

STUDENTS' AWARENESS OF ENGLISH GRAMMAR USING COLLABORATIVE INSTRUCTIONAL STRATEGY IN BAYELSA STATE.

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Abstract.

The study investigates Effect of Collaborative Instructional Strategy on Students' Awareness of English Grammar in Yenagoa Local Government, Bayelsa State. This study adopted a Pre-test Post-test quasi-experimental design. Purposive sampling technique was used to get a sample size of 75 students from three secondary schools in Bayelsa State. two research questions and two hypotheses guided the study. The instrument for data collection was a Questionnaire, designed by the teacher titled "Questionnaire on Collaborative Strategy on students' Awareness of English Language". The instrument was validated by three subject matter experts and two experts in measurement and evaluation. Pearson Product Moment was used to calculate the reliability of the instruments at 0.81 reliability index. Mean and standard deviation were used to answer the research questions while t-test was used to test the Hypotheses. The result indicated that students taught English grammar using Collaborative instructional strategy performed better. The also indicated that the use of the collaborative Instructional strategy to teach English Grammar slightly improved the awareness level of students. Furthermore, the awareness level of male and female students taught English Grammar using collaborative Instructional strategy differ in favour of the female students. The Hypothesis indicated that there is significant difference in the pretest and post-test awareness level of students taught English Grammar using collaborative Instructional strategy. Also, there is no significant difference in the awareness level of male and female students taught English Grammar using collaborative Instructional strategy. It is therefore recommended that Teachers should incorporate collaborative instructional strategy when teaching English grammar to enhance student' performance, due to its effectiveness in improving the learning outcomes and it is not gender bias.

Keywords: Collaborative, Instructional Strategy, Awareness.

Introduction.

Grammar is of high importance; it is the bedrock of English language. Poor mastery of grammar manifests virtually in all aspects of language use, both in academic writing, essay and summary writing, lexis and structure and answers to comprehension questions. This is however achieved through competent and proficient use of grammar. The quest for competence and performance

in English grammar among secondary school students is a great concern to the researcher. Every language teacher desire for the students to be competent in the language. To achieve this, teachers teaching methods should be evaluated to ensure the right methods are being used in lesson delivery. There are various methods that teachers can utilize to solve these problems of incompetency in the use of English language and improve students' language skills. Therefore, English teachers should endeavour to explore and utilize these great opportunities to enhance students' performance.

Teachers' teaching strategies play an important role in improving student's performance. According to Akinola (2016), a teaching strategy is a plan or strategy that specifies the method teachers will use to accomplish the desired results. It deals with how educators arrange and employ subject matter, instructional aids, and instructional resources to achieve learning goals. Instructional strategies are the same as teaching strategies, pedagogical devices, or methods used by teachers to teach lessons in a way that stimulates permanent behaviour change called learning.

Teaching and learning involve students' activities in order to change their behaviour in a classroom setting instead of being un-attentive during teaching. Collaborative learning is a means of providing opportunities for students to learn together as a team in accomplishing a set of goals or objectives. Collaborative learning helps learners to share their understanding and learning experiences and helps to promote their learning performance as well as for both groups and individuals (Peter, 2013).

Being aware of others' perspectives, emotions, and cultural backgrounds fosters empathy, collaboration, and respectful communication among students and teachers. It promotes a positive learning environment where diverse viewpoints are valued. Awareness of the subject matter, its relevance, and real-world applications enhances students' engagement and motivation. It helps them to connect theoretical concepts to practical situations, making learning more meaningful and memorable. It empowers them to discern between reliable sources and misinformation, fostering independent and informed decision-making.

The purpose of this research is to determine the effect of Collaborative Instructional strategy on students' Awareness of English Grammar in Yenagoa Local Government Area, Bayelsa State. The specific purpose of the study is to:

- 1. examine the difference in the pretest and post-test awareness level of students taught English Grammar using Collaborative Instructional strategy;
- 2. examine the difference in the awareness level of male and female students taught English Grammar using collaborative Instructional strategy;

In order to achieve the objectives of this study, the following research questions and hypothesis were formulated respectively to guide the study.

- 1. What is the difference in the pretest and post-test awareness levels of students taught English Grammar using collaborative Instructional strategy?
- 2. What is the difference in the awareness levels of male and female students taught English

Grammar using collaborative Instructional strategy?

- 3. There is no significant difference in the pretest and post-test awareness scores of students taught English Grammar using collaborative Instructional strategy.
- 4. The mean awareness scores of male and female students taught English Grammar using Collaborative Instructional strategy does not significantly differ.

Literature Review.

According to Shinn, referenced in Onajite (2022), teaching strategies are the complex ways in which a teacher uses discipline, tactics, tools, procedures, and communications to accomplish learning goals. Effective teaching strategies, as noted by Thompson, (2023), help students understand concepts that will aid in problem solving; they also encourage students to collaborate with one another to solve problems using 1CT, for example; they explain their thought processes

when faced with complex problems; they motivate students to come up with coordinated solutions to challenges or tasks in microunits; and they support students in remaining active. Regarding the benefits of implementing diverse pedagogical approaches, Onajite (2022) declared that beneficial actions that assist students in gaining information and making meaningful contributions to the learning activities are what make an effective teaching technique so beneficial. With the right teaching strategy, a teacher can cover material from known to unknown, from simple to complex, base new facts and concepts on students' prior knowledge or experience, and help students understand the purpose of learning by helping them meet predetermined (Daodu, 2014). Corinne (2017) viewed collaborative learning as an educational approach to teaching and learning that aims to engage students as peers to work together in groups in a social and active environment facilitated by a tutor. Collaborative learning therefore fits under the umbrella of peer learning and is one of three learning environments, namely peer tutoring, cooperative learning and collaborative learning. Collaborative instructional strategy has been described in Daniel (2016) as small peer-led temporary discussion groups where members of different/diverse backgrounds meet to select books, make notes and contribute to the upcoming discussion meeting where every member comes up with ideas to share. It is important that students should relate with one another in developing critical thinking skills. Ohia, Isaac and Ochuba, (2015) agrees that social interaction and experiences do shape children reasoning and critical thinking skills. Collaboration can prompt cognitive development among students. It provides a vehicle for students to attain

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necessary acculturation to the school environment. It also provides the knowledge and control children have over their own thinking and learning activity.

The lack of collaboration among students leads to poor academic achievement, low perceptions of greater social support, and low self-esteem (Uwizeyimana et al., 2018). However, the use of collaboration improves the performance of students and encourages teamwork, more retention, and promotes students to be more engaged in the learning process and transfer of knowledge (Nkechinyere et al., 2018). Collaborative learning strategy involves active participation of students in the acquisition of their own understanding of concepts. Ali, Ahmad, and Hussain, (2021) defined Collaborative instruction as an instructional strategy in which teachers work together on specific subject. Collaborative strategy according to Ibeku (2015) is small groups of students who gather to discuss a piece of literature in depth. Bedel (2016) saw collaborative learning as teacher accompanied classroom discussion groups among students or learners, who regularly get together in class to speak about and share their ideas, and comment on others interpretations about the previously determined section, using their role sheets and students' journals in collaboration with each other. Daniel (2016) explained that collaborative learning is a students' equivalent of an adult book club in the secondary school classroom. In collaborative teaching strategy, teachers help each other to solve a particular problem in our daily instructions. Collaborative learning strategy (CLS) is useful in the development and understanding of a new topic. Daodu, outlined the benefits of collaborative strategy as where students bring different backgrounds, experiences, and viewpoints to discussions, enriching learning through diverse perspectives. Collaborative activities promote critical thinking skills as students analyze, evaluate, and synthesize information together. Working in groups allows students to tackle complex problems collectively, encouraging creativity and innovation in finding solutions. Collaboration helps students develop important skills such as communication, negotiation, leadership, and conflict resolution. Students often feel more motivated and engaged when working with peers, leading to improved academic performance (Daodu, 2014). Collaborative learning strategy (CLS) in teaching and learning skills increases students' retention and promotes positive relationship that ensures satisfaction with the learning experience and develops skills.

Awareness plays a crucial role in various aspects of human experience, including personal growth, empathy, decision-making, and mindfulness practices. Thus, Awareness is achieved with continuous effort (Parmar & Thomas, 2020). This can lead to better outcomes in both personal and professional contexts. Awareness is viewed as an attempt to measure experience directly and beyond normal mind which allows us to know consciously above what the mind could even understand or perceive. According to Mohiuddin, Al Mamun, Syed, Mehedi and Su (2018), awareness is an integrated part of practice and should be examined that way.

Awareness plays crucial roles in education which promotes academic success and lifelong learning skills. Self-awareness enhances understanding of one's strengths, weaknesses, learning preferences, and emotions which is fundamental to effective learning. It helps students identify areas for improvement and develop strategies to enhance their learning experience.

Methodology.

This study adopted a Pre-test Post-test quasi-experimental design. Purposive sampling technique was used to get a sample size of 75 students from two secondary schools in Bayelsa State. Two schools in their intact classes (all the students in the two classes) were used for the study. Intact classes were studies so as not to disrupt the normal academic programme of the schools that participated in this study. One school was assigned to experimental group while one school was assigned to control group using a simple random sampling technique. The instrument for data collection was a questionnaire developed by the teacher based on the topic taught (English Punctuation Marks), titled Questionnaire on Collaborative Strategy on students' Awareness of

English Language (QVCSA). The Questionnaire on Collaborative Strategy on students' Awareness of English Language (QVCSA) consists thirty (14) items based on students' awareness of English Grammar when the strategy was used in teaching the lesson. The researcher formulated the questions critically to ascertain the students' awareness of English Grammar when the strategy was employed by asking probing questions. Likert scale of Strongly Agreed, Agreed, Disagreed and Strongly Disagreed were used to score the students responses.

Prior to the introduction of the treatment, the pre-test was given to ascertain the students' level of knowledge. After the treatment which lasted for four weeks, the test items were reshuffled and administered as post-test. To ensure that the instruments measured what it was supposed to measure in terms of wide coverage, accuracy, spellings, language use and to elicit adequate information in terms of objective of the study, research question and hypothesis, the instrument was validated by three subject matter experts and two experts in measurement and evaluation. The corrections and suggestions made by these experts in the context of clarity, ambiguity and the generality of the items were used to modify the research instrument for face and content validity. Pearson Product Moment was used to calculate the reliability of the instruments. The reliability index of 0.81 was obtained and used to determine the reliability of the instrument.

Mean and standard deviation were used to answer the research questions while t-test was used to test the Hypotheses.

Results

1. Research Question 1: What is the difference in the pretest and post-test awareness levels of students taught English Grammar using collaborative Instructional strategy?



Table 1: Mean and standard deviation of the difference in the pretest and post-test awareness level of students taught English Grammar using collaborative Instructional strategy

S/N	Items Pretest (n=35) Posttest (n=35)			
	\overline{x} SD Decision \overline{x} SD Decision	ion		
.1	I can easily distinguish when commas and periods are used2.14 1.00 wrongly.	D	2.57 1.07	A
.2	The learning of punctuation marks is			
	engaging and interesting when the 2.40 1.17 collaborative strategy is used.	D	2.63 1.06	A
.3	The integration of collaborative learning			
	helps me to be aware of the 2.03 1.07 differences between exclamation and question marks.	D	1.97 1.04	SD
.4	Collaborative instructional strategy			
	arouses my interest in learning2.34 0.97 punctuation marks better.	D	2.23 1.09	D
.5	The correct use of punctuation marks 2.23 1.03 is clearer to me now than before.	D	2.60 1.27	A
.6	I am motivated to be actively engaged in the learning of 2.57 0.98 punctuation Marks.	D	1.97 1.04	SD
.7	Collaborative learning enhances my problem-solving skills. 2.00 0.87	D	2.09 1.10	D
.8	working in a group increases my knowledge of punctuation marks. 2.11 0.99	D	1.71 .83	SD
.9	Collaborative instruction makes the			
	learning of punctuation marks more1.77 1.00 enjoyable.	SD	2.03 1.04	D



.10	The collaborative strategy brings clarity					
	to the teaching and 2.1 learning of punctuation marks.	1 1.13	D	2.17	1.01	D
.11	Collaborative learning helps me develop effective communication 2.0 skills.	9 1.31	D	2.20	1.18	D
.12	The lecture method helps me more than					
	a collaborative strategy to easily2.3 indicate the correct/incorrect placement of apostrophes.	1.02	D	2.43	1.04	D
.13	With the use of a collaborative strategy,					
	my awareness of most punctuation2.2 marks has increased.	9 0.99	D	2.57	1.09	A
.14	With the integration of collaborative					
	strategy, I am very much aware of the 2.0 use of ellipses.	0.78	D	2.14	1.14	D
	Grand mean 2.1	7		2.24		

Criterion Mean = 2.5, Mean: 1.0-1.99 = Strongly Disagree (SD), 2.0-2.49 = Disagree (D), 2.52.99 = Agree (A), 3.0-4.0 = Strongly Agree (SA).

Table 1 shows the difference in the pretest and post-test awareness levels of students taught English Grammar using a collaborative Instructional strategy. The pretest response shows that the majority of the respondents disagreed with items 1-8, and 10-14, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 2.0 to 2.49. Also, the majority of the respondents strongly disagreed with item 9, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 1.0 to 1.99.

The post-test response shows that the majority of the respondents agreed with items 1, 2, 5, and

13, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 2.0 to 2.49. On the contrary, the majority of the respondents disagreed with items 4, 7, 912, and 14, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 1.0 to 1.99. Also, the majority of the respondents strongly disagreed with items 3, 6, and 8, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 1.0 to 1.99.

The grand mean of 2.17 for pre-test awareness and 2.24 for post-test awareness implies that the use of the collaborative Instructional strategy to teach English Grammar slightly improved the awareness level of students.

Research Question 2: What is the difference in the awareness levels of male and female students taught English Grammar using collaborative Instructional strategy?

Table 2: Mean score and standard deviation of the difference in the awareness level of male and female students taught English Grammar using collaborative Instructional strategy

S/N	Items Male (n=12) Female (n=	=23)				
	\overline{x} SD Decision \overline{x}	SD	Decision	1		
.1	I can easily distinguish when commas and periods are used wrongly.	2.42	1.08 D	2.65	1.07	A
.2	The learning of punctuation marks is					
	engaging and interesting when the collaborative strategy is used.	2.58	1.00 A	2.65	1.11	A
.3	The integration of collaborative learning					
	helps me to be aware of the differences between exclamation and question marks.	2.00	1.13 D	1.96	1.02	SD
.4	Collaborative instructional strategy					



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	arouses my interest in learning punctuation marks better.	2.17	1.12	D	2.26	1.10	D
.5	The correct use of punctuation marks is clearer to me now than before.	2.50	1.24	A	2.65	1.30	A
.6	I am motivated to be actively engaged in the learning of punctuation Marks.	2.00	1.13	A	1.96	1.02	SD
.7	Collaborative learning enhances my problem-solving skills.	2.00	1.13	A	2.13	1.10	D
.8	working in a group increases my knowledge of punctuation marks.	1.83	0.94	SD	1.65	0.78	SD
.9	Collaborative instruction makes the						
	learning of punctuation marks more enjoyable.	2.00	1.13	D	2.04	1.02	D
.10	The collaborative strategy brings clarity						
	to the teaching and learning of punctuation marks.	2.08	1.08	D	2.22	1.00	D
.11	Collaborative learning helps me develop effective communication skills.	2.17	1.19	D	2.22	1.20	D
.12	The lecture method helps me more than a						
	collaborative strategy to easily indicate the correct/incorrect placement of apostrophes.	2.25	0.97	D	2.52	1.08	A
.13	With the use of a collaborative strategy,						



	my awareness of most punctuation marks has increased.	2.50	1.09	A	2.61	1.12	A
.14	With the integration of collaborative						
	strategy, I am very much aware of the use of ellipses.	2.08	1.17	D	2.17	1.15	D

Grand mean 2.18 2.26

Criterion Mean = 2.5, Mean: 1.0-1.99 = Strongly Disagree (SD), 2.0-2.49 = Disagree (D), 2.52.99 = Agree (A), 3.0-4.0 = Strongly Agree (SA).

Table 2 shows the difference in the awareness level of male and female students taught English Grammar using a collaborative Instructional strategy. The response of male respondents shows that the majority of the respondents agreed with items 2, 5-6, and 13, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 2.5 to 2.99. On the contrary, the majority of the respondents disagreed with items 1, 3, 4, 9-12, and 14, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 2.0 to 2.49. Also, the majority of the respondents strongly disagreed with item 8, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 1.0 to 1.99.

The responses of females show that the majority of the respondents agreed with items 1, 2, 12, and 13, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 2.5 to 2.99. On the contrary, the majority of the respondents disagreed with items 4, 7, 9, 10, 11, and 14, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 2.0 to 2.49. Also, the majority of the respondents strongly disagreed with items 3, 6, and 8, with their mean scores greater than or equal to the criterion mean (2.5) and within the mean range of 1.0 to 1.99.

The grand mean of 2.18 for pre-test awareness and 2.26 for post-test awareness implies that the awareness level of male and female students taught English Grammar using collaborative Instructional strategy differ in favour of the female students.

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Hypothesis 1: There is no significant difference in the pretest and post-test awareness level of students taught English Grammar using collaborative Instructional strategy.

Table 3: Summary of paired t-test of the difference in the pretest and post-test awareness level of students taught English Grammar using collaborative Instructional strategy

Variables	n	X	SD	df	tcal	ttab	Sig.	Decision
Pre-Awareness	35	30.49	13.58	34	2.81	1.96	0.03	Reject: H ₀₂
Post-Awareness	35	31.31	14.31					

Table 3 shows that $t_{cal} = 2.81$, df = 34, and $t_{tab} = 1.96$. Therefore, since $t_{cal} > t_{tab}$ and P < 0.05, then there is significant difference in the pretest and post-test awareness level of students taught English Grammar using collaborative Instructional strategy. Hence, the null hypothesis two is rejected at 0.05 level of significance.

Hypothesis 2: There is no significant difference in the awareness level of male and female students taught English Grammar using collaborative Instructional strategy.

Table 4: Summary of independent t-test of the difference in the awareness level of male and female students taught English Grammar using Collaborative Instructional strategy

Gender	n	X	SD	df	tcal	ttab	Sig.	Decision
Male	12	30.58	14.78	33	0.22	1.96	0.83	Retain: H ₀₄
Female	23	31.70	14.37					

Table 4 shows that $t_{cal} = 0.22$, df = 33, and $t_{tab} = 1.96$. Therefore, since $t_{cal} < t_{tab}$ and P > 0.05, then there is no significant difference in the awareness level of male and female students taught English Grammar using collaborative Instructional strategy. Hence, the null hypothesis four is retained at 0.05 level of significance.

Discussion of Finding:

From the analysis carried out, the result in research question one showed that the grand mean of 2.17 for pre-test awareness and 2.24 for post-test awareness implies that the use of the collaborative Instructional strategy to teach English Grammar slightly improved the awareness level of students. Furthermore, the result hypothesis one showed that there is significant difference in the pretest and post-test awareness level of students taught English Grammar using collaborative Instructional strategy. This study is in line with Kopinska and Azakari (2020) who invested the awareness of the importance of English for students' future. The study improved their awareness of the languages used for travelling, job, and international connections.

The result in research question two showed that the grand mean of 2.18 for pre-test awareness and 2.26 for post-test awareness implies that the awareness level of male and female students taught English Grammar using collaborative Instructional strategy differ in favour of the female students. Furthermore, the result hypothesis two showed that there is no significant difference in the awareness level of male and female students taught English Grammar using collaborative Instructional strategy.

Conclusion

The study investigated the effect of collaborative Instructional strategy on secondary school students' academic performance in English grammar in Yenagoa L.G.A of Bayelsa State.

Consequently, the findings of this study showed that students who were exposed collaborative Instructional strategy demonstrated higher levels of academic performance, in English grammar compared to those who were not.

Based on the outcome of this study, it can be deduced that the use of collaborative Instructional strategy in teaching English grammar in secondary schools can lead to improved academic performance among students.

Recommendations.

Based on the findings, it is therefore recommended that Teachers should incorporate collaborative Instructional strategy when teaching English grammar to enhance student performance, due to its effectiveness in improving the learning outcomes.

Reference.

- Akinola. V.O. (2016) Psychological Issues in teaching science subjects: *Student Review of the Science Curriculum*. London, N R: Corwin.
- Ali, A., Ahmad, N. & Hussain, S. (2021). An experimental study of collaborative instructional strategy (CIS) for teaching mathematics at primary level in Pakistan. *Mathematics Teaching Research Journal*, 13(1), 94-105.
- Adolphus, T., Alamina, J., Aderonmu, T., Education, T., State, R., & State, R. (2013). The Effects of Collaborative Learning on Problem Solving Abilities among Senior Secondary School Physics Students in Simple Harmonic Motion. 4(25), 95–101.
- Aronson, E. (2021). The jigsaw classroom: a personal odyssey into a systemic national problem. In D. Neil (Ed.), *Pioneering perspectives in Cooperative Learning: theory, research, and classroom practice for diverse approaches to CL*, Routledge.

- Bedel, O. (2016) Literature Circles in EFL: How they stimulate the social interaction. Literature Circles in EFL: https://eltdigest.com/literaturecircles.
- Corinne, P. O. (2017). An exploration of a true collaborative learning environment and its challenges, in an Irish higher education classroom, Unpublished thesis submitted in part for the award of doctor of education.
- Daniel, H. (2016): What's the Next Big Thing with Literature Circles? Voices from the middle, 13(4), 10-15.
- Daodu, I1, (2014) The effectiveness of cooperative learning strategy on the academic achievement of chemistry students with different learning styles. International Journal of higher Education 3(2). 132-140.
- Ibeku, N. (2015). Value of mixed mode learning in university and the workplace: Some experiences of university students. Industrial and Commercial Training, 43 (7), 44.
- Johnson, D. W., & Johnson, R. T. (2021). Learning together and alone: the history of our involvement in cooperative learning. In N. Davidson (Ed.), *Pioneering perspectives in Cooperative Learning: theory, research, and classroom practice for diverse approaches to CL*. Routledge.
- Kopinska, M., & Azakari, A. (2020). Exploring young EFL learners' motivation: Individual versus pair work on dictogloss tasks. Studies in Second Language Learning and Teaching, 10(3). 507-630. https://doi.org/10.14746/sslit.2020.10.3.10.
- Mohiuddin, M. Al Mamun, A. Syed, F. A Mehedi M. M & Su Z (2018). environmental knowledge, awareness and business school students' intention to purchase green vehicles in emerging countries. Sustainability. 10(5), 1534.
- Nkechinyere, O. M., Ordu, O. K., Harcourt, P., & Harcourt, P. (2018). Impact of Collaborative Learning Strategy on the Academic Achievement of Senior Secondary School Chemistry Students in Obio-Akpor Local Government Area, 4(2), 11–18.
- Onajite, G. 0. (2022). Teaching strategies employed by teachers for improving students' learning in business education in secondary schools in Delta State. *British Journal of Education*, 10 (3), 85-100.
- Ohia, Isaac and Ochuba, (2015) effect of collaborative and meta-cognitive learning strategies on English Language students' Achievement in Reading Comprehension. Cenresin Publications, www,cenresinpub.org.
- Peter, O.M. (2013). Impact of Collaborative Strategy on Chemistry students' Performance in Abia State, Nigeria. Journal of Education, Methods and Research 3(2), 41-52.
- Parmar S. & Thomas, R. P. (2020) Effects of probabilistic Risk Stimulation Awareness tools. (RSAT) on Aeronautical weather hazard decision making. Frontiers in psychology, Sec. Human-media Interaction. https://doi.org/10.3389/fpsyg.2020.566780.



URL: https://journals.iempsglobal.org/index.php/IJEMPS

- Thompson, S. (2023) Innovative teaching strategies. Retrieved from https://corp.kaltura.com/blog/innovative-teaching-strategies
- Uwizeyimana, D., Yadav, L., Musengimana, T., & Uwamahoro, J. (2018). The impact of teaching
- approaches on effective physics learning: an investigation conducted in five Secondary Schools in Rusizi District, Rwanda. Rwanda journal of Education, 4, 4-14.