

THE INFLUENCE OF LEARNER-CENTERED TEACHING STYLES ON STUDENTS ACADEMIC ACHIEVEMENTS AMONG SECONDARY SCHOOLS OF ARUMERU DISTRICT, TANZANIA

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Abstract

The purpose of this study was to determine the influence of learner-centered teaching styles on students' academic achievements in the secondary schools of the Arumeru district. The study was guided by three research questions that sought to establish the learner-centered teaching styles applied by the teachers, and the students' academic achievement as well as to determine the relationship between the learner-centered teaching styles and students' academic achievement. The study adopted a quantitative approach using a descriptive correlation design. The study collected data through a self-administered questionnaire that was distributed to 350 students from 5 secondary schools in Arumeru District. Out of 350 questionnaires, 322 were filled and returned for data analysis. The responses were coded and analyzed with the help of the Statistical Package for Social Sciences by descriptive and correlation statistics. The study established that teachers in the investigated secondary schools apply learner-centered teaching styles. The study also found a positive yet weak relationship between learner-centered teaching styles applied by the teachers and student's academic achievement. Therefore, teachers should adopt learner-centered approaches to enhance the academic achievement of the students.

Keywords: Learner, teaching approach, academic, achievement, delegator, facilitator.

INTRODUCTION

The primary purpose of teaching at any level of education is to bring fundamental changes in the learner. Teaching encompasses course design, course management and methods of teaching, provision of learning opportunities as well as assessment and feedback to students (Saritaş, 2016). Teaching is also concerned with providing students with opportunities to learn. It is an intentional activity and an interactive process involving teachers, students, tasks and the process by which the teacher imparts knowledge, skills, and attitudes to the students (Ellis, 2015).

Pyng and Rashid, F(2014) argue that teaching is an attempt to assist students in acquiring or changing skills, knowledge, ideas, attitude or appreciation of knowledge. Therefore, teaching is a set of processes

and procedures used by the teacher to emphasize aspects of student's development such as physical, spiritual, emotional, social, and cognitive aspects. For teaching to be realized, teachers need to use appropriate teaching styles that will make students grasp the intended concepts. When teachers apply the proper teaching styles which match the students' needs, the students will find the subject interesting and their academic achievement will be enhanced (Awla, 2014).

According to Kitti, (2014) teaching styles refer to a variety of ways in which a teaching task is managed to facilitate the learning process. This means teaching styles are what the teacher attempts to impart the desired learning or experience. Teaching styles are categorized into two major groups which are teacher centered and learner-centered. The former involves

those styles in which a teacher is a major participator in the process of teaching while learner-centered involves those teaching styles which allow the participation of students in the process of learning (Gilakjani, 2012). Despite the fact that, every teacher has his/her preferred style of teaching, a number of studies worldwide have advocated for learnercentered teaching styles.

For example, Khalid, Akhter and Hashmi, (2017) from Pakistan showed that the teaching styles employed by the investigated teachers during the teaching process were mostly, facilitator and delegator. The study further established that students were highly involved in the learning process and the teaching styles applied by the teacher positively correlated with students' achievement. Also, a study conducted in China, by Liu and He, (2014) note that the teacher-talk-dominated classrooms emphasize a unidirectional relationship construction and the students' differences are neglected. They further note that this approach cannot encourage student participation.

Another study by Nja, Umali, Asuquo and Orim, (2019) investigated the influence of teaching styles on academic performance among Science Education undergraduates of the University of Calabar, Nigeria. The findings revealed that there was a positive correlation between teaching styles that were mainly learner-centered and the academic performance of students. This means that the teaching styles used by the teachers allowed and enabled the students of the University of Calabar, Nigeria to perform better in their studies.

In her study, Kitti (2014) from Tanzania revealed that the most effective teaching methods were demonstration followed by question and answers and then brainstorming (Learner-centered). She argued these styles highly involved the learners and, they enabled teachers to understand the strengths and weaknesses of individual students.

Academic achievement is defined as the extent to which students attain their short or long-term educational goals commonly measured through examinations or continuous assessments (Collin 2007 as cited by Ngussa and Gundula, (2019). Ngussa and Gundula further mention performance in annual examinations, quizzes, tests, and assignments, as well as obtaining the schools set average marks as some

parameters that can be used to determine the student's academic achievement.

To facilitate the process of knowledge transmission, teachers should apply appropriate teaching styles that best suit specific objectives and level exit outcomes (Ganyaupfu, 2014). Until today, questions about the effectiveness of teaching styles on students' academic achievement have consistently raised considerable interest in the thematic field of educational research (Kangu, 2015). Moreover, research on teaching practices constantly endeavors to examine the extent to which different teaching styles enhance the academic achievement of the students. Quite remarkably, regular poor academic achievement by the majority of Tanzanian secondary schools (including secondary schools of Arumeru (district) students is fundamentally linked to the application of ineffective teaching styles by teachers to impart knowledge to students(Kitti,2014). Substantial research on the effectiveness of teaching styles indicates that the quality of teaching is often reflected by the academic achievements of students. According to Ganyaupfu, (2014), teaching is a process that involves bringing about desirable changes in learners to achieve specific outcomes. For the style used for teaching to be effective, Gill, (2020) maintains that teachers need to be conversant with numerous teaching strategies that take recognition of the magnitude of the complexity of the concepts to be covered.

The researcher in this study sought to identify the learner-centered teaching styles that are applied by the teachers of Arumeru district secondary schools and to examine the effects that these applied teaching styles have on the academic achievement of the students. This study sought to give answers to three research questions while having one null hypothesis. The research questions were:

- i. What are the learner-centered teaching styles applied by the secondary schoolteachers of Arumeru districts?
- ii. What is the academic achievement of the secondary school students in Arumeru district?
- iii. Is there a significant relationship?between the learner-centered teaching styles applied by the teachers andstudents' academic achievement in secondary schools of Arumeru district?

Hypothesis of the study

H0: There is no significant relationship between the learner-centered teaching styles applied by the teachers and students' academic achievement in secondary schools of Arumeru district.

RESEARCH METHODOLOGY

Research Design

The researcher in this study employed a quantitative research approach using descriptive-correlational survey research designs. Research design as defined by Kothari (2004) is an arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose.

While descriptive aspect described the existing situation in the field regarding the learner-centered teaching styles applied by the teachers in the classroom as well as the description of the academic achievement of the students, correlation aspect tested interrelationships between learner-centered teaching styles applied and the students' academic achievement.

Population of the Study

The targeted population of this study was five secondary schools with a population of 2,793 students studying in Form I to Form IV.

Sample Size of the Study

The study derived its sample size from the population of 2,793 students studying in five secondary schools in Arumeru district. The sample size being determined by using Taro Yamane (1970) mathematical formula as:

$$\begin{aligned}n &= N / (1 + N(e)^2) \\n &= 2793 / (1 + 2793(0.05)^2) \\n &= 2793 / (1 + 2793(0.0025)) \\n &= 2793 / (1 + 6.9825) \\n &= 2793 / 7.9825 = 349.89 \approx 350 \\n &= 350\end{aligned}$$

From the population of 2,793 students, 350 students were sampled to participate in this study. Simple random sampling using ballot papers was used to select a sample of students. The researcher provided pieces of white paper to students and on those pieces of white paper and fold them, then request them to write their names

then the folded written pieces of paper were put into a box, the researcher shook the box and picked from its piece of papers until the number of respondents was met from a particular school, the selected names were taken as the selected respondents. This process was conducted in all the schools. The researcher chose this sampling technique to avoid biases that would have occurred if any other technique was used.

Data Collection Methods

The study collected data using the questionnaires method of data collection. Questionnaires were used to collect data from selected respondents. Self-administered questionnaires were used to obtain opinions and experiences of the respondents with regards to influencing learner-centered teaching styles on students' academic achievements. Closed item questions were constructed using a four-point scale whereby respondents were asked to provide their opinions among the choices ranging from Strongly Disagree, Disagree, Agree, and Strongly Agree.

The questionnaires method of data collection was preferred because they were not only easy to distribute to a larger sample, but also guaranteed anonymity of respondents and reduce researcher's bias on data (Mark & Janina, 2012). The questionnaire instrument in this study is composed of two sections.

The first section included questions about general demographic information of respondents such as age and gender. The second section included questions, which are connected to the research objectives. The questions in this section of the questionnaires focused on exploring the perceptions of students on the learner-centered teaching styles used in their classroom and as well as their perceptions on their academic achievement.

Data Analysis and Interpretation

Quantitative procedures were employed to analyze data. Quantitative data that were collected by questionnaires were analyzed using Statistical

Package for Social Science (SPSS Version 26) software using descriptive statistics including frequencies and percentages.

Demographic characteristics of the respondents were analyzed by using descriptive analysis by the means of frequency and percentage.

The first and second research questions which sought to establish the learner-centered teaching styles applied by the teachers and to establish the students' academic achievement respectively were analyzed by using descriptive statistics in terms of mean scores, whereby mean scores were interpreted under the following criteria of four-point scale: 1.00-1.49 = Strongly Disagree, 1.50-2.49 = Disagree, 2.50- 3.49 = Agree and 3.50-4.00 = Strongly Agree.

The third research question which sought to examine the relationship between the learner centered teaching styles applied by the teachers and students' academic achievement in secondary schools of Arumeru districts were analyzed by inferential statistics namely Pearson product Moment Correlation Coefficient. The nature of the existing correlation was either positive or negative and was interpreted under the following criteria: $\geq .70$ = strong relationship, $\geq .50$ = moderate relationship and $\leq .50$ = weak relationship.

Validity

Two education experts from the Faculty of Education at the University of Arusha were consulted to check the questionnaire against the research questions that guided the study. the experts gave comments which were considered for acceptable validity of the instrument.

Reliability

Reliability is used to measure the extent to which research instruments produce similar results even after they are replicated consistently. Reliability is ensured by repeating testing a similar study population over time. Reliability is also ensured by the consistency of responses (Heale & Ywycross, 2015). The researcher conducted a pilot study to test the reliability of research instruments by using the Cronbach's Alpha technique. The questionnaire instrument was administered to 30 secondary school students. Afterward the results were analyzed using

SPSS instruments to check reliability. A reliability score of .748 was obtained for the questionnaire. With regards to reliability, Taherdoost, (2016) argue that reliability of 0.6 is minimally accepted and reliability of 0.75 is regarded as excellent. Based on this ground, the results produce a reliability of .748, the questionnaire instruments were regarded as reliable.

DATA ANALYSIS, RESULTS AND DISCUSSIONS

Demographic Characteristics of the Respondents

Out of 350 distributed questionnaires, 322 questionnaires were filled and returned. The demographic data for this study sought to assess the nature of the respondents of this study. On the demographic information, the questionnaire forms are intended to assess the gender of the respondents as well as the number of students in the classes of the respondents. The finding obtained is as shown in Table 1.

Table 1: Demographic Information of the Respondents

		Frequency	Percentage (%)
Gender	Male	175	54.3
	Female	141	43.8
Number of Students in Class	20 and Below	4	1.2
	21 - 40	73	22.7
	Above 40	222	68.9

Source: Field Data (2021)

From Table 1 above, it is observed that 175 (54.3%) of the sampled students were male, while 141 (43.8%) were female. Despite the fact that male students were slightly higher than female students, the proportional of the percentage above indicates that there was a proportional representation of both genders in the process of data collection which helped to capture data that address each group of gender in this study. From Table 1, it can also be seen that majority of the respondents (222 which is 68.9%) reported their classes to have 40 and above students, followed by those who reported their classes to have 21 to 40

students (22.7%) and the minority (4 respondents who form 1.2% reported the number of the students in their class to be less than 20 students. With 68.9% reporting their classes to have 40 and above students.

therefore, this situation can in one way or the other affect the teaching style that the teachers apply during the teaching process thus in one way or the other affect the academic achievement of the students

Descriptive Analysis of the Learner-Centered Teaching Styles Applied by the Teachers

Teaching styles refer to a variety of ways in which a teaching task is managed to facilitate the learning process (Kitti, 2014). This means teaching styles are how the teacher attempts to impart the desired learning or experience.

The first research question of this study sought to identify the learner-centered teaching styles that are applied by the secondary school teachers of Arumeru district. The investigated learner-centered teaching styles were the Delegator teaching style and the Facilitator teaching style.

Table 2: Descriptive Statistics on Delegator Teaching Style

Questionnaire Statement	Mean	Interpretation
Teachers encourage student-self learning	3.24	Agree
Teachers encourage students to ask questions on complex issues they don't understand	3.34	Agree
Students are required to prepare and give an individual presentation to the class	3.25	Agree
Teachers ask students to explain their answers	3.38	Agree
The teachers expect students to work through challenging tasks without giving up	3.03	Agree
Teachers encourage students to work independently on textbook or worksheet questions	3.00	Agree

Table 2 above, it can be seen that with a mean score of 3.37 students agreed that their teachers assign students with the task to be done in groups. This implies that students are participating in the learning process by working on the assignments given by their teachers, that is the teacher integrates the students into the lessons by giving the students a room to discuss and present their ideas on subject matters in their learning groups. This implies that learners are at the center of the learning process.

With a mean score of 3.02, the students agreed that teachers act as observers as the students perform the lessons. This implies that students are involved to perform the lesson without being interrupted by their teachers. It also implies that the students are given the freedom to present their ideas under the observation of their teacher. Teachers acting as observers while students perform the lesson suggests that teachers are practicing delegator teaching style during the teaching process.

Regarding whether students ask questions during class sessions or not, a mean score of 3.40 was obtained, suggesting that the students who were the respondents agreed that they ask questions during class sessions. This implies that the teachers apply delegator teaching styles which allow the students to ask questions during the class session, unlike

authority teaching styles in which the teachers give a one-way lengthy discussion on the topic without questions from the students (Ahia, 2018). The findings on how the teachers assist the students, with a mean score of 3.37 students agreed that teachers give the student the help they need when they are stuck. This implies that the teachers give room for students to present the challenges they face during their studies and the teachers are willing to help the students with those challenges and difficulties.

Regarding the role that teachers play to ensure that all students are learning, a mean score of 3.31 was obtained. The obtained mean score of 3.31 suggests that the teachers get involved with monitoring and enabling the students to learn.

The findings on whether the teachers notice if students have trouble learning something, the respondents who are the students agreed that their teachers notice when students are having trouble in learning with a mean score of 3.07. These findings suggest that the teachers are close to their students and there is communication between the teachers and their students in such a way that the students can express their challenges and difficulties to their teachers.

On the other hand, Table 3 below presents the findings on the opinions of the respondents on the Facilitator teaching styles among the Secondary schools of Arumeru District.

Table 3: Descriptive statistics on Facilitator Teaching Style

Questionnaire Statement	Mean	Interpretation
Teachers encourage student-self learning	3.24	Agree
Teachers encourage students to ask questions on complex issues they don't understand	3.34	Agree
Students are required to prepare and give an individual presentation to the class	3.25	Agree
Teachers ask students to explain their answers	3.38	Agree
The teachers expect students to work through challenging tasks without giving up	3.03	Agree
Teachers encourage students to work independently on textbook or worksheet questions	3.00	Agree

Source: Field Data (2021)

From the findings presented in Table 3, with a mean score of 3.24 the respondents agreed that their teachers encourage the students' self-learning. This implies that teachers insist the students to participate in learning through self-learning as one way of putting the students at the center of learning.

It can also be seen that with a mean score of 3.34 the respondents (students) of the questionnaire agreed that their teachers encourage students to ask questions on complex issues they don't understand. This suggests that students are encouraged to present their academic difficulties to their teachers. This implies that the teachers insist the learners communicate what they don't understand so that they can obtain the answers on such matters from their teachers.

Regarding how the learners are involved in presenting the subject content, they have read, the findings show that with a mean score of 3.25 the respondents agreed that the students are required to prepare and give an individual presentation to the class. Through preparing and presenting individual presentations to the class, the students are equipped with the ability of in-depth searching and scrutinizing the subject matters to present what they have discovered to their fellow students and hence students' self-confidence is built among the students as argued by Brown, et al., (2019).

It was also observed that with a mean score of 3.38 the respondents agreed that their teachers ask the students to explain their answers on different subjects. With such agreement, the findings suggest that the students are given room to generate their answers to some questions and are required to explain their answers. This implies that the teachers apply a facilitator teaching style by allowing the students to generate their answers and explain them to others.

From Table 3, it can also be seen that with a mean score of 3.03 the respondents agreed that teachers expect students to work through challenging tasks without giving up. This implies that teachers have confidence in their students and the teachers encourage the students to struggle in finding the

solution to every academic challenge they face without giving up. When the teachers believe in their students, the students gain self-confidence, as well as self-actualization and hence the goals of academic achievement of the students, are met (Gulobia, Wokadala, & Bategeka, 2013).

Also, with a mean score of 3.00, the respondents agreed that their teachers encourage students to work independently on textbook or worksheet questions. This implies that, the students are required to study the subject matters from their textbooks and then required to independently work on the questions that are presented regarding the subject matter and thereafter, the student's understanding is assessed by the teacher through observing how the students managed to handle the questions given in their textbooks or worksheet. This implies that the teachers apply a facilitator teaching style during the teaching process.

From the presented findings in both Table 2 and Table 3, about the first research question, it can be seen that the secondary y school teachers of Arumeru district apply both investigated learner-centered teaching styles (delegator and facilitator teaching styles). This argument is supported by the responses of the students as presented in Table 2 and Table 3 above.

The findings of this study correspond with those of Pooja, (2017) who also found that teachers applied learner-centered teaching approaches like group discussion, seminars as well as question and answers methods of teaching during the teaching process. The findings of this study also agree with those of Kitti(2014) and Ahia, (2018) who investigated the teaching methods applied by the teachers in Nyamagana District and Korogwe District respectively, in both of their findings, learnercentered teaching methods were reported to be the dominant teaching methods mostly applied, involving the use of group discussion, questions and answers as well as brainstorming methods of teaching. The learner-centered teaching styles allow the students to actively participate in the process of teaching and learning and therefore the learnercentered

The learner-centered teaching styles allow the students to actively participate in the process of teaching and learning and therefore the learner-centered teaching styles enhance learners' self-confidence and self-actualization in their learning process. So it is important that teachers in secondary schools continue applying these learner-centered teaching styles in their teaching sessions.

Descriptive analysis of the Students' Academic Achievement

Students' academic achievement was the dependent variable for this study. Being defined by Collin (2007) as cited in Ngussa and Gundula, (2019) academic achievement is the extent to which students attain their short or long-term educational goals commonly measured through examinations or continuous assessments. Performance in annual examinations, quizzes, tests, and assignments, as well as obtaining the school set average marks by a student have been mentioned as some parameters that can be used to determine the student's academic achievement. Descriptive analysis of the Students' Academic Achievement

The second research question sought to establish the academic achievement of secondary students of Arumeru district. The questionnaire statements for this research question sought to investigate the perceptions of the students regarding their academic achievements. The findings obtained are as presented in Table 4.

Table 4: Descriptive statistics on Students' Academic Achievement

Questionnaire Statement	Mean	Interpretation
I achieve well in my annual examinations	3.25	Agree
I achieve well in my quizzes, tests and assignments	3.25	Agree
I meet the school set average marks annually	3.18	Agree
My academic achievement keeps increasing from day to day	3.29	Agree
My academic achievement is better than that of students at the same level from other schools	2.95	Agree
My teachers and parents are satisfied with my academic achievement	3.15	Agree

Source: Field Data(2021)

From Table 4, it can be observed that with the mean scores of 3.25 the respondents agreed that they are achieving well in their annual examinations. It was also found that with a mean score of 3.25 the respondents also agreed to achieve well in their quizzes, tests, and assignments. These findings suggest that the student's academic achievement in terms of annual examinations, quizzes, tests, and assignments are well. Based on the argument by Ngussa and Gundula, (2019), academic achievement is the extent to which students attain their short or long-term educational goals commonly measured through examinations or continuous assessments. It was also found that with a mean score of 3.18 the respondents agreed that they meet the school set average marks annually. Since many of the school measure, the academic achievement of their students through setting specific average marks that every student have to meet to continue with the next level of their studies, the responses of the respondents in this study suggests that the students are meeting the requirements of proceeding with their next level of the studies because they are meeting the school set average marks annually. This implies that the students are academically achieving well.

Regarding the academic achievement of the students, respondents agreed that the student's academic achievement keeps increasing. This was evidenced by the mean score of 3.29 suggesting that the respondents agreed that their academic achievement is improving. Thus, this implies that the academic achievement of the students is well. Regarding how the respondents perceive their academic achievement as compared to other students, the respondents agreed with a mean score of 2.95 that their academic achievement is better than that of students in the same level from other schools. This implies that the students have confidence in their academic achievement and also they in one way or the other assess their academic achievement by comparing their achievement to those of other students of the same level from other schools. Lastly, respondents agreed with a means score of 3.15 that their teachers and parents are satisfied with the students' academic achievement. The satisfaction of teachers and parent imply that the students in secondary schools of Arumeru district are achieving well academically. The findings above imply that the students of secondary schools of Arumeru district are achieving well in their academic activities. The findings above somehow agree with those of Ahia (2018), Ngussa and Gundula (2019), and Senguo (2020) who conducted different studies in different regions of Tanzania, investigated the academic achievements of the students and reported satisfactory academic achievements of the students.

The findings of the current study regarding academic achievement suggest that teachers are doing their teaching very well and suggest a possibility that the teaching styles that are used by the teachers during the teaching process play an important role towards the peak of academic achievement as argued by Awla (2014) that when teachers apply the proper teaching styles which match the students' needs, the students will find the subject interesting and their academic achievement will be enhanced.

Hypothesis Testing

This section tested the hypothesis to determine the interrelationship between learner-centered teaching styles applied and the students' academic achievement. The section was guided by the third research question which sought to examine the relationship between the learner-centered teaching styles applied by the teachers and students' academic achievement in secondary schools of Arumeru district. The data for this research question was analyzed by inferential statistics namely Pearson product Moment Correlation Coefficient. The nature of the existing correlation was either positive or negative and was interpreted under the following criteria: $\geq .70$ = strong relationship, $\geq .50$ = moderate relationship, and $\leq .50$ = weak relationship. The findings for the third research question are as presented in Table 5.

Table 5: Correlation between Learner-centered Teaching Style and Students' Academic Achievement.

		Delegator Teaching Style	Facilitator Teaching Style	Academic Achievement
Delegator Teaching Style	Pearson Correlation	1	.164**	.183**
	Sig. (2-tailed)		.004	.001
	N	316	308	313
Facilitator Teaching Style	Pearson Correlation	.164**	1	.212**
	Sig. (2-tailed)	.004		.000
	N	308	312	310
Academic Achievement	Pearson Correlation	.183**	.212**	1
	Sig. (2-tailed)	.001	.000	
	N	313	310	318

** Correlation is significant at the 0.01 level (2-tailed).

As it can be seen in Table 5 above, the correlation between delegator teaching style and students' academic achievement intercepts at point ($r = .183, p=.001$ two-tailed), which implies there is a positive and yet weak relationship between delegator teaching style and students' academic achievement. Also, the findings the correlation between delegator teaching style and students' academic achievement intercepts at point ($r = .212, p=.000$, two-tailed) which implies there is a weak positive relationship between facilitator teaching style and students' academic achievement (as referred to the scale; $r \geq .70$ = strong relationship, $r \geq .50$ = moderate relationship and $r \leq .50$ = weak relationship). With these findings, the null hypothesis of this study which assumed no significant relationship between the variable is rejected since the findings have shown, a direct relationship between the learner-centered teaching styles and students' academic achievement. These findings are in harmony with those of Khalid, Akhter, and Hashmi, (2017) from Pakistan who also reported facilitator and delegator teaching styles have a positive relationship with students' achievements. The established relationship between learnercentered teaching styles and students' academic achievement suggests that the learner-centered teaching styles have a slight influence on students' academic achievement.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The study came up with the following conclusion regarding learner-centered teaching styles applied by the teachers, level of students' academic achievement, and the relationship between learnercentered teaching styles and students' academic achievement.

Firstly, the study established that teachers of the secondary schools of Arumeru apply delegator teaching styles through assigning students with the task to be done in groups, the teachers act as observers as the students perform the lessons; teachers allow students to ask questions during class sessions and the teacher gives students the help they need when they are stuck

Also, teachers work hard to make sure that all students are learning and teachers notice if students have trouble learning something. It was also found that the facilitator teaching style is applied by teachers through encouraging student-self learning, encouraging students to ask questions on complex issues they don't understand, students are required to prepare and give an individual presentation to the class and that, teachers of the secondary school of Arumeru district expect students to work through challenging tasks without giving up, as well as encouraging students to work independently on textbook or worksheet questions.

Secondly, it was established that the students in the secondary schools of Arumeru district are achieving well in their academic activities. This means, the students are achieving well in their annual examinations, they achieve well in their quizzes, tests, and assignments, they meet the school set average marks annually, their academic achievement keeps increasing from day to day, and teachers and parents are satisfied with students' academic achievement.

Thirdly, the study established a weak positive correlation between learner-centered teaching styles applied by the teachers and students' academic achievement. This implies that learner-centered teaching styles applied by the teachers have little influence on students' academic achievement in secondary schools of Arumeru district.

Recommendations

Based on the above conclusion, the researchers came up with the following recommendations about learner-centered teaching styles and students' academic performance. Firstly, there is a need to encourage the teachers in all the secondary schools to adopt and continue practicing learner-centered teaching styles through placing much emphasis on students' participation during the teaching process. The researchers also sees there is a need for learner-centered teaching styles to be practiced from the primary level of education to create a student's positive attitude towards independent learning. Also, students should be encouraged and motivated to participate during class sessions and to keep studying hard so as to continue with their academic achievement and performance in their exams, class assignments, tests, and quizzes. When students are encouraged to participate in class sessions and to learn, their academic achievement will be enhanced.

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