Adopting Competence-Based Curriculum to Improve Quality of Secondary Education in Tanzania: "Is it a Dream or Reality"?

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Abstract

This paper assessed the adoption of competence based curriculum (CBC) to improve quality of secondary education in Tanzania whether is a dream or reality. This paper tries to determine teachers' knowledge in implementing competence based curriculum. The study employed a mixed research approaches which utilised a descriptive survey design. Purposive and simple random sampling procedures were used to select a total of 162 respondents from six public secondary schools in Morogoro Municipality; six heads of secondary schools, six academic teachers, 102 class teachers and 48 secondary students. The questionnaire, interviews and observations were used to collect requisite information. Quantitative data were analysed by using descriptive statistics to determine frequency and percentage whereas qualitative data were subjected to content analysis. The study established that the majority of teachers lacked requisite knowledge for implementing competence based curriculum during the teaching and learning process. On the basis of these findings, the study concluded that, adoption of competence based curriculum to improve quality of secondary education in Tanzania has yet to translate into quality secondary education. Indeed, teachers, who are the major implementers, lacked knowledge and skills for implementing competence based curriculum effectively. The study, therefore, recommended that efforts be made by the government through the Ministry of Education and Vocational Training (MOEVT) to conduct immediate and regular in-service training to teachers to equip them with necessary knowledge and skills for implementing competence based curriculum efficiently and effectively.

Key-words: Competence-based curriculum, quality education, secondary education, Tanzania

1. Introduction

This paper introduces the problem under investigation, on adoption of competence based curriculum to improve quality of secondary education in Tanzania whether it is a dream or reality. The assumption is that competence based curriculum (CBC) is an approach that can help enhance students' academic achievement (Harris, Guthrie, Hobart & Lundberg, 1995; Weddel, 2006). But this cannot be realized without teachers who are key implementers of competence-based curriculum. Teachers, be it a primary teacher or secondary teacher need to be trained for them to be

knowledgeable whenever there is curriculum change (Anangisye, n.d.). Knowledge and understanding of teachers constitute an important aspect in the implementation of competencebased curriculum during the teaching and learning process. Indeed, the effectiveness and efficiency of CBC depends on teacher's ability to carry out teaching and learning activities responsibly and effectively. Mosha (2012) points out that qualified teachers with ample and appropriate knowledge and skills are one of the pre-conditions for a successful implementation of CBC. Therefore the need for changes in the instructional approaches, calls for the need to equip teachers (both in-service and pre-service) with the necessary competencies for handling new teaching paradigm (Woods, 2008). Teachers are filters through which the mandated curriculum passes. In other words, teachers are key players in mediating the mandated curriculum for the students' benefit. understand it and then use their experiential knowledge to evolve a workable curriculum (Flinders and Thornton, 1997). The implementation of CBC requires the use of new assessment strategies aligned with the new paradigm. To implement these changes it is necessary that all teachers become knowledgeable and equipped with new alternative approaches to assessment (Maclellan, 2004). The shift from content-based curriculum to competence-based curriculum forces teachers to change their way of thinking and working. They are forced to think holistically in terms of the whole authentic task that competent professionals perform (Hoogveld, 2003). In line with this, Sudsomboon (2010) points out that the successful realization of CBC heavily relies on the teachers, who are expected to give up their role as 'knowledge transmitters' and adopt the new role of 'coach' and instructional designer. Teachers are agents for change because of the role they play in implementing any curriculum reform. Studies have shown that curriculum reforms impact the school less, but they do influence teachers' practices in relation to their ability to shape policy. Teachers interpret, adapt and even translate reforms into practice (Utomo, 2005). The competence based curriculum requires teachers who are professionals, knowledgeable and competent in their work, particularly in implementing school curricula. If teachers are knowledgeable and conversant with the competence based curriculum they become an important aspect in improving the quality of education

2. The research problem

The move from content based curriculum to competence based curriculum was an attempt to improve quality of education by enabling learners to develop the required competences relevant in different spheres of life (Komba & Mwandaji, 2016). For effective learning especially under the competence based curriculum, a good choice and application of a variety of teaching methods is important. As such, teachers need to be highly proficient in the application of teaching methods necessary to make students' learning effective (Kafyulilo et al., 2012). Despite the fact that competence based curriculum has been in place in secondary education for ten years now, there is no clear evidence of whether or not teachers who are the major implementers have the requisite knowledge and skills for implementing it during the teaching and learning process. Therefore this study intended to assess whether adopting competence based curriculum to improve quality of secondary education is a dream or reality.

2.2 Objectives and research question

The purpose of this study was to assess whether adopting competence-based curriculum to improve quality of secondary education in Tanzania is a dream or reality. In attending to this main objective, the specific objective that guided the study was: to determine teachers' knowledge in implementing

competence-based curriculum in the teaching and learning process. In particular, this specific objective is guided by three sub-questions:

- i. What do teachers know about competence based curriculum?
- ii. Did teachers receive any training prior to the implementation of competence based curriculum?
- iii. Do teachers have the ability to apply competence based approach in the teaching and learning process?

2.3 Theoretical underpinning

Competence-based curriculum (CBC) is not a new concept in the education system in the world. The concept has a long standing history in the pedagogical realm. The use of the concept gained importance first in the developed world. As such, CBC, which is also known as competence-based education (CBE) originated from teacher education curriculum reform in the United States in the early 1960s. Later on the concept was applied to other professional education programmes in the US in the 1970s (Bowden, 2000; Mulder, 2004; Schilling & Koetting, 2010) and other European countries in 1980s in the context of falling industrial competitiveness attributable to an insufficiently trained or skilled workforce (Brownie, Thomas &Bahnisch, 2011). The development of CBE in Tanzania resulted from the problems arising in the training system that negatively affected the quality of education (Ogondieck, 2005). In other words the traditional curriculum (content-based curriculum) did not specify competencies required to be attained by students by the end of the course of study (URT, 2004). As such, CBC was aimed at improving the quality of secondary education in Tanzania, whereby learners were expected to obtain appropriate knowledge, skills, attitudes and problem-solving ability necessary to make them meet the changing needs of society. To maintain quality education is actually a function of the context, input, process and output (Mosha, 2000). The meaning of quality education consists of two aspects. First, it refers to the level of knowledge that the society wishes school to impart among students (i.e the level of academic achievement, new attitudes and values). Second, it refers to characteristics of the school environment that produce these skills, knowledge and values through teaching and learning processes (Otieno, 2000). However, this depends on whether teachers are competent and knowledgeable in translating the mandated curriculum into practice.

3. Methodology

3.1 Research approach and Design

This study utilised both quantitative and qualitative methods of data collection. It was important to adopt this approach in order to capture a wide spectrum of participants both quantitatively and qualitatively. Whereas the quantitative approach was necessitated by the need to collect data from participants in large number as possible, the qualitative approach was necessary to complement quantitative data by exploring participant' feelings and meanings associated with teachers' knowledge in implementing competence based curriculum in the teaching and learning process.

3.2 Population, sample and sampling techniques

This study involved heads of secondary schools, academic masters/ mistress, teachers and students from six public secondary schools in Morogoro region, which was randomly selected to represent other regions in Tanzania. Therefore the sample of this study was made up of six heads of secondary schools, six academic masters/mistresses, 102 teachers (17 from each school) and 48 students making a total number of 162 participants.

The heads of secondary school and academic masters/mistresses was selected purposeful by virtue of their strategic position as education administrators and supervisors of daily teaching and learning activities. They were supposed to be highly informed on policy issues pertaining to the implementation of CBC. The selection of teachers, was based on their being major classroom implementers of the competence based curriculum. Thus, simple random sampling technique was used to select teachers as the technique gives all teachers an equal chance of being included in the sample. On the other hand students were selected by simple random sampling technique from Form Threes and Form Fours. Students were involved in the study because they are major beneficiaries of the CBC in the teaching and learning process.

3.3 Instrumentation

The researcher acknowledges that no single method is self-sufficient or adequate in itself in collecting valid and reliable data (Creswell, 2005). Moreover, Cohen et al (2000) contend that each method checks and reinforces the others. Thus this study employed three techniques in data collection: the interview, questionnaire and observation.

The interview method was employed in this study due to its ability to yield rich insights into people's experiences, opinions, aspirations, attitudes and feelings about the research problem (Cohen et al., 2007). Specifically, semi-structured interviews were administered with heads of secondary schools and academic masters/mistresses. A semi-structured interview was preferred because it enabled the researcher to probe deeper for more information and clarification of the answers provided. It also allowed each respondent to express his/her views, opinions, experience and feelings in his or her own words about CBC to get detailed information (Kombo and Tromp, 2006).

Questionnaires were directly administered with teachers to determine their knowledge about competence based curriculum. The open ended, closed ended and likert types of questions were used to generate frequencies of responses and percentage. Any et al (2010) argue that closed-ended can be answered more easily and quickly whereas open ended questions help to identify possible alternative responses to the questions under themes related to the research objectives.

Non-participatory observation was employed to observe teachers during the teaching and learning process. The observations were made to obtain information on the teachers' pedagogical knowledge in using different instructional methods and materials which reflect CBC. Observations also helped the researcher to determine the ability of teachers to apply competence based approaches and assessment activities provided to students in an actual classroom environment.

3.5 Data analysis

Statistical Package for the Social Sciences (SPSS) version 18.0 was used to analyse data obtained through questionnaire in which descriptive statistics were used to determine teachers' knowledge in implementing competence based curriculum. On the other hand data obtained through interview schedules and classroom observation were analysed using the thematic content analysis.

4. Findings and Discussion

4.1 Teachers' understanding of the concept of competence based curriculum

The first research question was to examine teachers' understanding of the concept of competence based curriculum. To achieve this, teachers were asked two questions: to indicate yes or no in the questionnaire whether they understand the concept; and to explain what competence based curriculum is for those who indicated yes. The findings are summarised in Table 1.

Table 1: Teachers' responses on their understanding of the CBC (No=102)

| Responses | Frequency | % |
|--------------------|-----------|------|
| Yes No Total | 56 | 54.9 |
| No | 46 | 45.1 |
| Total | 102 | 100 |

Table 1 show that although CBC has been in place for ten years, there was still teachers who were not familiar with the concept. In this regard, it can be argued that competence based curriculum is being implemented not only by teachers who had an idea about the concept, but also teachers who are not familiar about it. During interview one head of school disclosed that:

Frankly speaking I do not even know exactly what the competence based curriculum is all about Tilya and Mafumiko (2010) also found that there were teachers who did not understand clearly competence based curriculum hence difficult in implementing it during teaching and learning.

For teacher respondents who indicated to have been familiar with the concept, they were asked to indicate what the concept is all about. The findings are summarised in Table 2

Table 2: Indicators of teachers' understanding of Competence Based Curriculum (N=56)

| | Frequen | % |
|---|---------|-----------|
| Responses | | 10.7 |
| Involving students in classroom work | | 10.7 1 |
| A curriculum that requires teachers and students to participate fully in the whole process of T/L | | 12.5 0 |
| A student centred approach that places a student at the centre of knowledge and the teacher to guide students to learn | | 21.4 3 |
| Learning through presentation; the teacher provides the topic then students present A curriculum that enables students to demonstrate ability to apply knowledge and skills learnt in a real life situation | | 5.36 |
| | | 25.0 0 |
| The curriculum which enable a student to perform and function independently in professional practice | | 5.36 |
| The part that carry ability and capacity of understanding of the subject content | | 7.14 |
| A curriculum that enables students to explore their own knowledge | | 1.79 |
| The teaching system which enhance the students to acquire knowledge themselves | | 3.57 |
| The curriculum aimed at bringing some desired competencies to the learners | | 5.36 |
| Respondents who did not respond | | 1.79 |
| Total | | 100 |

From data in Table2, it is evident that there are some inconsistencies in understanding the concept of competence based curriculum among teachers as there was a variation in the answers. As such, varied understanding of the concept among teachers was likely to bring about different ways in implementing the competence-based curriculum. However some responses reflected CBC for example the responses 'the curriculum aimed at bringing some desired competencies to the

learners', 'a curriculum that enables students to demonstrate ability to apply knowledge and skills learnt in a real life situation'. During interviews, one of the academic masters had the following to say about teachers' conceptualisation of the CBC concept:

Competence based curriculum is not well known among many teachers. Teachers understand it differently and this has brought confusion to many, especially when preparing lesson plans. I think only a few have the right conception of CBC. For me CBC is a curriculum which enables students to demonstrate ability to perform a particular activity, it focuses more on what students can do rather than what they know.

The narrow or wrong conception of the competence-based curriculum tended to limit and undermine their CBC practice. For example the wrong conception of CBC is reflected in response 'the part that carry ability and capacity of understanding of the subject content' this implies that, teachers' important role in improving the quality of secondary education was compromised and largely ineffectual. As a result, students would subsequently not be able to develop skills and competencies in solving daily life problems as expected under the CBC approach.

4.2 Teachers training/exposure prior to competence based curriculum implementation

This sub question sought to determine whether teachers received any training in the form of seminar or workshop prior to getting involved in the implementation of CBC. The underlying assumption was in line with Mosha (2012), who asserts that teachers need to be trained and retrained wherever there is curriculum innovation so that they can successfully carry out the innovations. Through the questionnaire, teachers, were asked to indicate whether they got any form of training prior to the implementation of CBC. The findings are summarised in Figure 1.

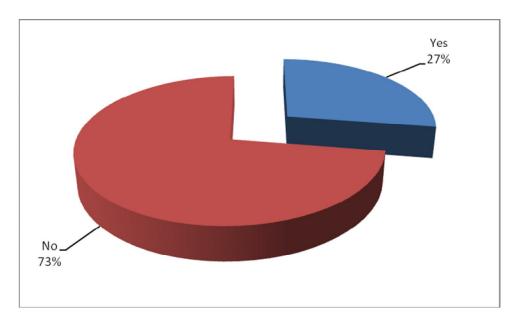


Figure 1: Teachers' training prior to CBC implementation

Figure 1 indicates that the majority of the teachers (73%) did not get any training before the implementation of CBC. Only a few (27%) of the teachers had received such training. This implies

that majority of teachers implemented the competence based curriculum without being oriented with the new approach.

One of the heads of schools interviewed also admitted the absence of training or seminar for teachers regarding competence based curriculum when he said:

No training or seminar from TIE or from the Ministry has been held for teachers about this new curriculum, but the school management last year requested tutors from Morogoro Teachers College to give seminars to teachers when they expressed their need of a seminar on lesson plan preparation. Most of the teachers did not know what to write on the part of competence and reflection in the lesson plan. Unfortunately, we did not manage to pay the facilitators.

In the same view one academic mistress had this to say when she was interviewed:

In our school no training was done for the teachers when they introduced competence-based curriculum, but last year a few science teachers, not all, attended the seminar organised by TIE. Thus most of teachers use experience and knowledge gained from colleges.

On the other hand, when the district secondary education officer was interviewed had this to say about teachers training:

I can say that only few teachers got training and this was due to lack of fund to train all teachers. We expected that those few who attended the training could train their fellow teachers who did not attend the training

For those few who received the training, they were asked to indicate the duration of the training. This question helped the researcher to establish the extent to which teachers benefitted from the training. The training duration is shown in Figure 2:

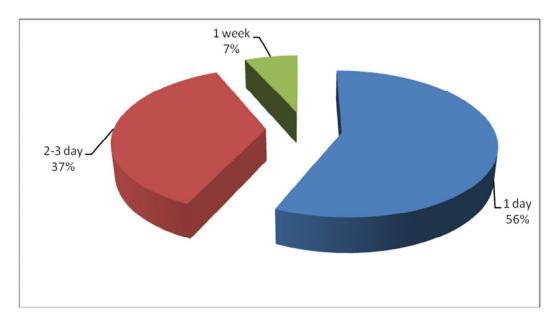


Figure 2: Duration of CBC Training

Figure2 indicates that the duration of the CBC training was too short to equip teachers with knowledge and skills about competence-based curriculum. This may imply that teachers generally had limited or lacked knowledge and skills for the successful implementation of CBC. Since the changes in the curriculum call for changes in instructional approaches, teachers need ample time for in-service training for them to have considerable knowledge and skills to understand competence-based curriculum and be able to implement it confidently, effectively and successfully. During interviews one of the heads of schools disclosed that "for teachers to have a clear understanding of CBC they need at least a training for two months"

The researcher was also interested in finding out how those who did not receive any training implemented CBC. The findings are summarised in Figure 3.

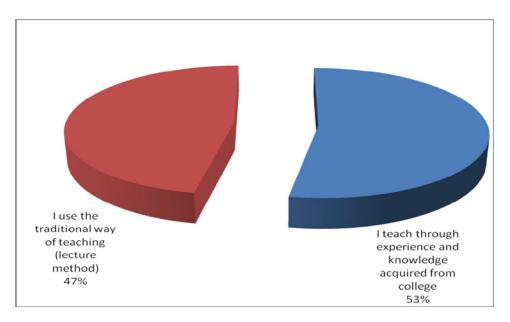


Figure 4. 1: Teaching through experience and use of Traditional Teaching Method

Figure 4.3 indicates that 53% of the teachers who did not receive any specific training on CBC rely on their teaching experience and knowledge acquired from college whereas 47% used traditional teaching methods (lecture).

During interviews, one of the heads of secondary school had this to say:

Competence-based curriculum has brought about difficulties among teachers because there was no formal training to orient them towards the new approach. Even in preparing lesson plans, it has been difficult for teachers, especially in filling the part on competencies measured. Because of that, implementation of competence-based curriculum is not effective as most of the teachers are still using traditional teaching methods.

To verify this statement, the researcher reviewed four teachers' lesson plans of different subjects in each school. The findings established that most of the teachers did not know the competencies to be acquired by the students at the end of the lesson as they were unable to specify them clearly in the lesson plans. It was expected that those few teachers who had attended the training would

demonstrate an ability to prepare an acceptable CBC lesson plans. On the contrary, these teachers were equally handicapped when it came to properly demonstrating these competencies. On the part of competence, one teacher stated that it amounts to the "ability of student to know the oxygen." Another teacher stated, "The students should be able to develop the concept of relation." Another teacher stated, "By the end of the lesson students will understand the effects of colonialism". Some teachers did not write anything on the aspect of competence in their lesson plans. Generally, the study established that teachers lacked knowledge of competence-based curriculum which was reflected in their lesson plan preparation.

These findings affirm that, CBC was not effectively implemented in secondary schools due to the absence or lack of orientation and training among teachers. As a result, lack of appropriate knowledge forced many of teachers to apply traditional methods of teaching or simply relied on their teaching experience. This finding concurs with Mosha (2012), who found that when competence-based curriculum was not effectively implemented there was often the danger of sliding back to traditional teaching methods. These results draw a fundamental question for curriculum developers: How will competence based curriculum improve the quality of secondary education when teachers who are the major implementers lack CBC knowledge and skills?

4.3 Teachers' ability to apply competence based approaches to teaching and learning

This sub question sought to establish the ability of teachers in applying competence-based approaches in the teaching and learning process. Through questionnaires, teachers and students were asked to provide their views on the ability of teachers to apply CBC approaches in the teaching and learning process. The findings are summarised in Figure 4 where the field data were collapsed into two categories of agreement and disagreement for analytical clarity. In this case, the responses "strongly agree" and "agree" were considered as agreement towards a certain statement while "strongly disagree", "disagree" and "don't know" were considered as disagreement (Simbeye, 2012).

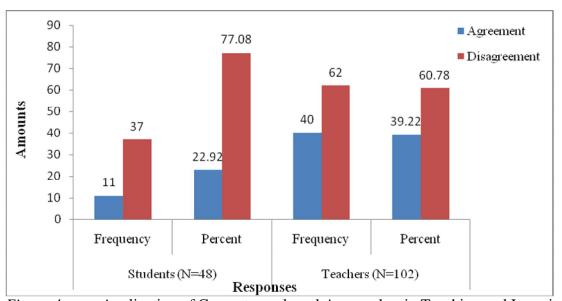


Figure 4: Application of Competence-based Approaches in Teaching and Learning

Figure 4 indicates that the majority of the teachers (60.78%) do not have the ability to apply competence-based approaches in the teaching and learning process while 39.22% of teachers indicated to have the ability of applying competence-based curriculum in teaching and learning. On the other hand (77.08%) of students' responses indicated that teachers do not have ability to apply CBC approaches in teaching and learning process where as (22.92%) of students indicated that teachers have the ability of applying CBC approaches in teaching and learning process.

Responding to questionnaire items regarding the teaching methods that teachers use in the teaching and learning process, majority of students (58.33%) indicated that teachers use lecture method than other teaching methods as it is indicated in Table 4.

Table 4: Teaching Methods/Techniques Teachers use in Teaching and Learning process

| Student responses | | Percent |
|---|----|---------|
| Lecture method (where teacher talks and students listen and take notes) | 28 | 58.33 |
| Brainstorming | 1 | 2.08 |
| group discussion | 10 | 20.83 |
| Question and answer | 8 | 16.66 |
| Total | 47 | 97.91 |
| Not responded | 1 | 2.08 |
| Total | 48 | 100 |

Table 4 shows that teachers use very few teaching methods during the teaching and learning process relying mostly on the lecture method. Other teaching methods such as role play, experiments, field trips, problem solving, debate and observations were not indicated at all by students. This makes teaching and learning ineffective since the competence based curriculum requires the use of variety of teaching methods. This finding concur with Kafyulilo, et al (2012) who argue that if teacher applies only one method of teaching it affects students' learning potential.

Interviews held with heads of school and academic masters/mistresses disclosed that the ability of teachers to apply competence based approaches to teaching and learning is limited by their little pedagogical knowledge and skills in instructional methods that relates to CBC:

It is difficult to tell whether teachers have the ability to use competence-based approaches to teaching and learning, but I can say most of the teachers use teacher centred approaches. Maybe this is because they have not been oriented on how to use the new instructional methods......so I can say they lack pedagogical knowledge that is why they rely on the lecture method.

During classroom observations, the researcher noted that teachers applied only a few of teaching methods. The lecture method and question-and-answers were dominantly used by almost all the teachers observed. Teacher-student interactions were very minimal. The teachers tended to dominate the lessons by explaining concepts, ideas and giving information to the students. Similarly, Banda (2011) found that the majority of teachers did not use constructivist approaches in the teaching and learning process. This implies that students only had a limited opportunity to construct knowledge or learn at their own pace as it is advocated under the competence based

approach. Competence based education entails the application of a variety of teaching methods. This becomes possible only if teachers have the ability to apply a range of such teaching methods.

The researcher also noted that the ability of the teachers to select learning activities which promote critical thinking, problem-solving and inquiry learning skills among students was limited. Teachers' inability to apply competence-based approaches was also confirmed through their lesson plan preparation, as 72% of teachers were unable to specify the competence-based learning activities such as teacher activities, student activities and assessment activities. For example on the student activity part, one teacher stated, "students to mention the characteristics of colonial economy" Most of assessment activities provided to the students required them to reproduce the materials learnt instead of promoting critical thinking, creativity, curiosity and discovery learning. For example one teacher stated in a lesson plan, "What are the characteristics of a physical change? The teacher could have asked students to explain how physical change takes place rather than limiting them to mention the characteristics of physical change.

On the other hand when students were asked to indicate if teachers provided different leaning activities that develop and promote students' thinking ability, 58.34% of students disagreed where as 41.66% of students agreed. This findings would appear to affirm that teachers need more CBC practices for them to be able to apply effectively such approaches in their teaching and learning processes that encourage learners thinking ability, problem solving and self-learning habit.

5. Conclusion and recommendation

In the light of the research findings, the following conclusions are made:

First, the majority of teachers, who are the major implementers of the competence based curriculum, did not have a clear understanding of CBC. In fact, some of them had no idea at all about what CBC means. Moreover, the majority of teachers did not get any training to orient them on competence based teaching approaches. As a result, teachers' ability to apply competence based teaching approaches was very limited. Amid knowledge deficit about competence based curriculum among teachers, it suffices to conclude that the adoption of competence based curriculum in Tanzania has yet to translate into quality secondary education in Tanzania, particularly in the schools under study in Morogoro.

In this regard, the research findings have provided an understanding that teachers' knowledge is central to a successful implementation of CBC. Also, without adequate provision of in-service training to teachers, the CBC implementation was bound to fail deliver the desired outcome. Since teachers are the major implementers of the curriculum, the findings have shown that there is a need to provide more opportunities for their participation during formulation and/or review of the curriculum. Doing so may allow teachers to play their roles effectively in curriculum development and, eventually implementation. Therefore, there is a need for the government through the Ministry of Education and Vocational Training under its department of Tanzania Institute of Education, to conduct immediate in-service training for secondary school teachers in Tanzania on CBC. Seminars and workshops should be conducted frequently and on regular basis to raise teachers' awareness and build their confidence in applying competence based approaches in the teaching and learning process.

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