

Research Article

An Appraisal of Junior High School Learners Perception in Using Flipped Classroom Model in Learning Social Studies Lessons

George Ebanyenle Ackah ^{1,*}, Hippolyt Dickson Angbing ¹, Selina Gyamfuah ¹¹ Department of Basic Education, University of Cape Coast, Central Region, Ghana*Correspondence: George Ebanyenle Ackah (george.ackah@stu.ucc.edu.gh)

Abstract: The purpose of this study was to examine the perception of Junior High School learners in using flipped classroom model in learning Social Studies in Aowin Municipality in the western north region of Ghana. Qualitatively, descriptive survey design was used for this study. The population of the comprised junior high school students of Enchi Methodist School. Convenient and purposive sampling techniques were used to select both the school and fifty (50) respondents for the study. The main instrument used for data collection was questionnaire. The questionnaire was made up of four-point Likert closed-ended statements that required learners to tick, where appropriate, their responses. The data were analysed using the SPSS software package. The data was edited, coded and analysed into frequencies, percentages with interpretations. The study concluded that, Junior High School Social Studies learners have a generally positive perception regarding the use of the flipped classroom model to learn Social Studies. This implies that, students positively respond to the use of flipped classroom as a teaching method. Since learners have a general positive perception of the use of the flipped classroom, it is recommended that teachers use the flipped classroom as a teaching method while parents are also encouraged to provide their wards with the necessary support such as phones and data to facilitate students' learning.

Keywords: Junior High School, Perception, Flipped Classroom Model, Social Studies**How to cite this paper:**

Ebanyenle Ackah, G., Dickson Angbing, H., & Gyamfuah, S. (2022). An Appraisal of Junior High School Learners Perception in Using Flipped Classroom Model in Learning Social Studies Lessons. *Universal Journal of Social Sciences and Humanities*, 2(4), 210–218. Retrieved from <https://www.scipublications.com/journal/index.php/ujssh/article/view/545>

Received: May 23, 2022**Accepted:** July 19, 2022**Published:** November 30, 2022

Copyright: © 2022 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Flipped classroom is a teaching model where the teacher shifts from being a disseminator to a facilitator or a guide that leads learners to discover new ideas or information [1]. A critical study of this definition reveals that emphasis is placed on the activities of the teacher rather than the learners. His focus is on what the teacher does rather than what the learners do. He thinks the teacher should be someone who systematically leads learners to discover new ideas and not someone who provides learners with knowledge. In all instances, whether the teacher is a disseminator or a guide, there should be a form of information transmission from the teacher to the students when using flipped classroom model. How the transmission is done is what makes the model either flipped or traditional. However, Wenzler's explanation for flipped classroom model did not emphasise whether learners are guided to acquire the knowledge at home or in school [1].

In defining the flipped classroom on his online page, a researcher posits that, the flipped learning is a pedagogical approach in which the first contact with new concepts moves from the group learning space to the individual learning space in the form of structured activity, and the resulting group space is transformed into a dynamic,

interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter [2]

From the foregoing, it has been established that the definition of the flipped classroom cannot be exhausted. The central idea from the various definitions given is that knowledge that used to be introduced to learners in school is now introduced to learners at home in a flipped classroom model. The environment for the deployment of the flipped classroom is vital. Thus, any teacher employing flipped learning approach should consider the environment in which he or she finds herself or himself. [3] That is, where there is the need to use the internet, teachers may make use of them and where there is the need to use televisions and other technological devices, teachers may also use them. In case a teacher opts to use video lectures as a mode of transmitting knowledge to learners via a flipped classroom approach, videos should be short to let students remain focused for a successful implementation of the flipped learning [3]. They recommend a maximum of 15 minutes per video lecture. Teachers can create their video lectures or refer learners to already-made videos on YouTube or any other internet-based video lectures [4].

Teachers' ability to teach creativity and make students become independent thinkers in a flipped classroom approach is another benefit [5]. As teachers carefully create videos and select materials for learners, their creative techniques will be transmitted to learners who in turn, add more to solve problems in the classroom. In so doing, learners shift from overdependence on teachers to independent thinkers. Flipped classroom motivates and sustain the interest of learners. This was revealed in a study that examined the benefits that flipped classroom has in teaching Health Education to year six learners in Malaysia. Every human being acting always has a reason to act (motivation). The reason could come from external or internal sources (extrinsic and intrinsic motivation). Some humans have internal motivation to act, while others are motivated by external factors to act. Given that the flipped classroom presents the teacher with an opportunity to prepare or look for the material(s) to give to learners, it is not surprising that it becomes an external factor that motivates learners to learn [6]. Another importance of using flipped classroom in teaching is its ability to promote a differentiated student learning experience [7]. They are of the view that learners' introduction to the contents outside the classroom individually and subsequent practical problem-solving activities carried out during class meetings enable them to individually achieve academic excellence. The principle of individual difference draws teachers' attention to the fact that every learner is unique and understands issues individually. The flipped classroom provides an opportunity for learners to learn individually outside the classroom and understand issues from a personal perspective before stepping into the classroom. Flipped classroom improve the communication skills of students. Being able to understand what your friend says and your friend understanding what you say is very important in the context of teaching. In teaching and learning, teachers and learners share experiences through verbal means [7]. However, learners who lack effective communication skills struggle to share their experiences in class such that everyone will understand. The traditional teaching models which do not give the learner the time to share experiences during instructional delivery may be attributed to this situation. Researchers indicates that since the flipped classroom offers the opportunity for learners to share their experiences after receiving the content outside the classroom, learners get the opportunity to improve their communication skills [8]. It has been established that the flipped classroom has several benefits ranging from making the student an active participant in a lesson to improving the communication skills of the learner. It is then left unto the teacher to use the strategy effectively to ensure that all these benefits are realised.

1.1. Perceptions of Students on the Use of the Flipped Classroom in Learning

The extent to which people embrace a particular idea or new thing depends to a large extent on the perceptions they have of that new thing or idea. This is confirmed by the Technology Acceptance Model (TAM). To determine whether students would wholly embrace the flipped classroom, the researcher thought it wise to look into studies that involved the perceptions of students who have been introduced to the flipped classroom teaching and learning model [9]. It was found out from electronic database searches that the majority of studies examining the impact of the flipped classroom methodology on students' academic achievements also examined the perception of students of the model. Students who are used to the traditional didactic lectures may initially oppose the concept of the flipped classroom. This is because these learners will have to be responsible for their learning [10]. This was revealed in their study where they sought to find out the perceptions of students on the use of the flipped classroom in teaching. However, a study that examined the perceptions and emotions of students toward learning in a flipped General Science classroom reported a positive perception of students on the flipped classroom concept. The research used a questionnaire to solicit responses from 65 respondents (sophomore) who were undertaking a bachelor's degree in Primary Education at the University of Extremadura. After descriptive analysis, the researchers reported that respondents found the model to be more interactive and hoped all subjects made use of the flipped classroom model. The research reported that over 80% of the respondents said the course was a treasured learning experience with over 91% rooting for other subjects to move along the same paradigm [11].

However, in a study of student and instructor's perceptions of a flipped College Algebra classroom, it was revealed that learners had mixed perceptions on the use of the flipped classroom, especially, where lessons are presented online [12]. While most of the students indicated in their written assignments that they did not like the methodology because it did not allow them to ask questions during the time they watched the video, others also indicated that the ideas they obtained through watching the video helped them to solve practical problems in the classroom [12]. This is an indication that learners may lack the basic assumptions of what the flipped classroom intends to do. In a flipped classroom, learners are to watch the video or read the material given and note down their difficulties and bring them to class for assistance by peers or the teacher. If students are not able to do this, then, there is a tendency that the user of the flipped classroom did not explain the concept well enough to learners. Contrariwise, a survey involving undergraduate Criminology students of the Southern Oregon University revealed that 40% ($N = 32$) of the students said the flipped classroom helped them to solve complex real-world problems [13]. Additionally, 60% of the students described the flipped classroom model (FCM) as helping to become informed and active citizens while 43% also indicated that they learn effectively on their own when the FCM is used. This shows that the flipped classroom model if applied appropriately, makes students active and reflective citizens as envisioned by Social Studies. This helps them to solve problems in their society.

After teaching Science students through the use of the flipped classroom model at the end of the 2016 academic year, a researcher opted to survey to ascertain the perception of students on the use of the flipped learning model. The survey was answered by 54 students in year nine. From the survey, it was reported that 88.9% of the students like being taught through the flipped classroom model. This is because they see the flipped classroom as providing enough opportunity to perform more experiments, work at their own pace and learn collaboratively. The survey also showed that students liked the flipped classroom because it enables them to catch up on lessons that they have missed. In terms of videos, the students reported that they like videos prepared by their teacher and videos that involve teacher writing not only talking. With this perception, teachers who intend to use the flipped classroom need to try their possible best to use videos that involve teacher writing [14].

Furthermore, a study reported a positive student perception towards the flipped classroom methodology [15]. In examining the effects of the flipped classroom on students' academic achievements, the study ascertained the students' frame of reference on the flipped classroom model. While an academic achievement test was conducted for students to determine the impact the flipped classroom had on students' academic achievement, a focused group interview was conducted to obtain the opinions of learners on the flipped classroom model [15]. After descriptive analysis, it was found out that students liked the flipped classroom because it prepared them before coming to class. Some of the students also indicated their likeness of the model because it allowed them to perform a difficult task in class with their friends which made learning more enjoyable to them [15]. Students see the flipped classroom model (FCM) as a methodology that provides learners with a comfortable classroom environment, flexibility in learning and increased interaction among students and teachers [16]. This was revealed through a study looking into the flipped learning as an alternative learning pathway for effective and efficient Technical and Vocational Education and Training at the Koforidua Technical University. The study used interviews to obtain the perception of students and teachers on the use of the flipped learning model and there were positive results produced for which a comfortable classroom environment yielded a mean of 4.8 and a standard deviation of 0.415. In the same study, students and teachers reported that they have flexibility in learning under the flipped learning model ($mean = 4.74$, $SD = 0.657$). This explains that students have a positive perception of the flipped learning model because it offers them the opportunity to learn at their own pace and time. In a cross-sectional survey on the perceptions of undergraduate students in the utilization of the flipped classroom for learning in South-West Nigeria, a study found out that students had a positive perception of the flipped classroom. The students indicated in their study that the flipped classroom improve their learning performance makes learning productive, saves time, increases their reasoning ability, increases their participation in teaching and learning, promotes peer and teacher interaction, arouses and sustains their interest in the subject and also exposes them to relevant educational media [17]. This made the researchers recommend the use of the flipped learning model in teaching and learning.

Few Ghanaians have conducted studies regarding the flipped classroom's usage in Ghanaian schools. Researchers revealed in their study that most teachers in Ghana have not conceptualized the flipped classroom model [18]. Out of the few existing pieces of research on the flip classroom in Ghana, most of them are in subject areas such as Leatherworks and Science than Social Studies [19, 20]. The Social Studies syllabus recommends the use of the constructivists' approach, such as social constructivism and realism to teach the subject, but teachers always resort to using the traditional teaching methods where learners become aware of the content only when they are in school. It has been observed that teachers enter the class, use any of the traditional methods to deliver content, and when their time is almost up, assign tasks to students to perform. This does not offer learners enough time to perform the task as they have to make way for the next subject. Eventually, most of the students take such tasks to the house to complete them. In some instances where learners have the opportunity to do an assigned task in class, they get little time while the teacher may or may not be available to help learners who have difficulty in dealing with the task given.

All these studies have indicated that the students who have been subjected to the flipped classroom treatment have a positive perception of the flipped classroom. From studies reviewed, it could be seen that students' interaction with peers and teachers, collaboration and co-operation in solving problems, ease of access to missed materials and lessons, students' participation in lessons, flexibility in learning, conducive learning environment, having enough knowledge before going to class, just to mention but a few, are the reasons for students' positive perception of the flipped classroom. It is believed that Social Studies students in Junior High schools in the Aowin Municipality would

express similar or different perceptions when subjected to the flipped classroom treatment. The purpose of this study was to examine the perception of Junior High School learners in using flipped classroom model in learning Social Studies in Aowin Municipality in the western north region of Ghana.

2. Materials and Methods

Qualitatively, descriptive survey design was used for this study. The population of the study comprised junior high school students of Enchi Methodist School. Convenient and purposive sampling techniques were used to select both the school and fifty (50) respondents for the study respectively. Convenient and purposive sampling techniques were used because the school and fifty (50) students in the Enchi Methodist junior high school were used as a pilot programme by T-TEL on implementation of instructional materials in junior high schools in Aowin Municipality in the Western North Region of Ghana. The main instrument used for data collection was questionnaire. The questionnaire was made up of four-point Likert closed-ended statements that required learners to tick, where appropriate, their responses. Participants were expected to indicate whether they strongly Agree (SA), Agree (A), Disagree (D) or Strongly Disagree (SD) to a particular statement or item. The premises were on the perception of learners on the use of the flipped classroom in learning Social Studies. There were 15 statements in all for learners to respond to on the perception they had in using the flipped classroom in learning Social Studies. The data were analysed using the SPSS software package. The data was edited, coded and analysed into frequencies, percentages with interpretations.

3. Results

This section presents results on the research question - What is the perception of JHS Social Studies learners on the use of the flipped classroom model in learning Social Studies in the Aowin Municipality? This research question sought the perceptions of the students in the experimental group about the use of the flipped classroom model in learning Social Studies. Fifteen items were found on this section of the questionnaire. The questionnaire was administered to the students to find answers to the research question. [Table 1](#) presents the results.

Table 1. JHS Students' Perceptions on the Use of the Flipped Classroom

Statement	SD (%)	D (%)	A (%)	SA (%)	Mean	Std. Dev.
I feel that watching videos and taking notes from them, contributes to my learning.	0(0)	0(0)	6(12)	44(88)	3.88	.328
I feel that trying my hands on the exercises posed in the videos help my learning.	0(0)	2(4)	15(30)	33(66)	3.62	.567
The practical problems I solve in class after watching videos at home contributes to my learning.	0(0)	2(4)	16(32)	32(64)	3.60	.571
I become attentive while watching a video or reading any material assigned to me by my teacher and that contributes to my learning.	0(0)	1(2)	6(12)	43(86)	3.84	.422
The videos or materials that I watch or read before coming to class help me to ask practical questions.	0(0)	0(0)	5(10)	45(90)	3.90	.303
When I solve problems in class with my friends, I get enough time at home to do my assigned tasks.	2(4)	4(8)	23(46)	2(42)	3.26	.777
I wish all subjects will use this form of learning	0(0)	1(2)	6(12)	43(86)	3.84	.422
I try my best to watch all or more than half of the videos prepared by my teacher.	2(4)	4(8)	17(34)	27(54)	3.38	.805

I think I learn Social Studies better in a flipped classroom than in the conventional classroom.	0(0)	5(10)	17(34)	28(56)	3.46	.676
I get the opportunity to pause, rewind and become clear on concepts in the videos before I proceed.	2(4)	3(6)	13(26)	32(64)	3.50	.789
My interest in Social Studies has changed for the better because I can now reason along the ideas obtained from the videos I watch at home.	0(0)	2(4)	18(36)	30(60)	3.56	.577
Doing homework in class is better because I can ask my friends or my teacher for clarification on questions, I am not clear.	22(44)	18(36)	4(8)	6(12)	1.88	1.003
I only enjoy the flipped classroom when materials are prepared by my teacher himself.	0(0)	1(2)	1(1)	48(96)	3.94	.314
The teacher has enough time to explain issues to me when I approach him for clarity.	1(2)	3(6)	16(32)	30(60)	3.50	.707
Flipped classroom exposes me to relevant educational media that help me to study Social Studies.	3(6)	2(4)	15(30)	30(60)	3.44	.837

Source: Field survey (2021); Mean of means: 3.56; SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree

Each item on the questionnaire had four responses that the respondent needed to make a choice. The responses were coded and ranked accordingly as; strongly agree = 4, agree = 3, disagree = 2 and strongly disagree = 1. A mean less than 1.5 indicated that a lot of the respondents strongly disagreed with the statement. A mean greater than 1.5 but less than 2.5 indicated that the majority of the respondents disagreed with the statement while a mean greater than 2.5 but less than 3.5 showed that many of the respondents agreed to the statement. Finally, a mean greater than 3.5 showed that most of the respondents strongly agreed with the statement.

Table 1 shows the statements that were found on the questionnaire and the results that were produced. From Table 1, a lot of the respondents strongly agreed that they felt watching videos and taking notes from them, contributes to their learning ($M = 3.88$, $SD = 0.328$). Similarly, the majority of the respondents stated that they become attentive while watching a video or reading any material assigned to them by their teacher and which contributed to their learning ($M = 3.84$, $SD = 0.422$). In terms of the exercises and quizzes posed alongside tutorials, most of the respondents indicated that they felt the exercises and quizzes in the videos helped their learning ($M = 3.62$, $SD = .567$). Once more, many of the respondents strongly agreed that practical problems they did in the classroom after being exposed to the content outside the class contributed to their learning ($M = 3.60$, $SD = .571$). The same can be reported of the videos or materials that learners watch or read before going to class. Most of the respondents indicated that such activity helps them to ask practical questions in class ($M = 3.90$, $SD = .303$). A lot of the respondents wished that all subjects employ the use of the flipped classroom ($M = 3.84$, $SD = .422$).

Again, data from Table 1 shows that a sizeable number of the respondents strongly agreed with the statement that they get the opportunity to pause, rewind and become clear on concepts in the videos before proceeding ($M = 3.50$, $SD = .789$). The interest of respondents in Social Studies changed for the better because they could now reason along the ideas obtained from the videos they watch at home ($M = 3.56$, $SD = .577$). Though learners' interest in the subject had changed for the better, many of the respondents indicated that they only enjoy the flipped classroom when materials are prepared by their teacher himself, yielding a mean of 3.94 and a standard deviation of .314. Respondents also claimed that their teacher had enough time to explain issues to them when they approached him for clarity ($M = 3.50$, $SD = .707$).

Table 1 also reveals that many respondents agreed that when they solve problems in class with their friends, they get enough time at home to do their assigned tasks. This

statement produced a mean of 3.26 with a standard deviation of .777. In terms of learners watching videos, a quite huge number of respondents agreed that they tried their best to watch all or more than half of the videos prepared by their teacher ($M = 3.38$, $SD = .805$). On the issue of learning Social Studies better, most of the respondents agreed that they learn Social Studies better in the flipped classroom than in the traditional classroom ($M = 3.46$, $SD = .676$). Again, most of the respondents agreed that the flipped classroom exposes them to relevant educational media that help them to study Social Studies with a mean of 3.44 and a standard deviation of .837. However, a huge number of respondents disagreed that doing homework in class is better because they can ask their friends or teacher for clarification on questions, they are not clear with. This yielded a mean of 1.88 and a standard deviation of 1.003.

4. Discussions

This sub-section also presents discussion of the study. The study examined the perception of the junior high school students on the use of the flipped classroom in learning Social Studies. Most of the items measuring the perception of the students yielded a positive outlook for the flipped classroom. The study, however, revealed that students did not like the idea of doing homework in the classroom. This may be attributed to their acclimatisation to the traditional method as revealed in a similar study that where teachers sometimes punished learners for not doing their homework at home [10]. This is in contradiction to the findings of an earlier study that student interaction in the flipped classroom provides an opportunity for them to be clear on certain issues perplexing them [16]. A study also suggested that the flipped classroom prevents learners from frustrations they face at home in trying to do the homework assigned to them by their teachers and sees it as a great advantage for learners. However, the findings from the questionnaire given to the learners indicated otherwise [21]. The mean of means was calculated to determine the general perception of learners on the use of the flipped classroom. This yielded a mean of means of 3.56 out of four, which is an indication that learners have a positive perception of the flipped classroom in learning Social Studies in the Aowin Municipality. This positive perception of learners spans from the idea of making notes from videos, having an opportunity to pause, rewind before proceeding as found out by an earlier study that flipped classroom having opportunities to solve practical problems in class, exposing them to other relevant technological and educational tools, just to mention but a few [15]. The results from respondents are also in line with what other researchers found out in their study of students' perceptions and emotions toward learning in a flipped General Science classroom that students have a positive perception of the flipped classroom [11]. The positive perception found out from the study suggests that learners embrace the concept flipped classroom in teaching and learning Social Studies. This implies that knowledge is constructed during the learning process and that a student discovers knowledge for him/herself, rather than receiving knowledge, and this inspires the notion of performance-based assessment, hence foster effective classroom discussions and learning tasks in formative assessment [22, 23]

5. Conclusion and Recommendation

The study concluded that, Junior High School Social Studies learners have a generally positive perception regarding the use of the flipped classroom model to learn Social Studies. This implies that, students positively respond to the use of flipped classroom as a teaching method. Since learners have a general positive perception of the use of the flipped classroom, it is recommended that teachers use the flipped classroom as a teaching method while parents are also encouraged to provide their wards with the necessary support such as phones and data to facilitate students' learning.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Author Contributions GEA, HDA and SG; Conceptualization: GEA; Methodology: GEA, HDA and SG; Software: GEA, HDA and SG; Validation: GEA, HDA and SG.; Formal analysis: GEA, HDA and SG; Investigation: GEA, HDA and SG; Resources: GEA, HDA and SG; Data Curation: GEA, HDA and SG.; Writing – original draft preparation: IA.; Writing: GEA, HDA and SG; Visualization: GEA, HDA and SG.; Supervision: GEA, HDA and SG.; Project administration: GEA, HDA and SG; Funding acquisition: GEA, HDA and SG

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors. It was solely funded by the researchers.

Acknowledgments

The authors would like to thank all of the participants of this research.

References

- [1] Wenzler, H. R. (2017). *The flipped classroom model and academic achievement: A pre and posttest comparison groups study*. Northcentral University.
- [2] Talbert, R. (2017). *Flipped learning: A guide for higher education faculty* (1st ed.). Stylus Publications.
- [3] Bergmann, J., & Sams, A. (2012). Flip Your Classroom: Reach Every Student in Every Class Every Day. *International Society for Technology in Education*, 120–190.
- [4] Gelgoot, E. S., Bulakowski, P. F., & Worrell, F. C. (2020). Flipping a classroom for academically talented students. *Journal of Advanced Academics*, 31(4), 451–469.
- [5] Ansori, M., & Nafi, N. N. (2019). English teachers' perceived benefits and challenges of flipped classroom implementation. *Journal of English Education and Linguistics Studies*, 5(2), 211–228.
- [6] Gengatharan, K., Rahmat, A., & Razak, A. N. A. (2020). Importance of using a flipped classroom to teach Health Education during movement control order (MCO) in Malaysia. *European Journal of Molecular & Clinical Medicine*, 7(2), 5964–5971.
- [7] Torres, K. M., Tackett, S., Arrastia-Chisholm, M. C., & Landau, J. (2021). Totally flipping instruction advantages, alternative models, and challenges of a flipped classroom in K-12 and higher education. *Emerging Realities and the Future of Technology in the Classroom*, 3(2), 158–175.
- [8] Pourmand, P., Pudasaini, B., & Shahandashti, M. (2021). Assessing the benefits of flipped classroom in enhancing construction students' technical communication skills. *Journal of Civil Engineering Education*, 147(1), 04020010.
- [9] Cabero Almenara, J., Romero Tena, R., Llorente Cejudo, M. D. C., & Palacios Rodríguez, A. D. P. (2021). Academic performance and technology acceptance model (TAM) through a flipped classroom experience: Training of future teachers of primary education. *Contemporary Educational Technology*, 13 (3), 7353.
- [10] Rotellar, C., & Cain, J. (2016). Research, perspectives, and recommendations on implementing the flipped classroom. *American Journal of Pharmaceutical Education*, 80(2). <https://doi.org/10.5688/ajpe80234>
- [11] González-Gómez, D., Jeong, J. S., Airado Rodríguez, D., & Cañada-Cañada, F. (2016). Performance and perception in the flipped learning model: An initial approach to evaluate the effectiveness of a new teaching methodology in a General Science classroom. *Journal of Science Education and Technology*, 25(3), 450–459.
- [12] Jaster, R. (2017). Student and instructor perceptions of a flipped College Algebra classroom. *International Journal of Teaching and Learning in Higher Education*, 29(1), 1–16.
- [13] Burke, A. S., & Fedorek, B. (2017). Does “flipping” promote engagement?: A comparison of a traditional, online, and flipped class. *Active Learning in Higher Education*, 18(1), 11–24.
- [14] Griffiths, S. (2017). The students have spoken - Students' perception of flipped learning. Flipped Learning Network. https://flippedlearning.org/learning_culture/student-perceptions-of-flipped-learning/
- [15] Cabı, E. (2018). The impact of the flipped classroom model on students' academic achievement. *International Review of Research in Open and Distance Learning*, 19(3), 202–221.
- [16] Akuffo, B., Okae-Adjei, S., & Dzisi, S. (2019). Flipped learning as an alternative learning pathway for effective and efficient technical and vocational education and training (TVET): Evidence from Koforidua Technical University – Ghana. (No. 9; 215).
- [17] Onojah, A. O., Olumorin, C. O., Adegbija, M. V., & Babalola, T. O. (2019). Perception of undergraduate students on the utilisation of flipped classroom for learning in South-West Nigeria. *Malaysian Journal of Distance Education*, 21(1), 95–112.

-
- [18] Yeboah, R., Ampadu, E., Ahwireng, D., & Okrah, A. (2020). Knowledge and usage of flipped classroom instructional strategy: The views of Ghanaian teachers. *Journal of Education and Learning*, 9(3), 57–65.
- [19] Mensah, P. C., Yeboah, A., & Adom, D. (2017). Flipped classroom model as an instructional tool for effective teaching and learning of Leatherwork. *American Scientific Research Journal for Engineering, Technology, and Sciences*, 30(1), 195–212.
- [20] Quansah, F., Donkoh, S., & Osei, M. A. (2018). Using flipped classroom approach to assist pupils to understand the concept of density. *International Journal of Multidisciplinary Education and Research*, 3(6), 13–18.
- [21] Rohina, R. (2018). Flipped Classroom - Meaning, importance & advantages. <https://www.proschoolonline.com/blog/flipped-classroom-learning-meaning-importance-advantages#:~:text=Flipped Classroom brings in sweeter fruits of advantages, wherein both teachers and students can collaborate actively.>
- [22] Bekoe, S. O., Eshun, I., & Bordoh, A. (2013). Formative assessment techniques tutors use to assess teacher-trainees' learning in Social Studies in Colleges of Education in Ghana. *Research on Humanities and Social Sciences*, 3(4), 20-30.
- [23] Eshun, I., Bordoh, A., Bassaw, T. K., & Mensah, M. F. (2014). Evaluation of social studies students' learning using formative assessment in selected Colleges of Education in Ghana. *British Journal of Education*, 2(1), 39-48.