

The influence of teaching styles on students' academic performance in secondary schools: A case of Uganda

Lilian Ruteraho^{1*}, Enock Barigye¹

¹Bishop Stuart University

Corresponding Author

*Lilian Ruteraho

lilianruteraho@gmail.com

Abstract

This study examined the influence of teaching styles on the academic performance of students in secondary schools in Mbarara Municipality. The study adopted a cross sectional survey design which incorporated qualitative and quantitative approaches. The study used a sample of 216 respondents where 70 teachers, 138 students, 3 inspectors and 5 head teachers. Questionnaire survey method was used to gather data from both teachers and students whereas head teachers and inspectors of schools were subjected to in-depth interviews. Quantitative data was analyzed with help of descriptive statistics using SPSS while thematic analysis was used to analyze qualitative data. From the study findings, it was found out that learner centered and teacher centred teaching styles were commonly used in secondary schools of Mbarara Municipality but most importantly learner centred teaching styles were predominantly used. The study found out teaching styles influences the level of mastery of concepts and skills in aspects like communication, research, reporting and self-expression among others. The study recommends that teachers should employ a variety of teaching styles but most preferably learner centred styles need to be emphasized in order to promote student learning. Also, refresher courses among secondary school teachers to equip them with the most current effective teaching styles under tooling and re-tooling programmes. Teachers ought to be mindful when selecting the teaching styles and instructional materials that motivate learners in the teaching learning process.

Background

In Ugandan secondary schools, the academic performance of students largely depends on the styles of teaching used by teachers during the teaching learning processes. There are various teaching styles employed by teachers in schools which include teacher centred teaching styles that involve lecture method, presentation and seminars. The other category is learner centred methods which involve question and answers, group discussion, brainstorming, demonstration. In many schools in Uganda, all these are applied depending on different subjects taught. However, the available evidence shows that there is a wide divide among schools of different economic background thereby creating the first world schools, second world and third world schools in the same society. The performance of students in the schools where this study was based is on downward trend. This creates a mystery on whether the teaching styles have a hand in causing these trends in academic performance or the other factors leading to this.

Mbarara Municipality is one of the urban areas in Uganda with the majority of the schools performing poorly in the national examinations with exception of fewer first world schools which are known of their excellent students' academic performance. One wonders whether, the application of teaching styles has anything to do with the downward trend or there are other factors at play. The Table below shows the trends in performance of different schools in Mbarara Municipality.

Table 1.1: Performance of selected schools by percentage in Mbarara Municipality in UACE from 2009-2016

School	Year and percentage pass in UACE							
	2009	2010	2011	2012	2013	2014	2015	2016
A	39.9	38.7	38.6	36.6	38.1	33.3	32.8	31.9
B	41.7	37.6	39.2	36.7	38.5	27.9	31.1	29.2
C	44.4	41.7	43.3	40.8	39.9	38.3	37.9	35.5
D	29.3	28.7	30.2	29.9	27.4	26.6	26.3	25.8
E	39.1	39.6	38.8	39.3	33.6	31.1	29.4	27.7

Source: Uganda National Examinations Board UACE Results

The above performance extract of UACE results between 2009 and 2016 of selected secondary schools points out clearly that there is a declining trend in the performance of both public and private secondary schools in Mbarara Municipality. Several studies have been conducted relating teacher motivation, welfare, management practices, students' discipline and academic performance with exception of teaching styles as one of the variables that would determine the overall academic performance of secondary school students in Mbarara Municipality. It is however, a fact that teachers in these schools use different styles of teaching styles and even some of them part-time in the best performing schools. What remains unclear is which exactly between the two teaching styles (learner-centred and teacher-centred) contribute to failure or

success of secondary school students' performance especially in developing countries Uganda in particular where the causes of poor performance in secondary schools is not well understood.

According to Alton-Lee (2004), the teachers should align their professional experiences with their teaching practices and pedagogies in order to benefit their students. Deppeler (2000), suggests that the teachers would be able to change their teaching practices when they would reflect upon them and engage themselves in examining their own theories of teaching practices. Great emphasis has been laid on the teachers to use effective teaching strategies and method for improved learning by many researchers and educationists. However, a lot of concern from the majority of the stakeholders has been put on students' failure and low progression in secondary schools. The concern points at persistent failure rate in UACE level results in Mbarara Municipality for example in 2009 more than 12.3% failed and did not get a certificate as compared to 36% who had two principal passes and one subsidiary. In 2010 10.8% failed and didn't get certificate, 2011 13.8% failed, 2012 11.6% failed, 2013 14.2% failed, 2014 13.5% failed, 2015 11.9% and 2016 14.1% (Mbarara District Statistical Abstract 2017). These statistics illustrate an upward trend in terms of poor academic performance among secondary school students in Mbarara Municipality with little scientific evidence on what exactly is behind poor academic performance. If this problem remain unsorted, there a high possibility, the country will experience a deficit of human capital as most students will have learnt and failed to attain the qualifications that would enable them to transit to university or tertiary institutions to advance their career. This, therefore, creates a knowledge gap that prompted the researcher to design a study on how teaching styles influence students' academic performance.

Purpose of the study

The purpose of the study was to examine the influence of teaching styles on secondary school students' academic performance in Mbarara Municipality.

Justification

Quite remarkably, regular poor academic performance by the majority students is fundamentally linked to application of ineffective teaching styles by teachers to impact knowledge to learners (Adunola, 2011). Substantial research on the effectiveness of teaching methods indicates that the quality of teaching is often reflected by the achievements of learners. According to Ayeni (2011), teaching is a process that involves bringing about desirable changes in learners so as to achieve specific outcomes. In order for the style used for teaching to be effective, Adunola (2011) maintains that teachers need to be conversant with numerous teaching strategies that take recognition of the magnitude of complexity of the concepts to be covered. This study based on this notion to examine the influence of teaching styles on students' academic performance with special focus on Mbarara Municipality of Southwestern Uganda.

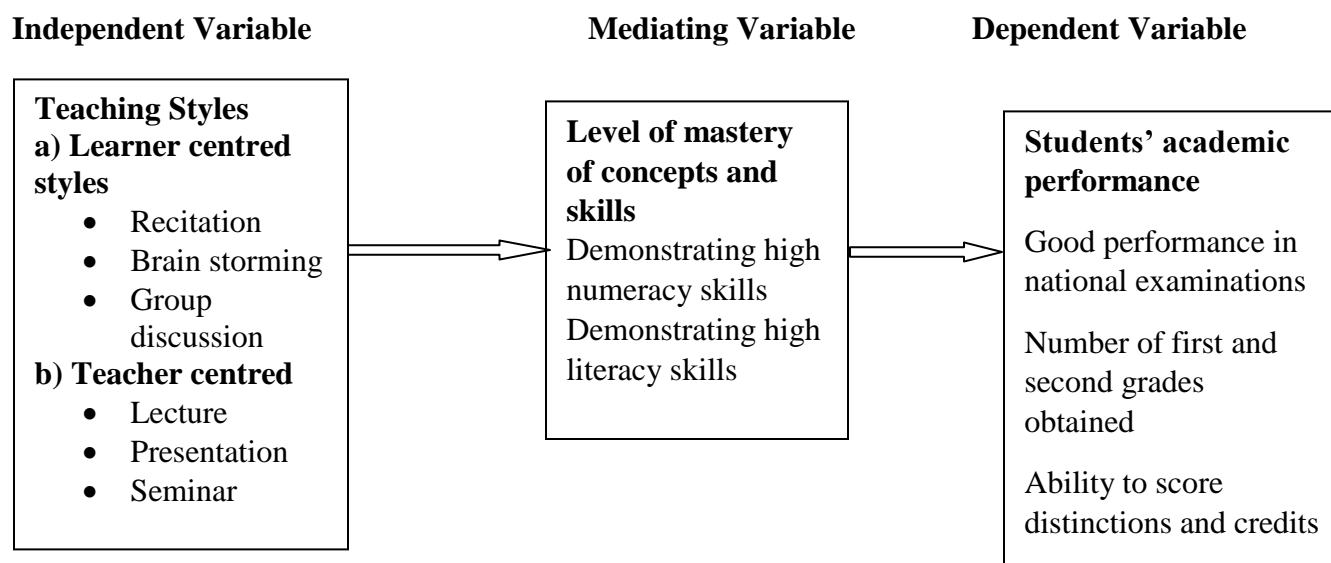


Figure 1: Conceptual Framework

Literature Review

As MacBeath (1999) points out, teachers and students do not exist in a vacuum but are influenced by one another's expectations and behaviours. Mutual discussion about expectations and behaviours can lead to increased understanding about teacher-learner relationships that promote learning. Explicitness about what is valued in teachers and students encourages a learning community. A process that invites dialogue about what it means to be members of the community, to be learner, a teacher, what are good lessons, for example, can promote self-review at an individual and organizational level. The good teacher, described above, has relationships with students that are based on trust, openness and they therefore allow this kind of self-review process to take place. Weinstein (1983) describes how students perceive the teachers relationship to high- and low-achieving students. Students described as low achievers received more negative feedback and teacher direction, and more work and rule orientation than high achievers. High achievers were perceived as receiving higher expectations, more opportunity and choice than low achievers. Studies have shown that what teachers expect from students can be a realizable prediction. Students expected to work well by teachers have more tendency for development than those who are not expected to do well.

The relationship between teacher and students can be extended along a continuum from formal to informal and cold to warm. Findings indicate that warm and supportive environment is critical for teacher to be effective and also for encouraging student to participate in courses. Teachers who are sympathetic, supportive and intimate and lead without strictness cause an increase in cognitional and emotional success among students. Teachers who are unreliable, dissatisfied and advisor lead to less cognitional and emotional success Wubless, Brekelmans & Hooymayers (1991), Marcel (1954) and Burton (1952) reported that students have more progress in individual and social learning in permissive environments. So that they have defended democratic organization of class rather than authoritarian organization regarding the nature of desired tasks

or the relationship between teacher and students. When teachers have positive relationships with their students, it affects the student's behaviour in relation to school. Students who perceive their teachers as highly supportive have better attendance and avoid problem behaviour (Rosenfeld, Richman, & Bowen, 2000). Sawatzki (1993) noted that not only teachers are responsible for mental and cognitional progress but also they must be careful about their moral, social and emotional progress and pay attention to the emotional efficiency of education.

Studies have shown that there is a relationship between teaching styles and students' academic performance, for example, it has been found that teachers who used a specific style of evidence-based teaching and operate within a developmental learning paradigm had an increased effect on student learning outcome (Griffin, 2007) thus teaching styles play an important role in producing good students' performance. In this regard, evidenced based teaching motivates learners to be more creative and innovative in making their own self research. This improves their learning abilities and sense of independence in the learning making it easy to performance excellently academically in the examinations.

Furthermore, several studies conducted on teaching styles in many parts of the world have demonstrated that teaching styles impact students' performance. For example, in USA (Haas, 2002), Nigeria (Asikia, 2010; Bategeka, 2012), and (Luntungan, 2012). These studies clearly indicate that teaching styles used by the teacher have an impact on students' performance and medium of instruction also impacts on students' performance (Senkoro, 2004; Canton, 2007).

Several studies have been conducted on the influence of teaching styles on students' academic performance. Next is a discussion of some of the relevant studies done in different countries? The study conducted in USA by Haas, (2002) about Teaching Styles on Students Achievement. This study looked on teaching styles used in all subjects. The present study found out that teaching styles influence student learning and consequently their leaning out comes in terms of test scores.

Another study on teaching styles was carried by Gulobia, Wokadala and Bategeka (2010) in Kampla City council primary schools. This study analyzed the link between educational inputs; teaching styles and pupils' performance in primary schools while this study examined the teaching styles used in secondary schools at O-level.

Sajjad, (2011) conducted a study in Karachi Pakistan on effective teaching styles at higher education level. The study determined the effectiveness of the various teaching styles used for teaching student at graduate level from the faculty of arts the findings revealed that learner centred teaching styles yielded eminent positive results in terms of classes of degree obtained by students engaged.

However, in a study conducted by OECD (2011) in African Universities it was found out that lecture method was the best teaching method followed by group discussion, other teaching methods rated are individual presentation, seminars, workshops, conferences, brain storming and

case study. Students' perception and ratings about the interesting and effective teaching styles is a way to suggest improvement on teaching or learning process.

Researchers like Bush (2006) and Kumar (2006) note that constructivist-based instruction connects students' world with learning pursuits in the classroom. Sunderman (2006) recommended that teachers should use constructivist instruction model to motivate student learning. Brad (2000) in his research found that when constructivist approaches are employed to learning, students post an improvement in their academic performance. Learner-centered pedagogy raises student achievement, promotes democratic classrooms, complex thinking and meets student's communication goals (Cummins, 2007). Doherty and Hilberg (2007) pointed out that learner-centered pedagogy promoted student achievement. Zekia (2009) found that gesture as a non-verbal teaching technique was an important source of motivation and concentration for students' learning as well as a tool for maintaining attention.

In Kenya, the issue of poor teaching strategies according to Njeri (2010) was raised by Ominde report of 1964. In this report, the Kenya Education Commission blamed the drill method of teaching for neglecting activity and pupil participation resulting in low achievement in education. The report encouraged teachers to adjust their teaching strategies to suit the needs of particular learners and to use activity methods so as to make education a child centered approach. It is highly important to note that these recommendations from different educators and teachers have not yet changed even after undergoing the relevant training (Njeri, 2010).

The above mentioned researchers give a general picture of the relationship between teaching styles and academic performance of students from various parts of the world. However, what prompted this was the fact that there was no scientific evidence or document literature linking poor academic performance of secondary students in Mbarara Municipality to the teaching styles used. The presented has specifically affirmed that teaching styles used by secondary school teachers in Mbarara Municipality have an influence on students' academic performance.

Methodology

The study adopted a descriptive research design with both quantitative and qualitative approaches of data collection and analysis. A sample size of 241 respondents were selected using both probability and non-probability sampling techniques. These included Inspectors of Schools, Head teachers, Teachers and Students. Respondents were subjected to both interview and questionnaire survey methods of data collection. Quantitative data collected was analysed with the help of SPSS version 20 and presented using descriptive statistics on frequency distribution tables. Qualitative data was analysed using thematic content analysis and narrative reasoning.

Analysis and Results

Teaching Styles Used in Secondary Schools

Respondents were asked to rate the teaching style using the 5 Likert scale and respondent to methods in each style. Table 1 shows the teachers responses on which teaching Styles Used in teaching.

Table 1: Teaching styles used in secondary (n=70)

Teaching Styles	Strongly	Agree	Neutral	Disagree	Strongly
	Agreed				
Learner Centred styles	56 (77.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Question and Answer	31(44.3%)	26 (37.1%)	8(11.4%)	2(2.9%)	3(4.3%)
Brainstorming	36 (51.4%)	14 (20.0%)	10(14.3%)	8(11.4%)	2(2.9%)
Group discussion	37 (52.9%)	18 (25.7%)	11(15.7%)	3(4.3%)	1(1.4%)
Demonstration	16 (22.9%)	25 (35.7%)	11(15.7%)	6(8.6%)	12(17.1%)
Teacher Centred	(5.7%)	2 (2.94 %)	5 (5.1%)	0 (0.0%)	3 (4.3%)
Lecture	11(15.7%)	16(22.9%)	15(21.4%)	16(22.9%)	12(17.1%)
Seminar	9 (12.9%)	20 (28.6%)	16(22.6%)	16(22.6%)	9(12.9%)
Presentation	29 (41.4%)	25 (35.7%)	11(15.7%)	3(4.3%)	2(2.9%)

As indicated in Table 1, question and answers method which belongs to the learner centered styles was identified by teachers as the most used method in teaching secondary schools by (81.4%) followed by group discussion (78.6%), presentation (77.1%), brainstorming (71.1%), demonstration (58.6%), seminar (41.5%) and the least being lecture method (38.5%). The data suggests that teachers use learner centered teaching style.

In an interview with one of the Head teachers on which style of teaching that is commonly used, the head teacher school D said;

“I have found that students understand and grasp better when they get opportunity to ask for clarification as opposed to dormant styles such as seminars and lecture therefore, our teachers are encouraged to use learner centred style. This style employs a variety of methods which help students to grasp concepts and use more than one of their senses”.
(HT. School D, 14th May 2018)

In another interview, one of the participants (head teacher) who had this to say;

“Some skills in understanding concepts cannot be attained easily by students unless ‘ teaching styles that involve different activities during learning process are used’’. Remember teaching and learning are the two sides of the coin, effective teaching is facilitated by an effective teaching style which results into effective learning. Remember the choice of which teaching style to be used, depends on factors like, availability of

teaching/ learning materials, appropriate number of students, nature of the subject and flexibility of the teacher” (HT SCH E, 16th May 2018).

In view of the most effective teaching styles, one of the inspectors noted that:

In my view all styles yield similar results but I may say that it depends of the ability of the teacher. ahhhh, sometimes our teachers do not know how to handle the class because I don’t think that there is a size that fits all. Therefore, depending on the nature of the class and the ability of the teacher each style has a purpose if well exploited that style that people see as less productive may end being the most fruitful style in increasing student learning outcomes as evidenced in their scores in end of term examinations or in summative evaluation which comes at the end of the cycle (INSP 3 18th May, 2018)

Most Effective Teaching Styles used by teachers in secondary schools

Table 2: Most Effective Teaching Styles (138)

Teaching Styles	Strongly Agreed	Agree	Neutral	Disagree	Strongly Disagree
Question and Answers	78(56.5%)	49(35.5%)	7(5.1%)	4(2.9%)	0(0.0%)
Brainstorming	25(18.1%)	68(49.3%)	32(23.2%)	6(4.3%)	7(5.1%)
Group Discussion	82(59.4%)	37(26.8%)	18(13%)	0(0.0%)	1(0.7%)
Presentation	36(23.4%)	51(35.5%)	32(23.2%)	17(12.3%)	2(1.4%)
Lecture	29(21%)	28(20.3%)	41(29.7%)	22(15.9%)	18(13%)
Seminar	13(9.4%)	36(26.1%)	22(15.9%)	28(20.3%)	39(28.3%)
Demonstration	79(57.2%)	41(29.7%)	9(6.5%)	6(4.3%)	3(2.2%)

As shown in Table 1 question and answer, demonstration and group discussion method under learner centred teaching style was selected by most students in a way that they help them understand the subjects easily. Other methods are brainstorming, presentation, seminar and lecture which are under teacher centred. This is attributed to the fact that learner centred style motivates students intrinsically and give them a chance to guide the teaching learning process. In the end they become creative and innovative which influences their academic performance.

In general, students’ perception of the appropriateness of teaching styles used in teaching is that teachers should use styles that involve students’ participation. This was obtained from an interview with one of the inspectors of schools in Mbarara Municipality. in this interview he had this to say:

“.....as time goes by things tend to change.....during our days things were days, teaching was all about teacher centred. Apparently, if you apply it on students, there is a likelihood that they will perform worse than expected. Learner centred have been proved to be the best approach in teaching learning process all the way from primary to secondary schools. It is the best approach in that it helps students to be creative both

during the lesson and after the lesson in their personal readings. In otherwards it encourages students' personal research beyond classroom arrangement....” (Inspector of schools, Mbarara Municipality 20th May 2018).

Ways in which teaching styles influence students' academic Performance in Secondary Schools

Table 3: Ways in which teaching styles influence students' academic Performance in Secondary Schools (n=70)

Teaching Styles	Strongly Agreed	Agree	Neutral	Disagree	Strongly Disagree
Learner Centred					
Question and Answers	41(58.6%)	20(28.6%)	6(8.6%)	2(2.9%)	1(1.4%)
Brainstorming	35(50.0%)	24(34.3%)	7(10.0%)	0	4(5.7%)
Group Discussion	28(40.0%)	34(48.6%)	4(5.7%)	1(1.4%)	3(4.3%)
Presentation	16(22.9%)	26(37.1%)	13(18.6%)	6(8.6%)	9(12.9%)
Teacher Centred					
Lecture	28(40.0%)	22(31.4%)	14(20.0%)	2(2.9%)	4(5.7%)
Seminar	17(24.3%)	16(22.9%)	14(20.0%)	8(11.4%)	15(21.4%)
Demonstration	31(44.3%)	25(35.7%)	8(11.4%)	4(5.7%)	2(2.9%)
Combination of strategies	43(61.4%)	19(27.1%)	6(8.6%)	0	2(2.9%)

As shown in Table 3, group discussion 62(88.6%) and combination of strategies 62(88.6%) are selected by students as the best styles that help and prepare them for assessments (exercises, tests and examinations). Other styles followed are question and answers (87.1%), brainstorming 59(84.3%), demonstration 56(80.0%) lecture 50(71.4%) presentation 42(60.0%) and the use of seminars 33(47.1%) being the least.

From interviews with inspectors, one of the inspectors had this to say,

Firstly teaching styles are categorized into participatory (question and answers, brainstorming, group discussion and demonstration) and non-participatory styles (lecture, seminar and presentation) influence performance of students Participatory (learner - centered) styles are important in teaching as they help student to perform different activities in the class during teaching/ learning process and make students to have long memory such as self-expression, presentation, fluency, reporting among others. Some skills cannot be obtained easily by students unless demonstrated by the teacher and lecturing is done they also need full participation of students because involve much calculations and diagrams which need to be demonstrated, discussed in groups and brainstorming questions should follow so as to enable teachers know to what extent the students have understood what they have taught. They also commented that learner centered styles enables students to share their views and what they know about the

subject matter and contribute to the topic as they are motivated and need to know more about the topic taught/ discussed (INSP 2 19th May 2018).

On the other hand one of the Head teachers in an interview noted that,

Teacher centered method are used in teaching because the students are being introduce new concept and if used properly they can improve academic performance of students. Teacher centered styles are helpful in coverage of syllabus, they are used for the purpose of clarifying information to a large group in a short period of time, useful in situations where the aim is to provide frame work of idea and theories, these include lecture and seminars. Importantly, teacher and learner centered teaching styles which included demonstration, brainstorming, group discussion, field trip, lecture, presentation question and answers extra, the choice of which method to use depend on the knowledge of the students, classroom environment, teaching and learning materials, experience of the teacher and flexibility and nature of the topic or subject matter to be taught. Every educator that should note that teaching styles are very important and can influence performance of the student thus the proper choice and use of these styles can lead to better performance of students (HT Sch A, 19th May 2018)

Discussion and Conclusion

From the study findings, it was revealed that group discussion and a combination of other teaching strategies under learner centred are more effective in instruction. This implies that for better performance to occur a teacher needs to employ a number of teaching strategies under learner centered methods. The above findings are in conformity with Kimweri (2004) who argued that discussion method entails teaching and learning strategy through sharing and exchange of ideas, experience and opinion accompanied by active learning with all students of the group participating in it. The findings are also supported by Ndirangu (2007) who argued that discussion was an important component of any teaching or learning situation. This is because it allows students to share their ideas.

Findings further reveal that the styles used out rightly affect the learning which in turn affects the students learning outcome. This agrees with Mosset (2010) who asserts the learning out is as a result of what happened in the classroom. In his view, he believes what the classroom business is always related what students put on paper and how they actually behave later in life. The implication of this is that the nature of teaching greatly affects what students know and are able to do during their school time and later in life even after school.

These results clearly demonstrate that group discussion, question and answers or combination of strategies are superior teaching styles not only in introducing new concepts but also in revising the taught subject matter. These results agree with previous studies by J-Ping and Collis (1995) in (Faraday, Overton & Cooper, 2011) who showed that at least two teaching styles ought to be used to make teaching effective.

In summary, the teaching styles used in teaching in public secondary schools in Mbarara Municipality have high impact on students' performance as shown by students that group discussion, combination of strategies, question and answers and brainstorming have high percentages to show effectiveness. At least more than one method should be used to make teaching effective. These results agree with previous studies by J-Ping and Collis (1995) in (Faraday, Overton and Cooper, 2011).

Conclusions

Conclusions were based on the study findings in accordance with the study objectives as presented below:

The present study on teaching styles used in secondary schools concluded that learner centered teaching styles was the commonly used style in secondary schools of Mbarara Municipality. This was attributed to the fact that it makes the teaching-learning process easy and enjoyable on both the side of the learners and teachers which predicts students' academic performance in national examinations particularly at UCE.

The study also, concluded that group discussions and demonstration methods which fall under learner centred teaching style were the most effective teaching methods in secondary schools which influence students' performance. These styles were found out to promote students ability to research, present and report their findings not forgetting communication.

It was further concluded that the level of students' performance largely depended on the teaching style employed by the teachers during the teaching learning process. It was confirmed that learners' level of academic performance depends on the teaching styles employed by teachers during the teaching learning process.

The present concludes that teaching styles influences students' academic performance in secondary schools in Mbarara Municipality. The study confirmed that teaching styles positively influences the level of mastery of concepts and skills in aspects like communication, research, reporting and self-expression among others.

Recommendations

The results of this study revealed several areas of concern; the following are recommendations to address each of those concerns in line with objectives;

From the conclusion, the study concluded that learner centered teaching styles were commonly used in secondary schools of Mbarara Municipality. In this regard, the researcher recommends that teachers should employ a variety of teaching methods teaching methods that fall under learner centered teaching style in order to cater for individual differences among the learners since most of the learners have different levels of comprehending the subject matter.

It was reported that group discussions and demonstration methods under learner centred teaching were found out to be the most effective teaching methods in secondary schools which influence students' performance. This calls for refresher courses among secondary school teachers to equip them with the most current effective teaching styles under tooling and re-tooling programmes.

The study found out that the level of students' performance greatly depended on the teaching style employed by the teacher. The researcher therefore recommends that the teachers ought to be mindful selecting the teaching style and instructional materials to supplement the teaching. The researcher also recommends that the government should provide the schools with necessary infrastructure, equipment and materials to handle the big classes as a result of USE.

The study confirmed that teaching styles influence the level of mastery of concepts and skills in aspects like communication, research, reporting and self-expression among others. The researcher recommends that the teachers should be critical in teaching style selection for development of skills within the students which influence performance.

References

- Adunola, O. (2011). "The Impact of Teachers' Teaching Methods on the Academic Performance of Primary School Pupils in Ijebu-Ode Local Area of Ogun State," Ego Booster Books, Ogun State, Nigeria.
- Asikhia O.A (2010). Student and Teacher Perception of the Causes of Poor Academic Performance, *Journal European Social Sciences vol.13*, Nigeria.
- Ayeni, A.J. (2011), "Teachers professional development and quality assurance in Nigerian Secondary Schools," *World Journal of Education*, 1(2):143-149.
- Faraday S, Overton C and Cooper S (2011). *Effective Teaching and Learning in Vocational Education*, LSN London, UK.
- Griffin, D. (2007). *The Competence and the Uncertainty of Assessment: studies in Educational Evaluation: Unpublished research*, University of Melbourne.
- Guloba, M. Wokodola J. and Bategeka (2010). *Does Teaching Styles and Availability of Resources Influence Pupils' Performance*, (Unpublished Research) in Uganda.
- Kimweri P. (2004). *Adult Teaching Learning*. The Open University of Tanzania, Dar es Salaam Tanzania.
- Ndirangu C (2007). *Teaching methodology*, African Virtual University 1 Published under Africana.
- Sajjad, S (2011). *Effective Teaching Styles at Higher Education Level*, Unpublished Research, Submitted to the University of Karach Pakistan
- Senkoro, F. E. M K. (2004). *Research and Approaches to medium of Instruction in Tanzania Perspective Directions and Challenges*. In Block –utne, Bigit. Cape Town Minds, South Africa.
- Senkoro, F. E. M K. (2004). *Research and Approaches to medium of Instruction in Tanzania Perspective Directions and Challenges*. In Block –utne, Bigit. Cape Town Minds, South Africa.
- Weinstein Claire E. & Mayer Richard E. (1983). *The Teaching of Learning Strategies*. *Innovation Abstracts*, v5 n32 Nov 4 1983.