completed on the spot, and returned. Respondents who were not prepared to do so on the spot were asked to complete the questionnaire at their soonest

convenience. I returned later to collect them, after making telephone calls to ensure that they were ready. A total of 158 copies of questionnaires were given out to principals, teachers and chiefs of work, and a total of 134 were duly completed and returned, giving an overall return rate of approximately 84.8%. The response rates from each of the school of interest are presented in table 7 below.

Table: Return rate of questionnaire by schools

School	No distributed	No returned	% Returned rate
Molyko	59	53	89.8
Ombe	29	23	79.2
Muyuka	27	21	77.8
Tiko	32	26	81.3
Bova	11	11	100%
Total	158	134	

Source: From field survey 2015

Collected data was analysed using the Statistical Package for the Social Sciences (SPSS version 21 for windows) and reported using measures of central tendency – frequencies, percentages, means, scores and global mean using the likert scale.

FINDING

Findings of this study is presented based on the key item under investigation In this study, the characteristics of Competence Based Approach are; need, clarity, complexity, quality and practicality of the materials each of which consists other items. Tables below are a presentation of the frequencies and percentages responses pertaining to each of the characteristics of the CBA.

Table: Frequency and percentage distribution of respondents perceptions of the need characteristic of competence based approach

S/N	Opinions	SA		A		D		SD		NR		Mean	Global mean
		F	%	F	%	F	%	F	%	F	%		
1	The competence based approach (CBA) enables students to ask thought-provoking questions.	32	23.9	78	58.2	17	12.7	6	4.5	1	0.7	2.0	2.3
2	The competence based approach (CBA) enables students to freely express their opinions about what they are learning	63	47.0	66	49.3	4	3.0	1	0.7	1	0.7	2.4	
3	Students think in a logical manner when using the competence base approach.	28	20.9	73	54.5	24	17.9	7	5.2	2	1.5	2.2	
4	Some teachers think that the CBA is better than the former approach teachers were using.	59	44.0	54	40.3	15	11.2	4	3.0	2	1.5	1.8	
5	Students are more productive in the applications of practical skills learned.	67	50.0	40	29.9	19	14.2	4	3.0	4	3.0	1.9	
6	The CBA is recommended to all teachers	38	28.4	75	56.0	14	10.4	4	3.0	3	2.2	2.0	

Source: Field survey, 2015

Table above sought to find out respondents opinions pertaining to the need characteristic as a constraint to the implementation of the Competence Based Approach (CBA). An overview of the responses show that 32 (23.9%) of the respondents strongly agree that CBA enables students to ask thought-provoking questions. 78(58.2%) agree, 17 (12.7%) disagree while 6 (4.5%) of the respondents strongly disagree to this view. On the other hand, 1(0.7%) of the respondents did not respond. This shows that, 82.1% of the respondents support the fact that CBA enables students to ask thought-provoking questions while 19.9% are negative on the opinion.

Also, 63(47.0%) of the respondents strongly agree that CBA enables students to freely express their opinions about what they are learning. 66(49.3%) of the respondents agree to this view while 4(3.0%) of the respondents disagree and 1(0.7%) strongly disagree. 1(0.7%) of the respondents did not express any view on this assertion. This shows that most of the respondents think that the CBA enables students to freely express their opinions about what they learn in school. This gives a global percentage of 96 who confirm that the CBA enables students to freely express their opinions and 4% hold a negative view to this opinion.

With respect to the CBA and logical thinking, 28 (20.9%) of the respondents strongly hold the view that students think in a logical manner when they are taught using the CBA. 73(54.5%) of the respondents agree to this while on the contrary 24(17.9%) of them disagree alongside 7(5.2%) who strongly disagree. Unlike the other respondents, 2(1.5%) of the

respondents did not respond to this question. This gives a percentage distribution of 75.4% in support of the view that students think in a logical manner when taught using the CBA while 24.6% of the respondents are negative on this view.

The study also sought to examine respondents preferences of CBA compared to the former methods of teaching. The results show that 59(44.0%) of the respondents strongly hold the view that CBA is better than the former approaches of teaching, 54(40.3%) agree, 15(11.2%) disagree while 4(3.0%) strongly disagree. 2(1.5%) of the respondents did not express any opinion. This gives an overall percentage distribution of 88.3% in support of CBA as a better teaching approach to other methods and 13.2% in disagreement with this.

With respect to students productivity and CBA, 67(50%) of the respondents strongly agree that students are more productive in the applications of the practical skills learned with the CBA of teaching, 40 (29.9%) agree, 19(14.2%) disagree and 4(3.0%) strongly disagree. Only 4(3.0%) of the respondents did not response to this question. This indicates that 79.9% of respondents are positive on students productivity in the application of practical skills learned using the CBA and 17.2% do not see that with CBA students are productive and able to apply the skills learn.

Lastly, with respect to need as a characteristic of CBA, the study sought to examine respondents' opinions with respect to whether CBA is recommended to all teachers. The findings show that 38(28.4%) of the respondents think that all teachers should use the CBA in teaching and 75(56.0%) of the respondents agree to this view also. On the other hand, 14(10.4%) of the respondents disagree and 4(3.0%) strongly disagree. 3(2.2%) stay neutral.

From the table above, it can be observed that the six items designed to measure the need for CBA give a mean distribution of 2.0, 2.4, 2.2, 1.8, 1.9 and 2.0 from the first to the sixth item. Four of them have mean values lower than 2.5 the cut-off zone on a scale of 5.0. This shows that need as a characteristic of CBA is a constraint to its implementation.

Table: Frequency and percentage distribution of respondents' perceptions of the clarity characteristic of competence based approach

S/N	Opinions	SA		A		D		SD		NR		Mean	Global mean
		F	%	F	%	F	%	F	%	F	%		
1	The CBA is complicated.	5	3.7	51	38.1	69	51.5	9	6.7	0	0	2.6	2.9
2	Strategies of teaching using the CBA are clearly known to teachers.	4	3.0	45	33.6	71	53.0	11	8.2	3	2.2	2.8	
3	If you had to ask teachers to tell you what the CBA is all about, they are likely to have same meanings / interpretations.	6	4.5	62	46.3	44	32.8	4	3.0	18	13.4	3.3	

Source: Field survey, 2015

The study also sought to examine clarity as a constraint to the implementation of CBA in Technical Colleges in Fako. The findings shows that 5 (3.7%) of the respondents strongly agree that CBA is complicated, 51(38.1%) agree to this view, 69(51.5%) disagree and 9(6.7%) strongly disagree. This gives an overall percentage distribution of 41.8% of respondents with an opinion that CBA is complicated and 59.2% of the respondents hold the opinion that CBA is not complicated.

With respect to respondents views on the strategies of teaching using the CBA, 4(3.0%) strongly agree that teachers clearly know the strategies to adopt in teaching using the CBA. 45(33.6%) of the respondents agree to this view while 71 (53.0%) of the respondents disagree supported by 11(8.2%) of the respondents who strongly disagree. On the contrary 3(2.2%) of the respondents do not respond to this question. This shows that 36.6% of the respondents support that idea that the strategies of teaching using the CBA are clearly known to the teachers while 63.4% of the respondents think that the strategies of teaching using the CBA are not clearly known to the teachers.

Lastly, the responses show that 6(4.5%) of the respondents hold the view that if you ask teachers to tell you what the CBA is all about, they are likely to give the same meanings and interpretations. 62(46.3%) of the respondents agree to this assertion while 44(32.8%) of the respondents disagree and 4(3.0%) strongly disagree. 18(13.4%) of the respondents stay neutral as this point is concerned. This respond rate give an overall percentage distribution of 50.8% of responses supporting the fact that teachers can give similar meanings and interpretations of what the CBA is if asked. On the contrary, 49.2% of the respondents think that if teachers are asked what the CBA is, they will give varied responses and interpretations of the CBA.

With regards to the clarity of CBA as a constraint to its implementation, three items were examined and each has a mean of 2.6, 2.8 and 3.3 from the first to the third item. This gives a global mean of 2.9 on a scale of 5. This mean falls above the cut off zone of 2.5 showing that clarity is not a constraint to the implementation of the competence based approach.

Table: Frequency and percentage distribution of respondents' perceptions of the complexity characteristic of competence based approach

S/N	Opinions	SA		A		D		SD		NR		Mean	Global mean
		F	%	F	%	F	%	F	%	F	%		
1	Teachers can easily write lesson notes using the CBA.	5	3.7	51	38.1	69	51.5	9	6.7	0	0	2.6	2.3
2	Teachers can teach all subjects of the curriculum using the CBA	21	15.7	50	37.3	48	35.8	13	9.7	2	1.5	2.5	
3	It is easy to help students discover their hidden skills / talents.	45	33.6	66	49.3	22	16.4	1	0.7	0	0	1.8	

Source: Field survey, 2015

Table, above shows a frequency, percentage and mean distributions of items used to measure respondents perceptions on the complexity of the competence based approach. According to the presentation, 5(3.7%) of the respondents strongly agree that teachers can easily write lesson notes using the CBA of teaching, 51(38.1%) agree to this view while 69(51.5%) of the respondents disagree supported by 9(6.7%) respondents who strongly disagree. These responses give a general percentage rate of 41.8% in support of the fact that teachers can easily write lesson notes using the CBA. This notwithstanding, 58.2% of the responses are negative on this view by holding that teachers cannot easily write lesson notes using the CBA.

Also, complexity of the CBA was measured using the ease of utilization of the CBA in the curriculum. The responses show that 21(15.7%) of the respondents strongly agree that teachers can teach all subjects of the curriculum using the CBA, 50(37.7%) of the respondents agree to this view, 48(35.8%) disagree while 13(9.7%) of the respondents strongly disagree. On the other hand, 2(1.5%) of the respondents did not express any view on this item. This implies that with respect to the ease of utilization of the CBA, 53.4% of the responses confirm that teachers can teach all subjects of the curriculum using the CBA while 46.6% think that teachers cannot teach all subjects of the curriculum using the CBA.

Lastly, in order to examine complexity, the researcher sought respondents' opinions on the ease with which the CBA can help students to discover their skills. Findings reveal that 45(33.6%) of the respondents strongly agree that the CBA can easily help students discover their hidden skills / talents supported by 66(49.3%) of the respondents who also agree with this point. On the other hand, 22(16.4) of the respondents disagree and 1(0.7%) strongly disagree. This results to a confirmation rate of 82.9% that it is easy for students to discover their hidden skills / talents using the CBA against 17.1% negative rate that it is not easy for students to discover their skills and talents when taught using the CBA.

Among the three items used to measure complexity as a constraint to the implementation of the CBA, the individual means are 2.6, 2.5 and 1.8 from the first to the third item. This results to a global mean of 2.3 which falls below 2.5 the cut off zone on a scale of 5. This implies that complexity is a constraint to the implementation of the competence based approach.

Table: Frequency and percentage distribution of respondents perceptions of the quality and practicality characteristic of competence based approach

S/N	Opinions	SA		A		D		SD		NR		Mean	Global mean
		F	%	F	%	F	%	F	%	F	%		
1	Teachers' manuals for the CBA are available for all subjects of the curriculum.	13	9.7	23	17.2	77	57.5	19	14.2	2	1.5	2.9	2.7
2	Teachers' manuals demonstrate clearly how to teach using the CBA for specific subjects.	8	6.0	39	29.0	74	55.2	10	7.5	3	2.2	2.8	
3	Textbooks are complete matches to curriculum guidelines.	11	8.2	36	26.6	71	53.0	11	8.2	5	3.7	2.8	
4	The CBA is practically useable in my classroom.	12	9.0	78	58.2	39	29.1	5	3.7	0	0	2.3	
5	I would rather teach using the old approach than the CBA	4	3.0	39	29.1	64	47.8	27	20.1	0	0	2.9	

Source: Field survey, 2015

The last characteristics of change that was used to measure the implementation of the CBA were quality and practicality. Five items were used to measure quality and practicality and the findings were as presented in table above.

13(9.7%) of the respondents strongly agree that teachers' manuals for the CBA are available for all subjects of the curriculum, 23(17.2%) of the respondents agree to this statement while 77(57.5%) of the respondents disagree

supported by 19(14.2%) of the respondents who strongly disagree. On the contrary 2(1.5%) of the respondents stayed neutral as this point was concerned. These responses give an overall percentage distribution of 26.9% of respondents who confirm that teachers' manuals for the CBA are available for all subjects of the curriculum and a percentage of 73.1% which say that teachers' manuals for the CBA are not available for all subjects of the curriculum. With respect to a clear demonstration of how to teach using the CBA in specific subjects, the responses show that 8(6.0%) of the respondents strongly agree that teachers' manuals demonstrate clearly how to teach using the CBA in specific subjects. 39 (29.0%) disagree and 74(55.2%) disagree while 10(7.5%) strongly disagree. Meanwhile 3(2.2%) stayed neutral on this point. From the above responses, it can be deduced that there is a 35% confirmation rate that teachers' manuals demonstrate clearly how to teach using the CBA in specific subjects with a 65% rejection rate.

The study also sought to examine the match between textbooks and curriculum guidelines with respect to the CBA. The results show that 11(8.2%) of the respondents strongly agree that Textbooks are complete matches to curriculum guidelines in CBA, 36(26.6%) of the respondents agree to this view. On the contrary, 71(53.0%) of the respondents disagree with this statement supported by 11(8.2%) of the responses which strongly disagree. Only 5(3.7%) of the respondents did not respond to this question. In line with these responses, there is 34.8% confirmation that Textbooks are complete matches to curriculum guidelines while 65.2% of the respondents reject this point.

In order to measure the practicality of CBA, the researcher examined respondents' opinions with regards to the CBA usability in the classroom. According to the survey, 12(9.0%) of the respondents strongly agree that the CBA is practically useable in their classrooms, 78(58.2%) agree, 39(29.1%) disagree to this point while 5(3.7%) of the respondents strongly disagree. This gives a global response percentage of 67.2% in support of that fact that the CBA is practically useable in the classroom against a percentage of 32.8% vetoing.

Lastly, quality and practicality of the CBA was examined with respect to respondents' preferences of teaching methods. The results show that 4(3.0%) of the respondents strongly agree that they would rather teach using the old approach than the CBA and 39(29.1%) agree to this view. On the other hand, 64(47.8%) of the respondents disagree supported by 27(20.1%) of respondents who strongly disagree. As such, giving an overall percentage distribution of 32.1% who say that they would rather teach using the old approach than the CBA against 67.9% who think that they would rather teach using the CBA than the old approach.

Going by this presentation in table 15, five items were used to measure quality and practicality of the CBA and the resultant means were 2.9, 2.8, 2.8, 2.3 and 2.9 in descending order as presented on the table. These mean values give a global mean of 2.7 which falls above the cut-off zone of 2.5 measured on 5. Implied that quality and practicality are not constraints to the implementation of the competence based approach of teaching.

Table: Comparative examination of the components characteristics of change as a constrain to the implementation of the CBA in Technical Schools

Component	Mean	Global mean
Need	2.3	2.6
Clarity	2.9	
Complexity	2.3	
Quality and practicality	2.7	

Source: Field survey, 2015

Giving a comparative view of the components that constitute the characteristics of competence based approach as presented on table 16 above, it can be revealed that need has a mean of 2.3 which is below the cut-off point of 2.5. Going by this result, need for the implementation of the CBA is not adequately understood in schools. On the other hand, clarity has a mean of 2.9 which is above the cut off zone implying that the concept of CBA is clearly understood by teachers, principals and chiefs of work. In like manner with need, complexity has a mean of 2.3 which indicates that the CBA is a complex approach of teaching-learning to teachers, principals and chiefs of work in the school milieu. Unlike need and complexity, quality and practicality have a mean of 2.7. All these result to a global mean of 2.6 above the cut-off zone of 2.5. This mean of 2.6 implies that the characteristics of the Competence Based Approach (CBA) do not constitute a constraint to the Implementation of the CBA in Technical Schools in fako division.

SUMMARY OF FINDINGS

An examination of the need characteristic of CBA was done under six different components and the results revealed that the CBA enables students to ask thought-provoking questions as supported by 82.1% of the respondents against 19.9%. This is immediately supported by a 96% confirmation that the CBA enables students to freely express their opinions and whenever they are thought in class. They also think in a logical manner when taught using the CBA and as such it is a better teaching approach to other methods of teaching. Hence most respondents prefer that the CBA be used in technical colleges than other older methods of teaching because there is a 79.9% confirmation that students are more productive in the application of practical skills learned using the CBA.

Hence of the six items designed to measure the need for CBA, a mean of 2.0 is obtained indicating that the competence based approach (CBA) enables students to ask thought-provoking questions. This mean falls below the cut-off point of 2.5 implying that CBA does not enhance thinking and questioning ability of a student and as such there is no need for its implementation. Also, similar mean values of 2.4, 2.2, 1.8, 1.9 and 2.0 are obtained with none of them above the cut-off point implying that the need for the implementation of the CBA is not yet established and there is no essence of recommending the CBA for all teachers. Hence, needs constitute a constraint to the implementation of the CBA. These findings are in line with the study of Fullan (1982) who defines need in terms of extent to which the innovation addresses a priority need as perceived by those who are to implement the change. His study is further supported by Welch in 1989 (Cited in Fullan and Steigelbauer, 1991) that need is determined by teachers in terms of how the innovation will impact them personally and impact students'

growth. Implementers of an innovation must therefore believe that the needs being addressed are important. They need to see it as contributing to students learning before they would “buy in” to the change. If teachers in particular do not see a need for an advocated change, change in practice will not occur. But if they perceive a need for the innovation, they become more committed, enthusiastic, and actively engaged in the change process and can even recommend it to others. Hence in order to establish a need for change, it is advisable to seek the opinion of implementers as according to Rosenblum and Louise in 1971 (Cited in Fullan, 1982), declare that implementation of any new programme is not likely where some of these sources, especially teachers are ignored. This is confirmed in their study where they found that successful implementation of school projects depended on the degree to which there was formal recognition within the school system of unmet needs. Involvement of teachers in the needs assessment process increases their feelings of ownership and commitment to the change. Lack of involvement, on the other hand, results in lack of trust in the change initiators, and thus increases teachers’ resistance to change.

Clarity of the CBA

Clarity as a characteristic of the CBA was examined in terms of the complicated nature of the CBA, the clarity of the strategies of teaching using the CBA and if different teachers have similar meanings / interpretations of what the CBA is. The findings reveal a confirmation that the CBA is not complicated as supported by 59.2% of the respondents. Also the respondents give an overall percentage distribution of 50.8% support that teachers can give similar meanings and interpretations of what the CBA is if asked. Despite this, the strategies of teaching using the CBA are not clearly known to the teachers as indicated by 63.4% of the respondents who think that teachers cannot even draw lesson plans and notes using the CBA. Out of the three items examined under clarity as a characteristic of the CBA, each has a mean of above 2.5 on a scale of 5 resulting to a global mean of 2.9. Going by this presentation, the CBA is a clear concept that is not complicated to implement though the strategies to implement the change are not well known. Hence, clarity is not a constraint to the implementation of the competence based approach. This supports the findings of Fullan (1982) and Hord (1992) have found clarity of goals and means of implementation as central to effective implementation of innovations and clarity is important for developing a shared vision, hence When teachers and others involved in implementation are not clear on what they are being asked to do, and what the change is supposed to look like in their classrooms, it causes great anxiety and frustration.

Complexity

Complexity was examined and the results show that teachers cannot easily write lesson notes using the CBA as confirmed by 58.2% of the responses. Also, this implies that with respect to the ease of utilization of the CBA, 53.4% of the responses confirm that teachers can teach all subjects of the curriculum using the CBA as such enabling learners and teachers to discover their hidden skills. An examination of the components of complexity show that among the three items used to measure complexity as a constraint to the implementation of the CBA, the individual items resulted to a global mean of 2.3 which falls below 2.5 the cut off zone on a scale of 5. This implies that the CBA is complex and that

teachers, principles, and even Chief of works will find it difficult implementing the method. As such, the complex nature of this approach is a constraint to its implementation. Louis (1979) as cited in Fullan (1982), found that complex changes are more difficult to implement than simple ones because complex changes require extra effort from the implementers, of which they are usually not willing to put in. it also increases the problem of lack of clarity which affects implementation negatively

Quality and practicality Characteristic of Competence Based Approach

Results of quality and practicality as characteristics of the CBA showed that teachers are not given manuals to use in all subjects of the curriculum given the CBA as supported by 73.1% of the respondents and even the few that are given do not clearly demonstrate to them how to teach using the CBA in specific subjects. This is confirmed by 65% of the respondents. This is further worsened by a 65.2% confirmation that textbooks do not match the curriculum guidelines that are given to teachers to use in teaching. Despite this, 67.2% of the respondents hold the view that the CBA is practically useable in the classroom because the few subjects in which the curriculum is given can be applied effectively though only few teachers, chief of works and principals (32.1%) can desire to use the CBA in teaching than the old approach. From this presentation, means of 2.9, 2.8, 2.8, 2.3 and 2.9 were obtained with a global mean of 2.7 which falls above the cut-off zone of 2.5. This implies that the aspect of quality and practicality are not constraints to the implementation of the competence based approach of teaching. This is in contrast with the findings of Kormos & Simms (1978) who found that curriculum guides that were not clear in terms of goals and content, and did not clearly specify procedural content were not helpful in the classroom. Rather, such materials tended to confuse and frustrate teachers. On the other hand, programme materials that were well organised, comprehensive, detailed and address “how-to” concerns were found to be more effective at the implementation stage. Fullan (1982) noted that poor quality and impracticality of materials maybe the result of the adoption decision, or when materials are not developed by practitioners but that clarity of materials promotes and teachers commitment which is necessary for effective implementation of the CBA.

A comparison of the constraint levels of the items of characteristics of the competence based approach constituting need, clarity, complexity, quality and practicality of the method gives mean values of 2.3, 2.9, 2.3 and 2.7 respectively. This shows that need actually constitute a constraint to the implementation of the CBA because most teachers, principals and Chief of works cannot actually establish the need for this system of teaching and learning if the curriculum was supposed to be drawn without the practitioners present. A mean of 2.9 is recorded for clarity of the CBA which implies that though this approach is complicated, the strategies of teaching using it are clearly known to practitioners because most teachers can say similar things when asked what the CBA is all about. On the contrary, the concept of the CBA is clear to users but complex because it is not easy to help students discover their hidden skills / talents. As such it reduces the quality of the CBA and renders it impracticable because Teachers do not have clear demonstration of how to teach using the CBA for specific subjects.

It can be concluded that of the four elements used to measure the characteristics of the CBA, need and complexity constitute a constraint to the implementation of the approach while clarity and quality are not a constraint to the implementation of the CBA in Technical colleges in Fako Division.

Conclusion

From the findings presented above, the following conclusion can be drawn.

With respect to the characteristics of the CBA; need, clarity, complexity, quality and practicality of material, it can be identified from the responses and mean values that the need for the implementation of the CBA is not adequately understood by teachers, principals and chief of works though the concept is clearly understood to them. Also the complex nature of this teaching-learning style makes most people not to ascertain a single meaning of what the CBA is though there is quality and practicality of materials. That notwithstanding, the characteristics of the CBA do not constitute a constraint to its implementation in Technical Colleges in the Fako Division of Cameroon.

Recommendations

From the findings presented and the conclusion drawn above, recommendations can be addressed to students, parents, teachers, principals, chief of works and even the government including the pedagogic inspectors.

Firstly, given that students are the ones to benefit from this CBA, they should endeavour to collaborate with their teachers, principals and parents back at home in order to encourage them dedicate time to teach them well, and even buy their text books to ensure proper learning. Also they should always try to take their studies seriously both in and out of the school premises. This will enable them to properly channel their problems to the administrators on how the difficulties they are facing in learning through the CBA.

Parents need to be educated on the CBA and their contribution to ensure proper implementation. This will help them understand the need for purchasing textbooks for their children and other learning materials as well as follow up the students back at home.

The role of the teachers in the implementation of the CBA in schools cannot be over emphasized. Teachers need to be continuously trained through seminars and workshops as well as regular follow up by principals and pedagogic inspectors to ensure that the CBA is properly implemented and also address the problems teachers face in implementing the CBA. Given that labour needs motivation before the best can be exhibited, the government should consider increasing the salaries of teachers to encourage them do personal research on the internet and libraries on how to adequately handle pedagogic problems. This increase in salaries should be highly interpreted by teachers as measures used to encourage teachers efforts in schools with or without follow up and evaluation by the principal. Moreover, they should know that we are living in a continuous changing technological world and this cannot be done without changes in pedagogic approaches in teaching and learning, hence they should not resist change but rather embrace it and strive to implement it even when they were not consulted before the change was adopted.

On the part of principals, they should know that they are the supervisory authorities in any school milieu and can be the only ones to systematically evaluate the implementation of a new pedagogic approach like the CBA. They should also endeavour to maintain a cordial relationship between them and their teachers as well as their students because it is a prerequisite for appropriate teaching and learning. The principals should equally make financial demands for funding from the government and donors in which case they should judiciously use the funds to make sure that didactic materials are made available in schools and at the right time. This can also help to sponsor seminar and workshop sessions, as such ensure proper implementation of the CBA in Technical Colleges in Fako.

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