

SECONDARY SCIENCE TEACHERS' RESPONSES TO A COMPETENCY- BASED CURRICULUM IN TANZANIA: FACTORS INFLUENCING TEACHERS' CLASSROOM PRACTICE

MOHAMED SULEIMAN
POST-GRADUATE STUDENT (PHD)
UNIVERSITY OF LEEDS, UK
EMAIL: EDMMS@LEEDS.AC.UK

COVERAGE

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INTRODUCTION

- In recent decade, we experienced high pressure from the international educational agencies of reforming school curriculum as a way of improving the quality of education.
- The Competency-Based Curriculum (CBC) is the latest school curriculum that various African countries adopt from western countries for the assumption that it will improve their quality of education.

CON;


- In 2005, Tanzania made a paradigm shift of its curriculum from the Content-Based Curriculum to a Competency-Based Curriculum (CBC) started from the secondary education and now spread across the entire of its educational system.
- The CBC reform aims to shift teaching from traditional mode of teacher-centred teaching to a more interactive modern of student-centred teaching.

CONT.;

- If implemented effectively, the science CBC would prepare students for ;
 - Post-secondary science education toward increasing pool of science-related professional
 - science and technological literacy,
 - knowledge and skills that would enable students to take personal responsibility in making decisions about some scientific issues in their everyday life (Tanzania Institute of Education [TIE], 2007).



CONT;

- However, a decade since the inception of the CBC in Tanzania has revealed that the performance and impact of science is still a major concern for both government and society.
 - Amongst the reasons offered as explanations for poor performance in science is the very implementation of the CBC (Paulo and Tilya, 2014)
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CONT;

- In practice, we cannot overlook teachers' response to the enactment of any curriculum reform.
- After all, “policy writers cannot control the meaning of their text” (Ball et al., 2002, p. 22).
- The teachers as the key players of policy enactment, they might emphasize some areas while deemphasizing others depending on different factors they might experience during their practice.

STUDY OBJECTIVE

- Exploring factors that influence teachers on their classroom practice in response to the CBC reform in Tanzania
- How teachers negotiating those factors within their practice

A COMPETENCY-BASED CURRICULUM

- A distinctive feature of the CBC as compared with other types of curriculum is its emphasis on the performance objectives statement (competencies), focus to develop knowledge, skills and attitudes to the students (Alake-Tuenter et al., 2012).
- In the field of science, Byrne et al., (2013) assert that CBC endeavours to develop an individual's transferable skills, rather than the mastering of subject content. As such, the success of the learning process is not measured by the extent to which the learner is able to retrieve academic content but rather by the level at which the learner can apply learning concepts in a real life environment.

CONT.;

- Scientific concept should be developed through scientific inquiry strategies, interacting on argumentation, and problem solving.

- In Tanzania the CBC defined as:

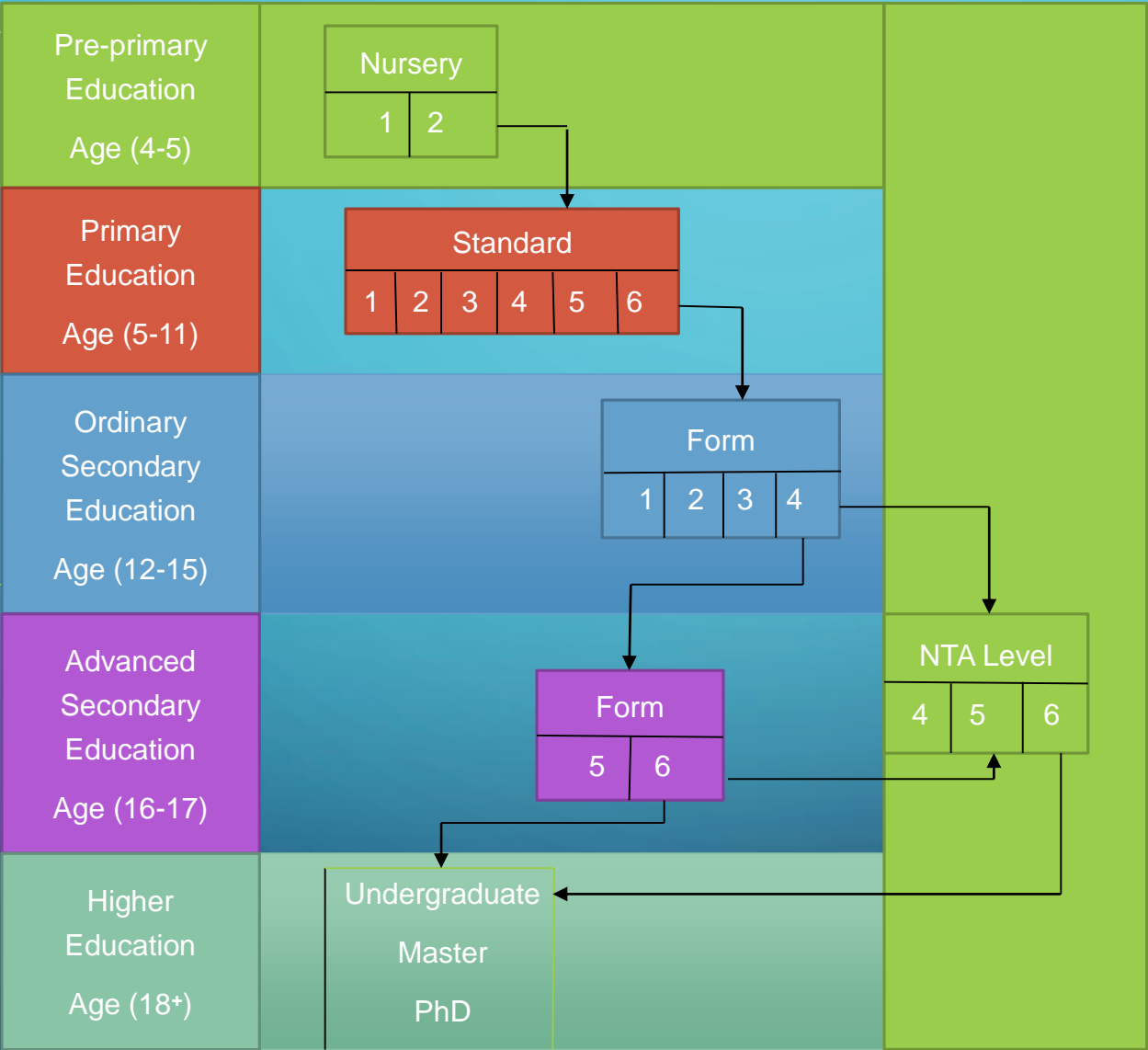
“ a curriculum that intended to promote learning by doing where both the teacher and the learners are active participants in the learning process..., the learners have to get opportunities to interact with environment through well-organized tasks, dialogue, and reflections on learners’ conceptions and eventually arriving at agreed solutions through the use of various senses to built multiple-competencies.....(TIE, 2007, p. 29).

GEOGRAPHICAL LOCATION OF TANZANIA

- <https://www.google.co.uk/maps/@-6.3533569,30.4917423,6z>

Educational system of Tanzania

Compulsory Education



Methodology

Qualitative Approach

Method of data collection

1. Interview

Sample: n= 21 science teachers

2. Focus group discussion

Sample: n = 12 science teachers (3 for each group)

Sampling Technique: Purposeful

Qualitative data analysis

Procedure: Thematic analysis through coding process (Braun and Clarke, 2006)

Technique: Coding reliability, reflexive/organic, and **codebook**

Analytical Framework: PIE (Goodson, 2003; Ryder and Banner, 2013)

Discussion & Implication

RESULTS

- The analysis was drawn on the model developed by Ryder and Banner (2013) that connect three sets of factors; personal, internal and external (PIE).
- These three broad frames were originally identified by Goodson (2003).

SUMMARY OF THE FINDINGS

Influences	Corresponding factors
Personal	Teacher's content knowledge
	Teachers' teaching experience
	Teacher's personal goal of teaching
	Teacher's personal biography
	Teacher's religious beliefs
Internal	Nature of the students/level of the students
	Student-teacher ratio
	Teaching and learning resources
	Internal school policy
	Internal school administrates (Head of department, section leaders and head teacher)
	Language of instruction
External	External school administrative
	External school inspectorates
	Parents
	External curriculum board
	External examination

AREA OF FOCUS ON TEACHERS' PRACTICE

- The enactment of the CBC has been conceptualised in three areas of teachers' practice:
 - Planning stage prior to the classroom practice (lesson preparation)
 - Teaching pedagogy, and
 - The assessment practices.

My argument in this study is that; teachers do not take the reform as naïve reader (Bowe et al. (1992, p. 84); thus the important was to

, to identify the nature and extent of *teachers' resistance, accommodation, subterfuge, conformity* as well as **accountability** in response to the CBC enactment

PLANNING PRIOR TO THE CLASSROOM PRACTICE

- Teachers translate and make meaning of the *intended curriculum* toward *taught curriculum*.
- This formal procedure , received mixed responses from the teachers
- Few teachers in this study characterised the lesson plan as a professional tool for guiding them in their CBC enactment.
- In instances where teachers did use lesson plans, this was done in such a way so as to accommodate their personal goals in the teaching;
 - ✓ To be systematic and consistent
 - ✓ Be confident as it serve as reference in during teaching practice
 - ✓ For personal record
 - ✓ As evidence to the school administrative

- For example one of the teachers pointed out this:

- “(...), we must first prepare a lesson plan; it is the important tool to help teachers in classroom; going in the classroom without preparation is not good; learning should go sequential, when the teacher enter the classroom without planning he will touch here, touch there; the lesson will not flow well” (Interview, Mr. Ole, V1, T4)

- Similarly another teacher added that:

- “(...), I ensure that I know the topic in detail. Then I prepare the teaching and learning materials, sheets of work that indicate the activities students will perform during the teaching (...), prepare a lesson plan to help me teach according to what I have plan” (Interview, Mr. Kauka, V1, T3)

Planning prior to teaching not only help teachers *organising classroom instructions but also serves as a psychological benefit for teachers* (McCutcheon, 1980, p.9).

Teachers tended to comply with the new reform whenever they see it fit within their professional boundary.

- On the other hand, several teachers believed that written standard lesson plan is unnecessary workload to the teachers. The teaching experience and teachers' content knowledge were considered as the sufficient criteria for teacher's planning. For instance, the following teacher echoed this:

- *(...), if you want to teach you must prepare the topic you want to teach, but since I have taught for so many years. I have already prepared my teaching notes; if I want to teach I look what I want to teach today and go in the classroom (Interview, Ms. Pamela, V1, T2)*

- This is totally against the will of the implementation of the CBC in the Tanzanian context. Thus, teacher's personal influences clashes with the formal process of implementing the CBC reform.

- In the situation where the reform has imposed to the teachers, not all teachers may accommodate the reform into their practice, the personal factors may hinder teachers to adopt it (Ball et al., 2012; Bascia et al., 2014).

- Further more another teachers posited that:

“Yeah! this lesson preparation disturbs me a lot, it wastes my time; instead of looking for learning information, I should sit and write a lesson plan; ..., since I came this morning, I was sitting and writing a lesson plan because today is Friday and we should submit it to the head of the department ...” (Interview, Ms. Njage, V1, T5)

- Many teachers in my study indicated dissatisfaction with the formal planning prior to CBC enactment, but complied with the procedure to avoid clashes with both internal and external school leadership. The study revealed that teachers tended to write the lesson plan after having taught instead of before teaching.
- Denying teachers’ autonomy and enforcing policy enactment as part of their professional practice is the source of the observed **subterfuge** in the enactment (Goodson, 2003). Thus, we see that a formal procedure of CBC enactment in the context of this study, can cause tensions if the curriculum developer not seriously considered the potential impact on teachers’ professional beliefs and understanding.

TEACHING PEDAGOGY

- Many teachers in this study were well informed that teaching and learning science through CBC in their context is defined under the constructivist theory of teaching.
- However, in this study, many of the teachers' practices were inconsistent with their understanding. The mismatch between the personal, internal and external influences brought teachers into a state of tension and clashes with the CBC reform.
- The teachers' clashes of their practice in response to the CBC reform were associated with the internal school context of overcrowded classrooms, oftentimes coupled with severe lack of teaching resources.

CONT.;

- In my study, due to the shortage of laboratory resources, teachers negotiated these difficulties and tended to teach in preference. Those class levels that have to sit for the national examination were given priority to be involved in experimentation.
- In addition, due to the high tension of the external examination, many teachers rely heavily on written assessments to comply with the national assessment.

- The teachers were immediately accountable to the external examination board because the results of it were used as a measure of the teacher's ability. For instance during one of the FGD, teachers were responding this way:

I am not teaching through participatory approach always, it's just some of the sessions; I focus more on content; we have large number of students; the syllabus is too long ... (FGD3, Mr. Kalima, T2)

In short, the main challenges are what my fellow said; student-teacher ratio and the shortage of laboratory resources. So, we often teach based on the priority. Those classes that have national examination are the one that I give them priority to teach experiment (FGD3, Mr. Kibua, T2)

Let me add to the same point there, you can find we have 70 students per class and the biology syllabus is very long. So, I skip some of experiments. I look those experiment that commonly appear in the examination, ... (FGD3, Ms. Kalorine, T1)

- *Why we are focus more on the examination? Because all evaluations are done through examination; a good teacher and bad teacher are categorised based on examination results, the teacher has taught or not, they (leaders) look the examination, students have understood or not also the reference is on the examination results (FGD3, Mr. Kibua, T7)*
 - **Researcher:** *If the students pass exams, means you have achieved the curriculum goal?*
- *Even if we have not achieved, but all leaders and even the parents they are looking what percentages of the students have passed; when the school got poor results, become an issue, ... (FGD3, Ms. Kalorine, T8)*
- The external pressure such as examination results, schools' competitions is likely to interfere with teacher's curriculum enactment. "Because the attention focused on the examination, the teachers' practice is largely controlled, not by the national intended curriculum, nor by the teacher's own sense of what constitutes good teaching, but, instead, by the examination itself (Posner, 1994, p. 93).

CONCLUSION

- The study suggests that the internal and external tensions must be harmonised with the goal of the curriculum reform, otherwise the policy itself will contribute greatly to the destruction of the reform implementation.
- It is evident that policy implementation is not as straightforward; It must incorporate the grassroots reality of teachers' personal influences such as professional beliefs and understanding. Furthermore, policy itself must be transformed based on the feedback from those enacting it – the curriculum reform must reflect to real context of the school to which the real implementation will takes place.

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