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Flipped Learning Approaches and Student's Academic Performance in Economics in Selected Government Secondary Schools within the Bamenda Municipality, North West Region, Cameroon

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Abstract

Purpose: The purpose of this research was to examine the impact of flipped learning approaches on the academic performance of students in economics in selected government secondary schools within Bamenda I and II municipalities. The study aimed to assess the effects of discussion-oriented flipped learning and the flipped teacher approach. The study involved 88 students from three government secondary schools out of a total of 460 students.

Materials and Methods: The research used a quasi-experimental design and a mixed method sampling technique, with three schools (G.B.H.S Bamenda and Bamendakwe) as the experimental groups and one (G.H.S Bangshie) as the control group. Data was collected over a 3-week research period using pretest and posttest research instruments.

Findings: The results, analyzed using mean scores and ANCOVA, showed a positive impact of flipped learning approaches on the academic performance of economics students compared to traditional methods. The mean scores of all flipped approaches were higher in the experimental groups at significant levels lower than 0.05, leading to the rejection of the null hypothesis.

Implication to Theory, Practice and Policy: The study recommended the integration of discussion-oriented, group-based, and flipped teacher approaches into teaching practices to enhance students' academic performance in economics. It also suggested that the government provide training and support for teachers to develop their skills in using these innovative teaching approaches and recommended that educational institutions prioritize technology integration in classrooms to facilitate effective use of flipped learning approaches. The findings have implications for educational policymakers, teachers, and educational institutions seeking to improve student outcomes in economics and other subjects.

Keywords: *Flipped Learning, Discussion Oriented Flipped Learning Approach, Flipped Teacher Approach, Academic Performance*

1.0 INTRODUCTION

Education has undergone significant changes in recent years due to advances in technology and a stronger focus on student-centered learning. The 21st century has seen the adoption of blended and innovative teaching and learning approaches all around the world, driven by developmental changes and technological improvements. Blended learning involves using a combination of instructional delivery methods, including face-to-face, online, and self-directed learning to deliver content to learners (Olsen, 2003). Blended learning approaches include gamification, flipped classroom/learning, and in-class polls, among others. One of the blended pedagogical approaches that has gained attention in recent years is the "flipped learning approach."

In a traditional classroom, students typically receive direct instruction during class hours and then engage in homework and assignments outside of the classroom to apply their newly acquired knowledge. However, the flipped learning approach reverses this conventional method, with learners actively studying materials before class and then engaging in learning activities like discussions and problem-solving during class (Jung *et al.*, 2018).

The concept of flipped learning has gained considerable recognition in recent years, but its origins can be traced back to pedagogical experiments from the 1990s, when the idea of "inverted classrooms" emerged. Educators began to see the necessity of reversing traditional teaching methods. In the early 2000s, this approach evolved as Baker, Jon Bergmann, and Aaron Sams started experimenting with flipped classrooms, refining their methods over time. A significant development occurred in 2010 when Bergmann and Sams published their book 'Flip Your Classroom', which helped to popularize the concept. Following this, the establishment of the Flipped Learning Network (FLN) in 2012 promoted and supported flipped learning practices. By 2013, the first Flipped Learning International Conference was organized, uniting educators and researchers to exchange best practices and research findings. In 2015, flipped learning became widely recognized as an educational strategy, leading many schools and districts to adopt it.

In flipped classrooms, students learn the material before class, using their classroom time for interactive practice and application of concepts (Verleger, 2013). After class, they reflect on the feedback received, which further enhances their learning. Advocates of flipped learning highlight the higher-order cognitive skills it fosters (Bishop, 2013). This pedagogical approach shifts direct instruction from a group setting to an individual one, transforming the classroom into a dynamic, interactive learning environment where educators guide students in applying concepts and engaging creatively with the subject matter (Bergmann & Sams, 2012). According to Arfstrom (2010), flipped learning focuses on fostering opportunities for active engagement and participation. It’s important to note that the terms flipped learning and flipped classroom can be used interchangeably.

Upon further examination, the assessment of this model using Bloom's Taxonomy revealed that students achieve independent learning in terms of knowledge and comprehension by watching the videos before class. Active learning is demonstrated in terms of application, while analysis, synthesis, and evaluation are realized through participating in classroom activities. This can be achieved by not only adopting a specific flipped learning approach, but also by utilizing a diverse approach (Rutkowshi & Moscinska, 2013). It was also observed that students achieve independent and active learning by accessing learning environments on the internet at their convenience (Baker, 2000). This teaching approach requires students to maintain motivation in implementing self-directed and peer learning to enhance academic performance (Boove *et al.*, 2016).

The discussion-oriented flipped learning approach involves teachers assigning lecture videos, as well as other related resources such as TED Talks and YouTube videos for students to review at home. Class time is then dedicated to discussing and exploring the subject further. This approach is particularly effective for subjects like history, art, or English where context is crucial. Students are given video lectures and external resources as homework, and classroom time is utilized for in-depth discussions and exploration of topics. The flipped teacher learning pedagogy empowers students to control the pace of their learning, catering to diverse learning needs and styles. This approach aligns with the broader objectives of personalized and student-centered education, emphasizing the importance of adapting instruction to individual students. Students prepare content at home using guided objectives, and class time is used for presentations, discussions, and feedback from the instructor. The flipped classroom model prioritizes student-centered learning, promoting active student participation, and often leading to increased engagement and motivation.

Traditional teaching often faces several challenges, including a one-size-fits-all approach that fails to accommodate diverse learning styles and paces (Baker, 2000). It tends to prioritize passive learning, where students absorb information without engaging critically or collaboratively (Kahn Academy, 2011). This model can lead to a lack of motivation and deeper understanding, as students may struggle to connect classroom instruction to real-world applications (Bishop & Verleger, 2013). These are challenges enveloping the instruction of economics in secondary schools in Bamenda municipality. In addition, with traditional teaching curricula may not always reflect local culture and issues, leading to a disconnect between students' lives and their education. Traditional assessment methods often provide minimal feedback, making it harder for students to understand their strengths and weaknesses (Beyoh 2018). Flipped learning addresses these issues by shifting the focus from teacher-centered lectures to active, student-driven learning. In this model, students engage with instructional content at their own pace outside the classroom, allowing for more interactive, hands-on activities during class time, fostering deeper understanding and collaboration among peers (Bergmann & Sams, 2012).

Theoretically, this study adopts Kolb's experiential learning theory of 1984. His theory was influenced by the works of John Dewey, Kurt Lewin, and Jean Piaget (Kolb, 1984). According to Kolb (1984), experiential learning can be defined as a learning process where knowledge results from the combination of grasping and transforming an experience. He suggested that learning requires the acquisition of abstract concepts that can then be applied flexibly in a wide range of situations. His theory consists of two parts. The first part details a four-stage learning cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation, based on the fact that effective learning is a cyclic process that involves experiencing, reflecting, thinking, and acting. This model describes two ways of grasping knowledge (concrete experience and abstract conceptualization) and two ways of transforming experience into knowledge (reflective observation and active experimentation) (Kolb, 1984). The second part includes Kolb's learning styles of diverging, assimilating, converging, and accommodating (Kolb, 1984).

Kolb's Experiential Learning Theory (ELT) recognizes that individuals have different preferred learning styles, which influence their engagement in the learning cycle (Kolb, 1984). Flipped learning supports this by allowing students to access materials in ways that suit their styles, such as videos for visual learners and hands-on activities for kinesthetic learners. This model promotes active engagement, aligning with Kolb's theory by exposing students to concrete experiences before class. In-class time is then dedicated to reflective observation, abstract conceptualization, and active experimentation, fostering a dynamic learning environment

(Kolb, 1984). Flipped learning encourages reflection, as students come prepared to discuss their pre-class experiences, enriching peer interactions and diverse perspectives. Additionally, it emphasizes applying knowledge through real-world scenarios via group projects and problem-solving tasks. Ultimately, integrating flipped learning with Kolb's theory creates a holistic educational experience, guiding students through the experiential cycle to cater to their diverse learning needs. This makes this theory conclusively relevant for the study of the course.

Chen et Al (2017) conducted a study exploring the impact of discussion oriented flipped classrooms on higher order thinking skills. Focusing on college –level economics course, the research found that the flipped model enhanced students' critical thinking and problem solving abilities. By shifting the content delivery outside of class, instructors were able to dedicate more in class time to discussions allowing students to engage deeply with complex economic concepts.

A study was also conducted by Hanieh Shafiee Red and Ali Roohani, 2021 investigating the effectiveness of two technology-enhanced models of the flipped classroom, discussion oriented and role reversal on English language learners' expository writing skills and evaluated the proposed models as a means of teaching /learning writing skills. To these ends, a quasi-experimental design with three intact classes' one control (non -flipped group with 17 EFL learners) and two experimental (discussion –oriented group with 19 and role reversal with 24 EFL learners) was adopted. Pre and posttest essays were used to see the effectiveness of the two models, which used two digital apps. In addition, a researcher-made questionnaire and semi-structured interview were utilized to evaluate the models with regard to writing skills. An analysis of covariance uncovered that the discussion-oriented and role reversal flipped classrooms were effective than non-flipped classrooms. The role reversal outperformed the discussion oriented. This paper concludes with a call for technology integration in writing courses and more investigation into this promising technology –based pedagogy across different language skills.

The effectiveness of flipped learning may vary across different educational levels, subjects, and institutional contexts. While some studies showcase its success in high school settings (Smith & Johnson, 2016), others indicate potential variations in outcomes based on the discipline, as seen in the biology-focused study by Carter and Brown (2017). In addition, most of the studies were based on other countries as opposed to this study based in Cameroon.

Technological tools play a pivotal role in flipped learning, facilitating collaborative activities, knowledge sharing, and communication. The studies highlight the importance of leveraging technology to enhance the collaborative learning experience (Smith & Johnson, 2016). It shares this similarity with this study. The impact of flipped learning was subject-specific, as evidenced by the varied outcomes in mathematics (Brown & Smith, 2018) and science courses (Reynolds et al., 2020). However, it was opposed to this study which is social science inclined. This suggests that educators should tailor their approach based on the unique requirements of different disciplines. The sample population adopted by the different studies reviewed under the empirical literature contrast with the study population adopted in the study. However, majority of the studies adopt the quasi experimental or experimental design just as this study.

In Cameroonian schools, especially in the Bamenda municipality, a mix of traditional and innovative teaching methods is used. However, there is a concern that the education system focuses more on memorization and meeting objectives rather than developing practical skills, leading to minimal improvement in academic performance. Efforts to improve academic outcomes, particularly in Economics, have not been very successful over the past five years. According to the Cameroon G.C.E Board's 2020 booklet, pass rates for Economics were 55.6%

in 2019, 58.5% in 2020, 57.2% in 2021, 59.3% in 2022, and 61.1% in 2023. Despite the emphasis on competence-based and student-centered teaching methods, the lack of significant improvement is concerning.

Moreover, the future of education is becoming increasingly intertwined with technological advancements, highlighting the importance of integrating technology-enhanced learning. The rapid progress of technology and its potential misuse by secondary school students is a cause for concern. In response, innovative methods such as flipped learning have emerged as promising strategies to better engage students in Cameroon's secondary schools. These approaches aim to address gaps in technological improvements, facilitate distance learning, maintain student interest, and cater to diverse learners. It is for these reasons the researcher chose flipped learning as a focus of research. The government has therefore emphasized student-centred teaching and the pedagogy of flipped learning. However, academic performance in Economics has not shown significant improvement in government secondary schools, as indicated in the Cameroon G.C.E Board booklet. This situation raises questions about the effectiveness of flipped learning compared to traditional methods, highlighting the need for further study.

The objective of this study is to evaluate the impact of flipped learning approaches on students' academic performance in economics in selected government secondary schools in the Bamenda I and II municipalities. The specific objectives are: (1) to identify the effects of the discussion-oriented flipped learning approach on students' academic performance in economics, and (2) to determine the effects of the flipped teacher approach on students' academic performance in economics. It wishes to answer the question of: (1) what are the effects of flipped learning approaches specifically discussion-oriented and flipped teacher approach on student's academic performance in economics in some selected government secondary schools within the Bamenda I and II municipality? The study wishes to test if there are significant effects of a discussion-oriented flipped learning approach and a flipped teacher approach on students' academic performance in economics in government secondary schools within the Bamenda I and II municipality.

2.0 MATERIALS AND METHODS

Research Design

This research study used a quasi-experimental research design to investigate the relationship between independent and dependent variables in order to establish a cause-and-effect relationship (Creswell, 2014). The design involved an experimental group and a control group, specifically using a pretest-posttest nonequivalent design. This approach was selected due to the interrupted time series nature of the study, its lack of bias, and its reliability in producing accurate results. The research was carried out in the North West region, with a focus on the Mezam division, particularly within the Bamenda I and II municipalities out of the seven sub-divisions (Bamenda III, Bali, Bafut, Santa, and Tubah (MAOAR, 2013). There are 39 public secondary schools in this division, and three of these schools were chosen for the study.

Population of the Study

The target population for this study included government secondary school students in specific municipalities, encompassing all students attending government secondary schools in the area. The assessable population consisted of all form four students from the selected schools, which were GBHS Bamenda, GBHS Bamendakwe, and GHS Bangshie. These schools had a total of 460 students, with 210, 200, and 50 students respectively. The sample population was made up

of specific form four streams, totaling 88 students, with 36, 32, and 28 students selected from GBHS Bamenda, GBHS Bamendakwe, and GHS Bangshie respectively.

Sample and Sampling Techniques

The study used a multi-stage sampling procedure. Firstly, Bamenda I and II were purposefully selected from the seven subdivisions in Mezam division due to insecurity in the other subdivisions. Schools were then randomly selected from these municipalities by researcher using random sampling without replacements. G.H.S Bangshie and G.B.H.S Bamendankwe were chosen from Bamenda I, and G.B.H.S Bamenda was selected from Bamenda II. All selected schools used flipped learning instructional methods before the experiment. The control and experimental groups were also chosen using random sampling. Random sampling without replacement was adopted. Here, the researcher called three students from the three respective schools to draw from a box of options having labels of control group and experimental group alongside letters of the alphabet A, B and C which respected the labels of intact classes according to the various streams. This was as a result of ensuring that variables do not interact making results invalid. G.H.S Bangshie was the control group, while G.B.H.S Bamendakwe and G.B.H.S Bamenda were the experimental groups, testing the flipped teacher approach and discussion flipped approach, respectively. Intact form four classes (Form A, B, and C) were selected from GHS Bangshie, G.B.H.S Bamendakwe, and GBHS Bamenda to represent the study's sample population with a total of 24, 28 and 36 students respectively. No student was left out.

Instrument and Instrumentation

The study used a pedagogic test to collect data, specifically a pretest and posttest. The pretest assessed students' prior knowledge, while the posttest measured the effectiveness of the flipped learning approach. The study lasted three weeks during the second term and focused on two topics: the location and localization of industries, and population studies. Lessons were held according to the regular timetable, featuring two sessions each week: one lasting 40 minutes and another lasting 80 minutes. This resulted in a total of six lessons delivered over the three weeks to both the control and experimental groups. These topics were selected because at the time of research, these were the various topics to be taught as stipulated in national scheme work of economics.

Before the experiment began, the researcher trained the teacher for the experimental group in flipped learning methods and familiarized him or her with lesson plans. The control group’s teacher was also briefed on the lesson objectives and content to ensure consistent aims across both groups and to mitigate teacher-related biases. Each school implemented a specific flipped teaching method for the experimental group: G.B.H.S Bamenda used a discussion-based approach, G.B.H.S Downtown adopted a group-based method, and G.B.H.S Bamendakwe employed a teacher-directed flipped model. This variety aimed to prevent interaction among the different variables.

In the study, students in the flipped learning group were encouraged to bring electronic storage devices, such as flash drives, to access video lessons before their economics classes the following week. For those without such devices, access to a computer lab was provided. Students with phones were added to a WhatsApp Group where video lessons were shared ahead of class. In class, the teacher first addressed any difficulties students encountered with the video content. To ensure assignment completion, short quizzes related to the videos were administered. Following these assessments, discussions—both individual and group—focused on applying, analyzing, and evaluating the lesson content. The teacher acted as a facilitator, guiding as needed to ensure students mastered the video and audio lessons. While the

experimental group engaged with various flipped learning methods, the control group continued using traditional instructional methods. They followed well-formulated lesson plans provided by the researcher and received the same assessments.

At the end of the three-week session, a posttest was conducted to evaluate the performance of both groups. The pedagogical test was scored out of 30 and included questions on the location and localization of industries, as well as population studies. The face and content validity were assessed by the researcher's supervisor who is an expert in curriculum and Pedagogy, alongside a pedagogic inspector in Economics and a psychologist. Specifically, the researcher took the designed instruments to them who checked if the items had covered the general and specific objectives of the study. All items that were unclear were amended and the irrelevant items were discarded. While the pretest and posttest were different, both addressed the same content and were structured in two main sections: the first capturing demographic information (such as name, class, age, and school), and the second containing the test questions. Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) Version 25, employing ANCOVA under inferential statistics with a significance level of 0.05.

3.0 FINDINGS

This section encompasses the demographic data of respondents, and results presented according to research objectives (Table 1).

Table 1: Summary of Demographic Information of Students

Item	Options	Frequency	%
Sex	Male	43	49.2
	Female	45	50.8
	Total	88	100
Age	12-14 years	24	27.2
	15-18 years	50	56.8
	19 years and above	14	15.9
	Total	88	100
School	GHS Bangshie (C)	24	21.12
	GBHS Bamendakwe (E_1)	28	31.81
	GBHS Bamenda (E_2)	36	40.90
	Total	88	100
Group	Control group (C)	24	21.12
	Experimental group on Flipped Teacher Approach (E_1)	28	31.81
	Experimental group on Discussion Flipped Approach (E_2)	36	40.90
	Total	**88**	**100**

Among other things most of the respondents (50.8%) were females and (56.8%) were within the age range of 15–18 years. The table further gives the number of students in each of the three experimental schools (Group) and the one control school (group).

Effects of the Discussion-Oriented Flipped Learning Approach on Student's Academic Performance in Economics

The first part of the main results focused on the discussion-oriented flipped learning approach to students' academic performance in Economics. The variables considered were the experimental group on the discussion-oriented flipped learning approach (Table 2).

Table 2: Summary of Analysis on the Effects of the Discussion-Oriented Flipped Learning Approach on Students' Academic Performance in Economics

Group	N	Pretest Mean Score	Posttest Mean Score	Mean Gain Score	Decision
Experimental group on Discussion Oriented Flipped Learning Approach (E_1)	28	13.43	21.21	7.78	More Effective
Control group (C)	24	15.75	18.25	2.5	
Total	**52**				

The results reveal that the pretest mean score for students taught using the experimental group (E_1) on the discussion-oriented flipped learning approach was 13.43 while the posttest mean score was 21.21. This gave a mean gain score of 7.78. This means that the discussion-oriented flipped learning approach has a more positive effect in enhancing students' academic performance in economics in government secondary schools within Bamenda I and II municipality compared to the traditional learning approach (control group) which had a mean gain score of 2.5.

Flipped Teacher Approach on Student's Academic Performance in Economics

The second result constituted the flipped teacher approach to students' academic performance. Here, the experimental group and flipped teacher approach were the variables (Table 3).

Table 3: Summary of Analysis on the Effects of the Flipped Teacher Approach on Students' Academic Performance in Economics

Group	N	Pretest Mean Score	Pretest Mean Score	Mean Gain Score	Decision
Experimental group on Flipped Teacher Approach (E_3)	32	15.81	22.16	6.35	More Effective
Control group (C)	24	15.75	18.25	2.5	
Total	**56**				

The results reveals that the pretest mean score for students taught using the experimental group (E1) on the flipped teacher approach was 15.81 while the posttest mean score was 22.16. This gave a mean gain score of 6.35. This means that the flipped teacher approach also has a more positive effect in enhancing students' academic performance in economics in government secondary school within Bamenda I and II municipality compared to the traditional teaching approach (control group) which had a mean gain score of 2.5.

This study was based on the assumptions that there are significant effects of a discussion oriented flipped learning approach on student's academic performance in economics in government secondary schools within Bamenda I and II municipality and that there are significant effects of a flipped teacher approach on student's academic performance in economics in government secondary schools within Bamenda I and II municipality (Table 4).

Table 4: ANCOVA Test on Significance of the Effects of the Discussion Oriented Flipped Learning Approach on Students' Academic Performance in Economics

Dependent Variable: Posttest C and E1						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	373.811[a]	2	186.905	15.039	.000	.380
Intercept	935.456	1	935.456	75.272	.000	.606
PretestCandE1	260.256	1	260.256	20.942	.000	.299
Posttest C and E1	197.077	1	197.077	15.858	.000	.245
Error	608.958	49	12.428			
Total	21464.000	52				
Corrected Total	982.769	51				
a. R Squared = .380 (Adjusted R Squared = .355)						

The results indicate that the F-ratio for the test was 15.858, giving a p-value of 0.000. Thus, the F-ratio was significant at the 0.05 level of significance, suggesting that Ho_1 should be rejected. Therefore, there are significant positive effects of the discussion-oriented flipped learning approach on students' academic performance in economics in government secondary schools within Bamenda I and II municipality (Table 5).

Table 5: ANCOVA Test on the Significance of the Effects of the Flipped Teacher Approach on Students' Academic Performance in Economics

Dependent Variable: Posttest C and E2						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	640.710[a]	2	320.355	30.577	.000	.536
Intercept	1126.934	1	1126.934	107.564	.000	.670
Pretest C and E2	431.446	1	431.446	41.181	.000	.437
Posttest C & E2	206.127	1	206.127	19.675	.000	.271
Error	555.272	53	10.477			
Total	24689.000	56				
Corrected Total	1195.982	55				
a. R Squared = .536 (Adjusted R Squared = .518)						

Lastly, the table indicates that the F-ratio for the test was 19.675, giving a p-value of 0.000. Thus, the F-ratio was significant at the 0.05 level of significance, suggesting that Ho_2 should be rejected. Therefore, there are significantly positive effects of the flipped teacher approach on student's academic performance in economics in government secondary schools within Bamenda I and II municipality.

Discussion of Findings

The study examined the impact of a discussion-oriented flipped learning approach on the academic performance of students in economics in government secondary schools in the Bamenda I and II municipality. The results indicated that the discussion-oriented flipped learning approach had a more positive effect on students' academic performance in economics compared to the traditional learning approach. The mean gain score for the experimental group (E1) was 7.78, while the mean gain score for the control group was 2.5. The F-ratio for the test

was 15.858, with a p-value of 0.000, indicating that the F-ratio was significant at the 0.05 level of significance, leading to the rejection of Ho1. These findings align with previous studies that have shown discussion-oriented flipped learning approaches to enhance students' academic performance. Such approaches have been found to increase student participation, critical thinking skills, and overall satisfaction with the learning experience. The discussion-oriented flipped learning approach enables students to engage deeply with complex concepts and ideas in a collaborative environment, which is particularly important in economics. Notably, this study found that the discussion-oriented flipped learning approach had a more positive effect on students' academic performance than the flipped teacher approach. This could be attributed to the personalized learning experiences and deeper engagement with complex concepts facilitated by the discussion-oriented flipped learning approach.

The study investigated the impact of the flipped teaching approach on students' academic performance in economics in government secondary schools in Bamenda I and II municipality. The results demonstrated that the flipped teaching approach had a significantly positive effect on students' academic performance, with an average gain score of 6.35, making it more effective than the traditional method. The F-ratio for the test was 19.675, resulting in a p-value of 0.000, indicating significance at the 0.05 level and suggesting that Ho2 should be rejected. This means that students taught using the flipped teaching approach outperformed those taught using the traditional approach. Moreover, the findings revealed that the pretest mean score for students taught using the flipped teaching approach was 15.81, while the posttest mean score was 22.16, indicating a significant improvement in students' performance.

The study by Ruhan Karadag (2017) demonstrated that activities based on the flipped teacher approach to flipped learning positively impacted students' academic achievement and attitudes towards mathematics. Additionally, Thomas Keheo et al.'s (2018) study found that the application of the flipped teacher approach improved student satisfaction and bridged the gap between academic developers and learners.

This study examined the effects of three different flipped learning approaches (discussion-oriented, and flipped teacher) on students' academic performance in economics in government secondary schools within Bamenda I and II municipality. The findings revealed that all three approaches significantly improved students' academic performance. Specifically, the discussion-oriented flipped learning approach had a mean gain score of 7.78, indicating that it was more effective in enhancing students' academic performance compared to the traditional teaching approach. Additionally, the flipped teacher approach was found to be more effective than the traditional teaching approach, with a mean gain score of 6.35. This is because students found it more interesting and easier getting acquainted with pre class material with peers than alone which is more flipped teacher based. These peers provided motivation to work through competition and most essentially familiar grounds to build knowledge. This is well supported by kolb’s experiential learning theory which emphasizes concrete experience which in this case is best reinforced through interactions with people.

The ANCOVA tests conducted to examine the significance of the effects of each approach revealed significant F-ratios at the 0.05 level of significance for both approaches, indicating significant differences between the means of the experimental and control groups. These findings suggest that the discussion-oriented and flipped teacher approaches are effective in improving students' academic performance in economics. Overall, the study's results provide strong evidence for the effectiveness of these innovative teaching approaches in enhancing students' learning outcomes in government secondary schools within Bamenda I and II municipality. The findings have important implications for educators and policymakers,

highlighting the need to adopt new and innovative teaching methods that engage students and promote deeper learning. Future research should continue to explore the effects of flipped learning approaches on students' academic performance and learning outcomes in other contexts.

4.0 CONCLUSION AND RECOMMENDATIONS

Conclusion

The study examined the impact of three different flipped learning approaches (discussion-oriented, and flipped teacher) on students' academic performance in economics in government secondary schools in Bamenda I and II municipality. The results showed that all the approaches significantly improved students' academic performance. In particular, the discussion-oriented flipped learning approach had a mean gain score of 7.78, indicating its effectiveness in enhancing students' academic performance compared to traditional teaching methods. Additionally, the flipped teacher approach was also found to be more effective than traditional teaching, with a mean gain score of 6.35. ANCOVA tests revealed significant differences between the means of the experimental and control groups for all three approaches, suggesting their effectiveness in improving students' academic performance in economics. The study's findings have important implications for educators and policymakers, emphasizing the need to adopt innovative teaching methods that engage students and promote deeper learning. Future research should further investigate the effects of flipped learning approaches on students' academic performance and learning outcomes in various contexts. For further research investigating the long-term effects of flipped learning or examining its efficacy in different educational settings or subjects is very visible.

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