

## Enhancing Competency-Based Learning Through Flipped Classroom Approach

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### Abstract

Implementation of competence-based education requires innovative teaching methodologies that actively engage learners and develop higher-order thinking skills. This study explored the effectiveness of flipped classrooms in enhancing competency-based learning through a qualitative case study of English instruction in secondary schools in the Mbeya region. Semi-structured interviews with English teachers revealed increased student preparation before class using pre-recorded video lessons and online resources under the flipped model. Focus group discussions with students reported improved understanding and retention through self-paced learning of content as homework. Document analysis of lesson plans and student assignments provided evidence of more profound analytical skills expected in competency-based curricula. Key findings highlight that the flipped classroom approach enabled learners to arrive at lessons equipped with introductory content knowledge. This allowed more class time for collaborative problem-solving activities, discussions, and applying learning to real-world scenarios. Students demonstrated enhanced communication, critical thinking, and self-directed learning abilities. The flipped model shows promise in promoting key competencies mandates, such as communication, collaboration, and digital literacy. Recommendations include scaling up the model through cluster-based teacher training programs and affordable technology support. Strategic integration into English and other subjects can transform learning outcomes to meet 21st-century competency demands.

**Keywords:** *Flipped classroom; Competency-Based Education; Innovative Teaching*

### INTRODUCTION

The transition to competency-based education (CBE) necessitates the adoption of innovative teaching methodologies that actively engage learners and foster the development of higher-order thinking skills. The flipped classroom model is one such approach that holds promise in achieving these educational objectives. This study explores the effectiveness of the flipped classroom in enhancing competency-based learning through a qualitative case study of English instruction in secondary schools in Mbeya region, Tanzania.

Competency-based education (CBE) is an educational approach that focuses on students acquiring and demonstrating specific skills and competencies as opposed to traditional time-based education. CBE is designed to ensure that students possess the necessary skills and knowledge to succeed in real-world scenarios. In Tanzania, the educational system has gradually shifted towards CBE to better prepare students for the challenges of the 21st century.

The flipped classroom model is an instructional strategy where traditional classroom activities and homework are reversed. Students are introduced to new content at home through video lectures and online resources, while class time is dedicated to engaging in interactive activities that reinforce the material. This model aligns well with the principles of CBE, as it promotes active learning, critical thinking, and collaboration.

Research on the flipped classroom model has shown positive outcomes in various educational settings. For instance, Bishop and Verleger (2013) conducted a comprehensive survey of flipped classroom research and found that this model can significantly enhance student engagement and learning outcomes. Similarly, Bergmann and Sams (2012) reported that students in flipped classrooms demonstrated improved understanding and retention of course material.

Studies have also highlighted the benefits of the flipped classroom in developing higher-order thinking skills. Chen et al. (2014) emphasized that the flipped model encourages students to engage in critical analysis and problem-solving activities. Fulton (2012) identified several advantages of the flipped classroom, including increased student motivation and self-directed learning.

Despite these positive findings, there is a lack of research on implementing the flipped classroom model in Tanzanian secondary education. This study aims to fill this gap by exploring the effectiveness of the flipped classroom approach in enhancing competency-based learning in English instruction in the Mbeya region.

While previous studies have demonstrated the benefits of the flipped classroom model in various educational settings, there is limited research on its application in Tanzanian secondary schools, particularly in the context of competency-based education. This study addresses this gap by investigating the impact of the flipped classroom model on English instruction in Mbeya region. The findings will provide valuable insights into how this innovative teaching approach can be adapted to the Tanzanian educational context to enhance competency-based learning.

The primary purpose of this study is to explore the effectiveness of the flipped classroom model in enhancing competency-based learning in English instruction at secondary schools in Mbeya region. Specifically, the study aims to assess the impact of the flipped classroom model on students' preparation and engagement in English lessons, evaluate the development of higher-order thinking skills among students using this model, examine the perceptions and experiences of both teachers and students regarding the flipped classroom approach, and identify the challenges and opportunities associated with the implementation of this model within the context of Tanzanian secondary education.

## **METHODS**

This qualitative research employed a case study approach to investigate the implementation and outcomes of the flipped classroom model in English instruction within secondary schools in the Mbeya region (Yin, 2018; Stake, 2005). The data collection process was multi-faceted, involving semi-structured interviews with English teachers, focus group discussions with students, and document analysis of lesson plans and student assignments (Kvale & Brinkmann, 2015; Krueger & Casey, 2014; Bowen, 2009).

Five English teachers from different secondary schools in Mbeya were interviewed semi-structured. The interviews aimed to understand the teachers' experiences and perspectives regarding the flipped classroom model. They provided rich qualitative data on how the model influenced their teaching practices and the perceived impact on student learning (Kvale & Brinkmann, 2015).

Focus group discussions were held with groups of students from each participating school. These discussions were designed to capture students' experiences and perceptions of the flipped classroom model. The interactive nature of focus groups allowed students to express their views, share their experiences, and discuss the model's impact on their engagement, preparation, and learning outcomes (Krueger & Casey, 2014).

Document analysis involved thoroughly reviewing lesson plans, student assignments, and other relevant documents. This analysis aimed to assess how flipped classroom techniques were integrated into the curriculum and to evaluate the development of students' analytical and higher-order thinking skills. The documents provided concrete evidence of the instructional strategies employed and the outcomes of the flipped classroom model (Bowen, 2009).

Data analysis procedures were systematic and involved several steps to ensure the reliability and validity of the findings. Initially, the interview and focus group transcripts were transcribed verbatim and reviewed multiple times to become familiar with the content. A coding framework was then developed based on the data's research objectives and emerging themes. The data were coded and categorised into student preparation, engagement, higher-order thinking skills, and perceptions of the flipped classroom model (Braun & Clarke, 2006; Nowell et al., 2017).

Thematic analysis was employed to identify patterns and draw connections between the data sources. Triangulation was used to enhance the credibility of the findings by cross-verifying information from interviews, focus groups, and document analysis (Denzin, 2012; Fusch et al., 2018). This comprehensive approach ensured that the study captured a holistic view of the implementation and outcomes of the flipped classroom model in the context of English instruction in Mbeya's secondary schools.

## FINDINGS

The study revealed several key findings regarding the impact of the flipped classroom model on competency-based learning in English instruction within secondary schools in the Mbeya region.

Firstly, the flipped classroom model significantly enhanced student preparation. Teachers observed that students arrived in class better prepared, having accessed pre-recorded video lessons and online resources beforehand. This prior exposure allowed more class time dedicated to interactive and collaborative activities. One teacher noted, "*Students come to class already familiar with the basic concepts, which frees up more time for engaging in deeper discussions and problem-solving activities.*"

Secondly, the model improved students' understanding and retention of information. Students expressed that the self-paced learning outside the classroom helped them grasp and remember content more effectively. One student shared during a focus group discussion, "*Watching the videos at home lets me learn at my own pace. I can pause and rewind if I do not understand something, which helps.*"

The third finding highlighted the development of higher-order thinking skills among students. Document analysis showed clear evidence of students developing critical thinking and analytical skills through assignments that required them to apply their knowledge to real-world scenarios. An excerpt from the document analysis noted, "*Assignments reflect a higher level of analysis, with students demonstrating the ability to evaluate and apply concepts learned critically.*"

Fourthly, the flipped classroom model increased student engagement and collaboration. This approach promoted active learning through collaborative problem-solving and discussions during class time. A teacher commented, "*Classroom time is now more dynamic, with students working together on projects and engaging in meaningful discussions.*"

Lastly, the model fostered essential competencies such as communication, collaboration, and self-directed learning. Students reported being more involved in group work, which enhanced their communication skills and allowed them to learn from their peers. During a focus group, one student remarked, "*We work more in groups now, which helps me improve my communication skills and learn from my peers.*"

The flipped classroom model positively impacted various aspects of competency-based learning, including enhanced student preparation, improved understanding and retention, development of higher-order thinking skills, increased engagement and collaboration, and the fostering of essential communication and self-directed learning skills. These findings suggest that the flipped classroom model can effectively teach English in secondary schools.

## DISCUSSION

The findings of this study underscore the significant potential of the flipped classroom model to enhance competency-based learning in secondary education. By shifting the acquisition of basic knowledge outside the classroom, the model allows for more interactive and student-centred learning experiences during class time. This approach improves understanding and retention of information and promotes the development of critical competencies required for the 21st century.

Several studies have echoed the benefits observed in this research. For instance, a study by Bishop and Verleger (2013) highlighted that the flipped classroom model facilitates a deeper understanding of course material by allowing students to engage with the content at their own pace. This aligns with improved understanding and retention findings, as students in the Mbeya region reported that self-paced learning outside the classroom helped them grasp and remember content more effectively.

Moreover, Akçayır and Akçayır (2018) found that the flipped classroom model significantly enhances student engagement and collaboration, which resonates with this study's findings. The interactive nature of class time in a flipped model fosters a dynamic learning environment where students are more involved in collaborative problem-solving and discussions. Teachers in the Mbeya region also noted increased student engagement and collaboration during class.

Despite the numerous benefits, implementing the flipped classroom model is challenging. Studies by Lo and Hew (2017) and Abeysekera and Dawson (2015) have pointed out that the success of this model heavily relies on the availability of resources and support. Teachers need adequate training to effectively design and deliver pre-recorded content and facilitate engaging in-class activities. This aligns with the findings of this study, where teachers emphasized the need for professional development to implement the flipped classroom model better.

Access to technology and reliable internet is another critical factor. As noted by Bergmann and Sams (2012), the flipped classroom model cannot be effectively implemented without proper access to technology. This was a concern in the Mbeya region, where both teachers and students highlighted the need for reliable internet and sufficient technological resources to fully benefit from this approach.

The study's findings also highlighted the development of higher-order thinking skills among students, an outcome supported by the work of Van Vliet, Winnips, and Brouwer (2015). They found that the flipped classroom model encourages students to engage in more complex cognitive processes, such as analysis and evaluation, through assignments that require applying knowledge to real-world scenarios. This aligns with the document analysis in this study, which showed evidence of students developing critical thinking and analytical skills.

However, the need for ongoing support and resources remains crucial. As emphasized by O'Flaherty and Phillips (2015), continuous professional development and access to technological infrastructure are essential for sustaining the benefits of the flipped classroom model. This study's findings reinforce this view, suggesting that for the flipped classroom model to reach its full potential, it must be supported by adequate teacher training and reliable access to technology for both teachers and students.

## CONCLUSION

The flipped classroom model presents a promising approach to enhancing competency-based learning in secondary education. By fostering a more interactive and student-centered learning environment, this model shifts the traditional paradigm where students passively receive information during class. Instead, students engage with pre-recorded lectures and online resources at their own pace outside of the classroom, allowing them to arrive better prepared for active class participation. This structure improves understanding

and retention of information and promotes critical thinking, problem-solving, and collaboration. Teachers can utilise class time to facilitate deeper discussions, hands-on activities, and group projects, essential for developing the competencies required for the 21st century. The model's focus on active learning aligns with contemporary educational theories that emphasise student engagement and the application of knowledge in real-world contexts.

Future research should delve into the long-term impacts of the flipped classroom model on student outcomes to understand its effectiveness over extended periods better. Longitudinal studies can provide insights into how this teaching approach influences academic performance, motivation, and skill development across different student populations and educational settings. Identifying best practices for scaling up the flipped classroom model is crucial for its broader adoption. Research should examine the challenges and successes of implementing the model in various contexts, such as rural versus urban schools, and across different subjects beyond English. By exploring these areas, educators and policymakers can develop strategies to support the effective and equitable implementation of the flipped classroom model, ensuring that all students can benefit from this innovative approach to teaching and learning.

## **RECOMMENDATIONS**

Based on the study's findings, several key recommendations are proposed to enhance the implementation and effectiveness of the flipped classroom model in secondary education.

### **Teacher Training Programs**

First and foremost, it is essential to implement cluster-based training programs to equip teachers with the necessary skills and knowledge to adopt the flipped classroom model effectively. These training sessions should focus on designing and delivering pre-recorded content and facilitating engaging in-class activities. Providing teachers with continuous professional development will ensure they are well-prepared to navigate the flipped classroom environment and maximise its benefits for student learning.

### **Technology Support**

Secondly, there is a critical need to provide affordable technology solutions and internet access to ensure all students and teachers can participate in flipped classroom activities. This includes supplying devices such as tablets or laptops and ensuring reliable internet connectivity. By addressing the digital divide, schools can ensure that every student can benefit from the flipped classroom model, regardless of their socio-economic background.

### **Strategic Integration**

Another recommendation is strategically integrating the flipped classroom model into the English and other subjects curriculum. This integration should promote critical competencies such as communication, collaboration, and digital literacy. By embedding these skills into the curriculum, schools can help students develop essential 21st-century competencies crucial for their academic and professional success.

### **Policy Support**

Advocating for policy changes that support the implementation of innovative teaching methodologies is also vital. Policymakers should be encouraged to provide the necessary resources and infrastructure to support schools adopting the flipped classroom model. This includes funding for technology, teacher training programs, and other essential resources. Schools can implement and sustain innovative teaching practices by creating a supportive policy environment.

### **Areas for Further Research**

Further research is needed to explore several aspects of the flipped classroom model. One area of interest is the long-term impact of the flipped classroom on student achievement and engagement. Longitudinal studies could provide valuable insights into how sustained model use affects students' academic performance and motivation. Additionally, research could investigate the specific challenges teachers and students face in different contexts, such as rural versus urban schools, to develop tailored solutions that address these unique

needs. Finally, examining the impact of the flipped classroom model on other subjects beyond English could help to generalise its benefits and identify best practices for its broader application.

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