

EFFECT OF INTEGRATING YOUTUBE VIDEOS IN TEACHING HISTORY AND GOVERNMENT ON LEARNER ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS, VIHIGA SUB-COUNTY, KENYA

Catherine K. Avedi¹, Evanson M. Muriithi², Peter K. Mulwa³

^{1, 2 & 3}Department of Educational Communication, Technology and Pedagogical Studies,
University of Nairobi, Nairobi, Kenya

¹katieavedi@gmail.com; ²evanson.muriuki@uonbi.ac.ke; ³peter.kyalo@uonbi.ac.ke

ABSTRACT

YouTube social media platform is gaining popularity among the educators in promoting the expected learning outcomes. Integrating YouTube videos into the curriculum can be a transformative way to teach the History and government subject. Teachers can utilise this social media platform when teaching as an innovative way of boosting learning outcomes in the subject. This study aimed at investigating the effect of integrating YouTube videos in teaching History and Government on learner academic performance in public secondary schools in Vihiga Sub-County, Kenya. A purposive sampling technique was used to obtain 4 public schools that teach History and Government in Form 2 and integrate ICT in teaching. The study targeted a sample of 286 Form 2 History and Government learners and 6 subject teachers. The study employed a non-equivalent quasi-experimental design. Learner performance Tests were used to measure learner academic performance while learner questionnaires, lesson observation schedules and teacher interviews were used to collect data. Data was analyzed using Microsoft Excel Office 2019 and SPSS version 27. The results were analyzed using ANOVA to test the hypothesis. The study found a statistically significant difference in learner academic performance between learners exposed to YouTube videos and those who were not. Based on the findings, the study recommends that the Ministry of Education develops favourable policies to promote the integration of social media platforms in the curriculum across all levels of education, teachers should integrate YouTube videos in teaching more frequently in humanity subjects as they improve learners' academic performance and public secondary schools to invest in enough ICT infrastructure to provide Internet connectivity which is essential in integrating YouTube videos in teaching and learning.

Keywords: YouTube Social Media Platforms, YouTube videos, History and Government, Learner Academic Performance

1.0 Introduction

Improving learner's academic performance is the primary goal of education. To achieve this, educators and researchers are exploring innovative teaching methods and technology to enhance academic performance across all subjects. The amount of content that learners can learn within a specific time frame is used to measure their academic performance. Several factors, including the learning environment, teacher and learner characteristics, access to instructional resources, and teaching techniques, influence academic performance, as noted by Abuya, Ngware, Oketch, & Mutisya (2016). The integration of Information, Communication, and Technology (ICT) into education has significantly enhanced the field. This integration has been proven to boost academic performance among learners, which is why teachers are confidently adopting this approach in the classroom. Bester & Brand (2013) asserted that the integration of ICT plays a vital role in improving attention and motivation during learning, ultimately leading to higher academic performance.

As technology continues to advance, it is important to investigate the effect of various ICTs such as social media platforms on learners' academic performance in subjects like History and Government (HAG). Social Media Platforms (SMPs) have become increasingly popular in recent years, revolutionising how people communicate and interact online. Various studies have revealed that such platforms when integrated into teaching and learning, impact the learning outcomes either positively or negatively. For instance, in a study that investigated the effect of the Facebook social networking platform on learning outcomes among computer programming students, Mulwa, Mwanda, Muriithi, & Gatumu (2022) observed a positive impact on the academic achievement of the learners. Similarly, Mulungye, Ngaruiya, Kinyua & Njagi, (2022), in their study on the effect of teaching on Zoom virtual on secondary school learners' performance in History and Government during COVID-19, asserted that learners performed better in their academics when taught through the Zoom learning virtual platform than when taught through the conventional teaching approach. More so, some platforms such as YouTube have emerged as a favourite among educators and learners. With its unique features, such as video uploading, sharing, commenting, liking, subscribing, and viewing, YouTube has become the most widely used instructional resource technology for online videos (DeWitt, Alias, Siraj, Yaakub, Ayob & Ishak, 2013). By taking advantage of these features, teachers and learners can enhance their interaction and collaboration to improve their academic performance.

However, the benefits of integrating YouTube in teaching and learning History and Government in secondary schools and its effect on learner academic performance in Vihiga Sub-County, Kenya has not been documented. While this is the case, teachers and learners of History and Government in the sub-county might be using YouTube videos and other emerging instructional technologies without realising the technology's benefits in effective multimedia-based instructional materials which may have some effect on learner academic performance in the subject.

Numerous studies have been conducted to investigate the relationship between the integration of YouTube videos in teaching and learner academic performance in social media platforms. For instance, Alnoori & Alnoori's (2021) study asserted that watching educational videos positively impacts academic activities and performance, while Koko's (2022) study specifically established

that YouTube videos enhanced academic performance in Mechanical Engineering Craft Practice in Technical Colleges in Rivers State. The study indicated that learners' who watched YouTube videos had better grades than those who did not. Although these studies only focused on college and university learners' and did not concentrate on any particular subject, future research should explore the effect of YouTube videos at lower academic levels and in specific subjects like History and Government. The studies also did not focus on aspects like whether YouTube videos enhanced learner interest and participation during learning hence improving their academic performance. Similarly, in studies on the effectiveness of learning through YouTube on the performance among secondary school learners, in India by Nandi (2021) and the effect of YouTube videos instructional strategy in enhancing learners' performance in Mathematics by gender and birth order by Jonah, Mercy, Billy & Edwin (2022), the studies showed that educational YouTube videos may promote collaborative and active learning hence improving learners' academic performance in Science and Mathematics when learners are allowed to share and discuss what they watch. The studies, however, focused on specifically Mathematics and Science subjects. This current study aimed at bridging these gaps.

With the wide use of YouTube in teaching across the world, this study aimed to determine whether utilising YouTube videos as a teaching tool is equally as effective as traditional face-to-face classroom instruction in improving learner academic performance. Specifically, the study focused on investigating the effect of integrating YouTube videos in teaching History and Government on learner academic performance in public secondary schools in Vihiga Sub-County, Kenya. Despite previous studies having been conducted regarding the effect of social media platforms on learner academic performance, none have concentrated on the effect of integrating YouTube videos in teaching History and Government on learner academic performance in this particular context. This study purposed to fill this gap and conclusively demonstrate the effectiveness of utilising this approach in teaching.

1.1 Problem Statement

History and Government (HAG) is a crucial humanity subject in the Kenyan secondary education curriculum. It equips learners with the knowledge and skills to understand their past and present, making it an essential area of study. However, despite its importance, the content on the topic of "Urbanization" in the main History and Government textbook from the Kenya Literature Bureau (KLB) and other support textbooks for form two, is too abstract to comprehend. Upon analysing the teaching resources, it was observed that there is a lack of or insufficient visual aids in these teaching resources such as pictures and graphics of early and modern urbanization. Sufficient use of visual aids in course books aids in the retention of content among learners in content. This lack of or insufficient visual aids makes it difficult for learners to understand abstract concepts taught. To address this issue, integrating innovative and creative instructional technologies like YouTube videos in the teaching of HAG could significantly improve learners' academic performance in the subject.

While there are several studies which have investigated the importance of integrating new instructional technologies in teaching and learning, none of the reviewed literature focused on the

effect of integrating YouTube videos in teaching History and Government on learner academic performance in public secondary schools in Vihiga Sub-County, Kenya. The available research findings are based on learner academic performance across all subject areas, including the widespread integration of social media platforms at higher education levels. Nevertheless, the results are inconsistent, with some studies indicating a positive effect of YouTube videos on learner academic performance, others reporting no effect, and still others concluding that integrating YouTube videos in teaching has a negative effect on learner academic performance. These findings are not comprehensive since they are based on the general use of all social media platforms in teaching and learning. This is a cause for concern since more research is needed to properly evaluate the effect of integrating YouTube videos in teaching History and Government on learner academic performance.

1.2 Purpose of the study

The purpose of the study was to investigate the effect of integrating YouTube videos in teaching History and Government on learner academic performance in public secondary schools in Vihiga Sub-County, Kenya.

1.3 Objective of the study

The specific objective of this study was to determine the difference in learner academic performance between learners exposed to YouTube videos and those who were not.

1.4 Study Hypothesis

To assess the effect of integrating YouTube videos in teaching History and Government on learner academic performance in public secondary schools in Vihiga Sub-County, Kenya, the following null hypothesis was stated:

H₀₁: There is no significant difference in learner academic performance between learners exposed to YouTube videos and those who were not.

1.5 Significance of the Study

The findings of this study are expected to make a significant contribution to the existing body of knowledge on the way teachers employ social media platforms for educational purposes across all educational levels. This will enable researchers and scholars to deepen their understanding of education and how YouTube videos can be used as a learning tool. Furthermore, these findings will be invaluable to the Kenyan Ministry of Education (MoE) and the Kenya Institute of Curriculum Development (KICD) as they formulate policies to integrate social media platforms, such as YouTube videos, into secondary school curriculum in Kenya. Additionally, the study is expected to enhance the teaching abilities of educators at various education levels. Policymakers, including the Teacher Service Commission (TSC), can use these findings to support teacher retooling programs. Ultimately, these results will encourage educators and scholars to continue exploring how emerging instructional technologies can be integrated into education.

2.0 Research Methodology

2.1 Research Design

This study adopted a quasi-experimental design using a non-equivalent group design of pre-test and post-test. The treatment and control groups in this study were Form Two learners who were taught the topic of Urbanization. The experimental group was exposed to YouTube videos while the control group was taught using the conventional Face-to-Face method. The learners were assessed using Learner Performance Tests (LPTs) consisting of a pre-test at the beginning of the study and a post-test at the end of the study. The quantitative data for the study was obtained by analysing the scores of the learners in the experimental groups and the control groups and making comparisons between the mean scores to determine if there was any statistically significant difference in the performance after the post-test.

2.2 Target Population

The target population was one thousand (1,000) Form Two learners who were studying HAG subjects from three (3) boys' and four (4) girls' public secondary schools in Vihiga Sub-County, Kenya.

2.3 Sample Size and Sampling Technique

For the objective of this study to be achieved, the study targeted a sample of two hundred and eighty-six (286) Form Two learners who participated in the study. A purposive sampling technique was used to select schools that taught HAG in Form Two and were well equipped to integrate ICT into teaching and learning, with ICT laboratories that had stable electricity supply and stable internet connectivity with sufficient speed. From the schools that were purposively selected, 286 Form 2 learners were selected using a simple random sampling technique.

For the quasi-experimental, two (2) boys' and two (2) girls' public secondary schools in Vihiga Sub-County, Kenya were handpicked. Of these, one (1) boys' and one (1) girls' school with approximately one hundred and seventy (170) learners participated in the experimental group while the other one (1) boys' and one (1) girls' school with approximately one hundred and sixteen (116) learners participated in the control group.

2.4 Research Instrument

Data on the difference in learner academic performance between learners exposed to YouTube videos and those exposed to Face-to-Face was obtained using Learner Performance Tests, before treatment (pre-test) and after treatment (post-test). In contrast, questionnaires for the learners, lesson observation schedules and interview schedules were used to collect qualitative data that was used to triangulate the learner's academic performance in History and Government.

2.5 Validity and Reliability

To ensure accurate results, the questionnaires were pre-tested to remove any potential errors. The supervisors provided guidance and assistance to establish the validity of the learner questionnaires, lesson observation schedules and interview schedule questions. The Learner's Performance Tests

also underwent a pre-test and post-test, with the test items being rearranged to create the impression of a different test. To guarantee the reliability and consistency of the scores obtained from both the pre-test and post-test, as well as the data collected from questionnaires administered to teachers and learners, the Pearson correlation coefficient was calculated using a split-half reliability method. This involved dividing the scores obtained from the Learners Performance Test into two and calculating the resulting split-half averages. These averages were then used to compute Cronbach's Alpha (α) reliability coefficient using Statistical Package for the Social Sciences (SPSS) version 27, which determined how consistent the test research instruments were. Since the learner questionnaire had both positive and negative questions, the negative items were reversed before computing Cronbach's Alpha (α) to enhance the reliability of the research instrument. The hypothesis was tested at a 95% level of confidence.

3.0 Findings and Discussions

3.1 Difference in Learner Academic Performance between Learners Exposed to YouTube Videos and those who were not

The main objective of this study was to determine the difference in learner academic performance between learners exposed to YouTube videos and those who were not exposed to the platform during teaching and learning in History and Government subject. A pre-test was administered to control and experimental groups and the results are presented in Table 1 below:

Table 1: Pre-test Scores for Experimental and Control Groups

Group	Frequency	Sum	Mean	variance	SD
Pre-test Experimental Group	170	9733	57.25	167.53	12.94
Pre-test Control Group	116	6907	59.54	121.71	11.03

Table 1 shows that 116 learners from the control group had a mean score (M), $M = 59.54$ and $SD = 11.03$, while the 170 learners in the experimental group had a mean score of $M = 57.25$ and an $SD = 12.94$ from the ideal score of 100.

To determine if there was a significant difference in learner academic performance tests between the control and experimental groups in the pre-tests, the mean scores were analysed using the Analysis of Variance (ANOVA) test. The findings of the test are presented in Table 2 below:

Table 2: Comparison of Scores for the Pre-test Scores for Experimental and Control Groups

One-way ANOVA test						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	361.64	1	361.64	2.427504	0.120336	3.87441
Within Groups	42308.91	284	148.975			
Total	42670.55	285				
P-Value (α) = 0.05						

From Table 2, it can be observed that the one-way ANOVA statistics $F(1, 284) = 2.43$ and the P -value = 0.12 which was greater than the confidence level of $P = 0.05$. This implies that there is no significant difference in a learner's academic performance between the two groups before treatment. The pre-tests had a normally distributed distribution at the start. Therefore, the findings indicate that the two groups were at par at the beginning of the study. The insignificant difference could be due to several factors such as the entry behaviour of the learners, teacher-student ratio, information overload, learning environment, age and gender differences.

The study sought to determine if there were any statistically significant differences in academic performance between learners who were taught using YouTube videos and those who were not. Both groups were taught the topic of urbanization for three weeks. After completion, both the experimental group and the control group were given a post-test which was graded out of 100 percent. The results of the test are presented in Table 3 below:

Table 3: Post-test Scores for Experimental and Control Groups

Group	Frequency	Sum	Mean	Variance	SD
Post-test Experimental Group	170	11960	70.35	113.7682	10.67
Post-test Control Group	116	7017	60.49	116.9825	10.82

Table 3 shows that the learners in the experimental group achieved a mean, of $M = 70.35$ with an $SD = 10.67$. In contrast, the control group had a $M = 60.49$ and $SD = 10.82$. The findings show that the learners in the experimental group performed better after being exposed to YouTube videos than those in the control group who were taught without being exposed to the platform.

To determine if there was a statistically significant difference in learner academic performance between the experimental group and the control group, a one-way ANOVA statistic was conducted. The null hypothesis that " H_{01} : There is no statistically significant difference in learner academic performance between learners exposed to YouTube videos and those who were not" was tested. Table 4 provides a summary of the results.

Table 4: Comparison of Scores between Learners Exposed to YouTube Videos and those who were not

One-way ANOVA test						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	6705.517	1	6705.517	58.27249	0.000	3.87441
Within Groups	32679.81	284	115.0698			
Total	39385.33	285				
P-Value (α) = 0.05						

Table 4, shows a one-way ANOVA statistic $F(1, 284) = 58.27$, $P = 0.000$ and a p -value = 0.000 which was less than the confidence level of $P = 0.05$. This indicates that there existed a statistically significant difference in the academic performance of learners who were taught through YouTube videos and those who were taught through the conventional teaching approach. The null hypothesis,

“**H₀₁**: There is no significant statistical difference in learner academic performance between learners exposed to YouTube videos and those who were not”, was rejected based on the data from the table, and the alternative hypothesis was accepted.

The results of the hypothesis in Table 4 were backed up by qualitative data from learner questionnaires about their perception towards integrating YouTube videos in teaching, as shown in Table 5 below:

Table 5: Response Means of Learners’ Views on the Integration of YouTube Videos in Teaching

Mean Responses for each variable on the integration of YouTube videos			
Variable	N	Mean	SD
Learner interest in the integration of YouTube videos	170	4.0794	1.33745
Learner participation in the integration of YouTube videos	170	4.0735	1.34193
Value of integration of YouTube videos	170	4.0235	1.35088
Learner Satisfaction with integrating YouTube videos	170	4.1059	1.27903
Learner expectation of integrating YouTube videos	170	4.1020	1.30192
The mean of learners' views on the integration of YouTube videos	170	4.0769	1.29759
Valid N (listwise)	170		

Table 5 shows that the variable learner interest has a mean, $M=4.08$ and $SD=1.34$, the variable learner participation $M=4.07$ and $SD= 1.34$, the variable adds value $M=4.02$ and $SD= 1.35$, the variable learner satisfaction $M=4.11$ and $SD= 1.28$, variable learner expectation $M=4.10$ and $SD=1.30$ and the overall mean on the learner's views on the integration of YouTube videos $M=4.07$ and $SD= 1.30$. From the overall mean, $M=4.07$ and $SD= 1.30$, it is evident that the majority of the learners strongly agreed that they have a positive perception towards the integration of YouTube videos in teaching History and Government. This implies that exposing the learners to the integration of YouTube videos in teaching had a statistically significant difference in their academic performance compared to those who were not exposed to such videos. This shows the significant difference in learner academic performance between the learners who were exposed to YouTube videos and those who were not could be attributed to factors such as the interest of the learners, their active participation in the lesson, the value YouTube added to their performance, learner satisfaction and the high expectations learners have in their academics when YouTube videos are integrated into teaching.

During the hypothesis testing, an interview schedule was also conducted for teachers which further supported the findings. The teachers' recorded interview responses revealed that integrating YouTube videos in teaching HAG had a positive impact on the learners. The teachers noted that the YouTube videos enhanced learners' interest and class participation hence enabling them to perform much better in the post-test than in the pre-test.

The findings presented in this study complemented the findings of previous research studies. Ebied, Kahouf, & Rahman (2016), conducted a quasi-experimental study on the use of YouTube videos to enhance computer education skills in learners at Najran University. Ebied, et al. (2016), asserted

that learners who were exposed to YouTube videos performed better than those who were taught using traditional methods such as the lecture method without being exposed to the platform. These findings were further supported by a recent study conducted by Mohammed & Ogar (2023) on exploring the potential of YouTube videos to improve the performance of undergraduate learners in environmental education. Mohammed & Ogar (2023), noted that the experimental group performed significantly better than the control group after the post-test when YouTube videos were integrated into teaching. Additionally, Wawuda (2019) investigated the integration of YouTube videos in teaching English language speaking skills to secondary school learners in Nakuru County, Kenya. Wawuda (2019), opined that learners who were exposed to YouTube videos acquired enhanced communication skills in English and performed better in their post-tests than those who were not exposed to the videos.

4.0 Conclusions

The study set out to investigate the effect of integrating YouTube videos in teaching History and Government on learner academic performance in public secondary schools in Vihiga Sub-County, Kenya. From the data analysis and findings discussed in the previous sections, the study concluded that integrating YouTube videos in teaching History and Government had a positive impact on learners' academic performance. The learners who were exposed to YouTube videos produced better results compared to those who were not exposed to them.

As a result, History and Government teachers should consider adopting this approach in their teaching methods. Equally, it was evident that despite challenges faced during the integration of YouTube videos in teaching, both teachers and learners had a positive perception towards the use of YouTube videos in teaching. Learners who had a positive attitude towards the integration of YouTube videos reported increased interest in attending lessons, and active participation in discussions related to YouTube videos, and felt that integrating YouTube videos added value to their learning, resulting in better academic performance.

5.0 Recommendations

Based on these findings, the researcher recommends that:

- i) The Ministry of Education develop favourable policies to promote the integration of social media platforms in the curriculum across all levels of education
- ii) Teachers should integrate YouTube videos in teaching more frequently in humanity subjects as they improve learners' academic performance.
- iii) Public secondary schools to invest in enough ICT infrastructure to provide Internet connectivity which is essential in integrating YouTube videos in teaching and learning.

6.0 References

- Abuya, B.A., Ngware, W.M., Mutisya, M., & Nyariro, M. (2016). Girls' primary education and transition to secondary school in Nairobi: Perceptions of community members at the onset of an education intervention. *International Journal of Adolescence and Youth*, 22 (3), 349-363. <https://doi.org/10.1080/02673843.2016.1185446>.
- Alnoori, B. S. M., & Alnoori, M. (2021). The effect of YouTube on academic performance. ResearchGate.<https://www.researchgate.net/publication/349350863>.
- Bester, G., & Brand, L. (2013). The effect of technology on learner attention and performance in the classroom. *South African Journal of Education*, 33 (2), 1-15. <https://doi.org/10.15700/saje.v33n2a405>.
- DeWitt, D., Alias, N., Siraj, S., Yaakub, M. Y., Ayob, J., & Ishak, R. (2013). The Potential of YouTube for Teaching and Learning in the Performing Arts. *Procedia - Social and Behavioural Sciences*, 103, 1118-1126. <https://doi.org/https://doi.org/10.1016/j.sbspro.2013.10.439>.
- Ebied, M. M. A., Kahouf, S.A.A.S., & Abdel Rahman, S.A. (2016). Effectiveness of using YouTube to enhance the learning of computers in education skills in Najran University. *International Interdisciplinary Journal of Education*, 5 (3 part 2), 619-625.
- Jonah, F., Mercy, T., Billy, J. & Edwin, B.E (2022). Effect of YouTube videos instructional strategy in enhancing learners' performance in Mathematics by gender and birth order. *Abacus (Mathematics Education Series)*, 47 (1).
- KLB (2017). History and Government form two learners' book fifth edition. Kenya Literature Bureau.
- Koko, J.G. (2022). Effect of YouTube videos on learner academic performance in mechanical engineering craft practice in technical colleges in Rivers State. *International Journal of education and evaluation*, 8 (4), 16-24. <https://doi.org/10.56201/ijee.v8.no4.2022.pg16-24>.
- Mulungye, S., Ngaruiya, B., Kinyua, G. & Njagi, L. (2022). Effect of Teaching on Zoom Virtual on Secondary School Learners' Performance in History and Government during COVID-19. *Journal of Pedagogy, Andragogy and Heutagogy in Academic Practice*, 3(3)- 112- 122.
- Mulwa, P.K, Mwanda, S.O, Muriithi, E.M. & Gatumu, J.C. (2022). Effect of Facebook social networking platform on academic performance in computer programming among learners in public secondary schools, Nairobi City, Kenya: University of Nairobi. <http://erepository.uonbi.ac.ke/handle/11295/162449>.

- Mohammed, I. A., & Ogar, S. I. (2023). Exploring the potential of YouTube videos towards enhancing performance and retention of undergraduate learners in environmental education. *European Journal of Interactive Multimedia and Education*, 4(1), e02302.
- Nandi, R.K. (2021). Effectiveness of learning through YouTube on the performance among secondary school learners. *International Journal of Applied Research*, 7 (3): 103-105.
- Wawuda, G. M. (2019). Integration of YouTube videos in teaching and learning English language speaking skills among secondary school learners in Nakuru county, Kenya. Kenya: Kenyatta University. <https://ir-library.ku.ac.ke/handle/123456789/20006>.