

Relationship between Student's Perceptions towards Science Subjects and Performance in form two National Examinations in Moshi Municipality

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Abstract: The purpose of the study was to establish the relationship between students' perception and performance. The theories that guided the study were theory of leaning and Constructivism theory. In this study the design used was correlation survey design. The target population that involved in this study is 16 public schools in Moshi municipality. Samplings used in this study were stratified and simple randomly sampling. The instruments that used to obtain the data in this study were questionnaire for students and interview schedule for teachers. The main findings were Perceptions of students towards science subjects in Moshi municipality Relationship between student's perception and academic performance towards science subjects in Moshi municipality, Improvement perceptions of students towards science subjects and challenges facing students' performance on science subjects in Moshi municipality. The study concluded that there is strong relationship between students' perceptions and performance towards science subjects. The researcher made recommends that the ministry of education and vocational training must establish union among students who studying science subjects and prepare gifts and incentives for all students who performing better in science subjects, this situation will increase interest of students to study science.

Keywords: Perception towards science subjects, Performance, Teaching /learning methods and Instructional materials.

INTRODUCTION

Science is a body of empirical, theoretical and practical knowledge about the natural world. The word science is from Latin word scientia meaning knowledge. Science builds and organizes the knowledge in form of testable explanations and predictions about the universe. It is the way of knowing a method of learning about nature rooted in common sense. Science use formal systematic methods called scientific enquiring and in doing enquiring scientist use a variety of empirical approach. Methods of collecting data from nature, analyzing data and constructing the knowledge involve science. From 18th century through rate 20th century the history of science especially of the physical and biological science where often presented in progressive narrative in which the true theories replaced false beliefs, because science mostly based on experimentation and observations.

In sub-Saharan countries including Tanzania, there is poor perception towards science subjects. The Tanzanian government is trying to supply human and material resources to raise students' interest in studying science subjects. due to lack of interest, the rate of failure is rising every year, as in three subjects the performance in 2004, 2006 and 2008 were, mathematics

70%, 76% and 82%, physics 45%, 46% and 44% and chemistry 35%, 38% and 43% respectively [1]. In 2011, Mamlock-Naaman conducted a study to investigate why students are not interested in science and came with ways to arouse students interest in studying science. But there is high rate of teacher turnover and due to large number of enrolled students; teaching and learning materials are inadequate [2].

The issue has to be looked with future oriented eye and a critical mind. There is a need to find innovative and effective ways to combat teacher turnover and retain them [3], for better performance in science subjects and to rise students interest in studying them. New teachers are leaving the profession very early due to unsatisfactory working environments [3]. Regardless the government efforts, many students are not interested and have decided to drop physics and chemistry subjects. Chemistry, Physics, and Biology are science subjects and good academic performance on the science subjects is the key factor to show how well the school is and run it to accomplish its mission producing well prepared students.

Good performance and successful on science subjects will enable the country to be self-reliance on

different areas like pharmacists , doctor ,science teacher, biologist and other professionals that will be important in the country. In order to success on this students and teachers must understand their role and responsibilities in order to bring awareness. For students to know their role and responsibilities they will be serious and their performance will improved to that science subject's. On another hand teachers improve their teaching methodologies, use participation method rather than lecture methods, increase text books concerns with science. Chonjo and Wellford [4] attribute such students' failure in science subjects to pedagogical ways of teaching subjects. This covers ways in which science subjects are taught and learnt, the nature of syllabus, the quality and competence of subject teachers. It also covers the degree to which students are motivated to master the content, availability of teaching materials and their uses, and the nature of examination setting.

The study investigated the relationship of student perceptions on science subject and their performance on form two National examinations. The research will explain well the perception of students because if they belief that science subject are difficult, it became hard for them to pass to those science subjects. The problem of negative perception in studying of science subject in Tanzania is found to be huge problem in different regions within a country and if the problem will remain unsolved soon there will be serious lack of scientist expertise. The lack of scientist expertise will result to underdevelopment in different sectors. To explain this problem there is a need to understand perception of students toward science subjects, and it is negative why it is so? The study also will recognize the root cause of high rate of dropping of science subjects in different schools found in Tanzania. The study will be conducted in Moshi municipal to represent all schools in the country that encounter the same problem.

However science subjects are not difficult as students belief, this result seems on National examinations like form two and form four National examinations because other students do not study hard and other students do not put efforts on science subjects and when fail they say that science subject are hard . Also the study investigated the role of teachers to their students. And how they advise them about science subjects in order to create positive perception and improve student performance on those science subjects. The result that obtained enable to solve the problem experienced.

Statement of the Problem

The study is very important to the country since science is applied in many fields like agriculture medicine, pharmacy and nutrition. Through science people may specialize for their own benefit and society benefit. The researcher will investigate how students perceive science subjects and their

performance in form two national examinations since the study will understand the perception of the students if is negative or positive in order to resolve the situation .The relationship between perception and their performance may relate or not . The study conducted in Moshi municipal in Kilimanjaro in order to release the reality.

However some of the student perceives that science subjects are difficult and that is why they don't use their enough time for studying subject even in preparing their examination and if the situation will became difficult for country to achieve the educational goals. So students' musts study hard and the government must put the enough effort to support scientist. According to Tunner [5] decrease in number of students who perform better in science subject is due to shortage of science teacher in the community .Lack of quantitative teacher affect the performance of students in science subject.

An international assessment of education revealed that positive attitude toward science influence student academic performance. Further research examining psychological effect found that a student self-concept of his ability to perform in science positively correlated with. Oliver and Simpson [6] students anxiety towards the learning of science make them to lose interest on science subject occupies a central position as their core subject for medical science, textile technology, agriculture science, synthetic industry painting, technology, pharmacy and engineering. The researchers did not talk about the relationship between perception of students on science subjects and their academic performance. Therefore the study realized that there is relationship between students' perception and their performance towards science subjects on form two National examinations in Moshi municipality.

Research Questions

The study was guided by the following questions;

- What are the perceptions of students towards science subjects in Moshi municipality?
- What is the relationship between student's perception and academic performance towards science subjects in Moshi municipality?
- What are the challenges facing students' performance on science subjects in Moshi municipality?
- What should be done to improve perceptions of students towards science subjects?

Theoretical Framework

Classical conditioning of associative learning Theory by Ivan Pavlov (1929-1936) guided this study. Pavlov performed an experiment on dogs and discovered that dogs learnt to salivate in response to a

bell. Many trials had been given in each of which the bell was sounded and food was simultaneously. It is assumed that students in secondary school level classes would get good grades whenever the teachers encourage the students to study very hard, teacher taught and students were exposed to many rewards and reinforcement. According to Pavlov concept, it shows that conditioned Response (CR) was the response developed during training and Conditioned Stimulus (CS) was the stimulus, which included rewards and reinforcement intended to evoke the CR (i.e. good grades in the final examination). Unconditioned Response (UR) was the same or almost the same response as the CR but it existed prior to training, normally being given whenever a certain stimulus; the Unconditioned Stimulus (US) was presented.

According, to the above theory it show that most of students encouraged by the teachers for the better performance .The science teachers as an external stimulus promote the performance of the students through giving them rewards and reinforcement. The advantage of this theory in this study was that as the rewards and reinforcement (condition stimulus) from the teachers increase to the student achievement as a result of teaching and learning it would increase student academic performance (Conditioned Response). According to this theory Pavlov act as a teacher who treats children/student by applying rewards and reinforcement for the aim of stimulating children academic response. On another hand this theory has disadvantage whenever the teacher who is assumed as a Pavlov delay in providing rewards and reinforcement towards student academic achievement it would decrease student self-esteem and positive attitude towards academic matter. According to the Pavlov theory concept it shows that condition stimulus is not in continuous process so it provides negative change towards condition response

LITERATURE REVIEW

Perception of students towards science subject

The study of Ignacia, Nieto and Barona [7] about students perceptions towards science subject, on their study students perception lie on beliefs relating to the science subject. Concept to refer to personal beliefs refers to the word of science, what is to set ideas, judgments, and beliefs and attribution that the person has steadily built up during his or her process of learning in school environment. Also in this case the students in secondary school especially when they tend to reach form two that start believing that the science subjects are very taught they tend to perceive that the science subjects could be done by those who are genius students. The researchers explained will how the beliefs ideas and judgments affect student's performance on science subjects especially when they reach form two in difference schools. In other hand the researchers did not show the way that help the students to avoid the beliefs which show that science subjects are very difficult.

Norwich, B [8] on his research about perception he explained that most students dislike science subject because, they perceive that science subjects are difficult to learn. He said extrinsic-behavior reasons were higher in few students while intrinsic behavior were high in arts subjects than science subjects , however, this subjects difference for intrinsic reason was dependent on gender differences. Good example is through doing homework, where by interest and performance in case of extrinsic reasons was high in science subjects and arts for boys with no differences between subjects for girls. There was only a subject difference dependent on a gender differences, for boys intrinsic reason were higher for arts subjects than science subjects while for girls the intrinsic reasons were higher for science subjects than arts subjects.

Moscucci [9] Conducted the research about a Meta – belief system activity on the basis of learning experimentation which concern with perceptions of students, where the importance of making learners aware of their beliefs systems regarding science subjects became apparent .Many of teacher's beliefs and views seem to originate in and be shaped by experience. Moscucci asserts that whereas beliefs that are formed from experience appear to be more resistant , “learning and inquiries are dependent on prior beliefs” There is need for teachers to learn about their students from student themselves .The purpose this study was to provide insights into the perceptions with respect to their experiences inside and outside classrooms , with or without their teachers, .Implications of these perceptions may inform pedagogical consideration in improving the science achievement of students .The conceptions , attitudes, and expectations of the students regarding science subjects teaching have been considered to be very significance factors underlying their school experience. These conceptions determine the way students approach science subjects tasks, in many cases leading them into nonproductive paths .Students have been found to hold strong procedural and rule – oriented view of science and to assume that science subjects questions should be quickly solvable in just a few steps ,the goal just being to get “right answers “ for them.

Relationship between student's perceptions and performance

Mensah *et al.*, [10] conducted a study about student's attitudes towards science and mathematics performance, The study examined the relationship between teachers attitude and students' academic performance .Also looked at influence of teachers attitudes towards on student's attitudes. From the study it revealed that teachers who have the positive attitudes towards students they tend to create confidence and awareness to their students that make their students to have good performance on science and mathematics subjects and if the negative attitudes of the teacher towards the students leads students to have no

confidence and they tend to create worry about science and mathematics that make poor performance.

The study of Francis [11] observed that, there has been a hierarchical subject status with the sciences associated with high status and the arts associated with low status. Following this association, Francis demonstrates that the sciences have been seen as objective and rational while the arts seen as subjective and less rational. The sciences have been associated with high paying careers such as medicine and engineering. From these observations, one would expect more students to choose sciences because the positive perception towards science subjects leads good performance which resulted to have a lot number of doctors and engineers; however, the opposite is the case, they are also perceived by many students as difficult and therefore most students avoid them. Francis [11], subjects such as physics, mathematics and chemistry are perceived by students to be more difficult than other subjects such as English, civics and history. Students' choices of subjects and streams therefore involve a big dilemma between the high status subjects leading to high status careers and the question of ability and/or perceptions of abilities.

Mwakitalima [12], did a study about "influence of attitudes and norms on students' performance on science subjects which conducted in Mbeya region. It was a case which involved the two schools and 100 students. The study examined the relationship between student's attitudes normative and beliefs for science subjects in secondary schools in Mbeya region. The results revealed that attitudes influences science subjects and academic achievement. However the study was conducted in Mbeya region involve two schools which cannot be used to conclude for a whole region, also the information cannot be used to study the influence of the attitude of the other areas. Also as the case that the students attitudes on secondary schools in Tanzania are similar but the attitudes can be changed according to the environment as well as the behavior of a given society like Chagga and Pare which are the ethnic tribes found in Moshi they have different attitudes compared to the people in Mbeya.

Challenges facing student's performance towards science subjects

Yin [13] on his research about challenges facing students' performance toward science subjects, he discovered that one of the problems that makes student failing to achieve their studies especially in science subject is misconception. Misconceptions are those held by students that are at variance with scientific knowledge even after formal instructions. Therefore for providing meaningful learning researcher tried to identifies the misconception as the factor which lead to fail in achievement. In one hand the researcher explain well misconception as the obstacle for

achievements on science subjects. But in another hand the researcher fails to solve on how misconception can be eliminated to the students in order to improve their achievement on science subjects.

Otto [14], conducted a research in Australia using a wide range of schools and teacher to investigate what cause poor performance of students in chemistry and other science subjects in secondary schools. He came out with findings like workload, lack of recognition, resources, poor physical environment, and shortage of teaching and learning resources. His research was too general since it did not concentrate on one aspect after another like how workload or lack of recognition causes poor performance of the students in chemistry.

Mwangi [15] on her study on the factors related to poor performance in science subjects in secondary school in Temeke district analyzed the factors contribute to poor performance in mathematics. These include the lack of text books, and other teaching and learning resources, negative attitudes towards the subject, discipline problem especially on the side of the students lack of up to date information on methodology, lack of parental support, lack of motivational and others. However from this study there is no way of eliminating such problems, also there is no other causes such as the environmental factors, distance factors, cultural and social cultural factors that makes the learners to consider mathematics as the subject of the others by excluding themselves.

Improvement of student's perception towards science subjects

The study of John R. Staver [16] about improvement of student's perception towards science subjects, he suggested that to prepare student to live and work in tomorrow. World science should be taught and science teachers must make room for scientific inquiring by decreasing their emphasis on teaching science as sequence of lectures and reading assignments on the body of scientific knowledge in scientific inquiring as core part of science content and as a method instruction. He emphasizes the practical on science subject that would help the students to understand well what they learn on science subjects. On another hand the researcher did not show the teaching methodologies which are better for teaching science subjects.

According to Maltese & Tai [17], students' perceptions are influenced by students' motivation and interests in science and mathematics. At the same time, students' motivation and interest is affected by many factors ranging from internal classroom factors such as the teaching and learning environment, instructional methods and strategies and the nature of science curriculum to more external factors such as students' social-economic status, gender and ethnic groups. In

order to improve perception of students towards science subjects the above factors that affect students' motivation and interest must be improved.

James William [18] on this study on effectiveness of strategies used by science teachers to improve science subjects performance in secondary school which conducted Hai district, he analyzed different strategies used by science teachers to improve science subjects performance as well as students participation in learning. Those strategies include test, homework, group work, remedial classes and workshops. Also he discussed motivation as one of the strategy to improve student's performance in science subjects of which according to classical conditioning theory motivation was one of the factor which stimulate student's active learning

Demonstration of Knowledge Gap

From the reviewed study, much has been pointed out concerning with motivation, beliefs and ideas which affect performance on science subjects. However science curriculum should provide the students with key ideas that the reliable knowledge of natural world can deduced. The curriculum should make it possible for teachers not only to focus on students' ability to understand and interprets scientific information but also to translate student perception to be positive in science subjects in order to improve performance. Those above researcher do not explain about the relationship between student's perception and performance to ward science subjects.

METHODOLOGY

The study used correlational survey design to assess relationship between the study variables. The study assessed relationship between student perception and performance. In this study both Quantitative research paradigm and Qualitative research paradigm were used to obtain data which included numbers and their explanations also the design are more flexible thus the researchers are free to change the research design when the research is being carried out. Quantitative paradigm involved deductive reasoning arriving at the specific conclusions based on priory or self-evident proposition. It is deductive based on obtaining data which was accurate. It uses numbers, and numerical values to summarize the whole study, and looking on numerical data from participants of the research [19]. Qualitative research paradigm involve inductive which occurs from specific to general also involve explanations. Both probability and non-probability sampling procedures were employed in selecting participants of the study. The study utilized questionnaires and interview guides.

RESULTS

Students Perception towards Science Subjects in Form two National Examination in Moshi Municipality

The first research question wanted to find out that what is the Students perception towards science subjects in form two national examinations in Moshi Municipality, Students were asked to indicate agree or disagree that statement concerning about their perceptions towards science subjects. The response were represented and summarized in Table-1.

Table-1: Distribution of students' perceptions towards science subjects

Statements	Strong agree		Agree		Disagree		Strong disagree		Mean
	F	%	f	%	F	%	f	%	
Negative perception influence poor performance	44	44.0	47	47.0	7	7.0	2	2.0	1.67
Teacher is only person to make sure that students are performing well	16	16.0	38	38.0	36	36.0	10	10.0	2.40
Science subject are difficult to learn	14	14.0	57	57.0	27	27.0	2	2.0	2.17
Boys are seen to perform better in science subjects than girls	20	20.0	45	45.0	24	24.0	11	11.0	2.45
Learning by doing improve performance of students towards science subjects	51	51.0	42	42.0	5	5.0	2	2.0	1.58
The teaching methods used in science subjects are not appropriate	8	8.0	22	22.0	54	54.0	16	16.0	2.78
Language used in science subjects is difficult to understand	23	23.0	50	50.0	25	25.0	2	2.0	2.06
There is bright future for students after graduating	25	25.0	59	59.0	11	11.0	5	5.0	1.96

The findings in Table-1 Show that 91(91%) of students agreed that negative perception influence poor performance while only 9 (9%) of students disagreed to

the statements. This implies that most of students perform poorly in science subject due to negative perception. This show that negative perceptions towards

science subjects to the students influence poor performance in form two national examination .This statements is supported by Ignocia, Nietoand Barona [7] on his study found that students believing that the science subjects are very tough they tend to perceive that the science subjects could be done by those who are genius students .Therefore teachers and different stake holders must motivate ,advice and encourage students in order to change their perceptions towards science subjects.

When the teachers were interviewed about perceptions of their students, most of the teachers maintained that there are negative perceptions on their school toward science subjects, one of the teacher said;

Students perceive that science subjects are difficult.

Another teacher said

Negative perception because most of the students perform poorly

It seems that most of students study science subjects because of the influential factors

The finding in Table-1 Indicates that 93(93%) of students agreed that learning by doing improve performance of students while 7(7%) of students disagreed the statements. This implies that availability of laboratory and laboratory equipments motivate

students to study science subjects, this finding supported by Freedman [20] on his study discovered that laboratory practical has high influence on academic performance to the students. Therefore there must be enough teaching and learning resources in order to influence students to study science subjects.

It is evidenced from the Table-1 That 65 (65%) of students agreed that boys are seen to perform better in science subjects than girls while 35 (35%) of students disagreed that statement. This implies that many students have negative perception on science subjects because they believe that girls are perform poorly than boys. This show that many girls students opt the science subjects due to negative perception on them, This supported by Daudi, S [21] on his study about factors influencing academic performance he discovered that girls perform better like boys but they tend to avoid science subjects. Therefore girls' students must know that science subjects are not only for boys.

Relationship between Student's Perception and Performance towards Science Subjects

The second research question wanted to find out the Relationship between student's perception and performance towards science subjects in form two national examinations in Moshi Municipality, Students were asked to indicate yes or no to the statement. The response were represented and summarized in Table-2.

Table-2: Relationship between student's perception and performance towards science subjects

Statements	Yes		No	
	f	%	f	%
There is any relationship between student's perception and performance?	93	93.0	7	7.0
In order for students to perform well they must create positive perception towards science subjects	90	90.0	10	10.0
Teacher must encourage positive perception in order to improve performance	94	94.0	6	6.0
The status of science subjects' performance is always poor.	66	66.0	34	34.0
Science subject must be given special attention compare to other subjects.	88	88.0	12	12.0

Table-2 Show that 7(7%) of student disagreed that there is relationship between student perception and performance towards science subjects while 93(93%) of students agreed that statement. This implies that most of student's perform poorly in science subjects due to their negative perception. This finding supported by Mensah [10] on his study he discovered that teachers who have positive perceptions towards science subjects they tend to create confidence and awareness to their students to have better performance on science and mathematics. This show that the relationship which is existing between perception and performance play great role to the students' .Therefore teachers and other educators must make students to perceive positive in order for them to perform well on their examinations.

When the same question was asked to the teachers many of teachers agreed that there is

relationship between perception and performance towards science subjects.

One of the teacher said

Not all the time that perception and performance can relate because some of the students have positive perception but always fail their examinations

Another teacher said

There is negative perception because most of students who perform poorly

Therefore perception play great role in performance, though it seems there is another factors that hinder students' performance towards science subjects.

Table-2 Show that 12(12%) of students disagreed that science subjects must be given special

attention compare to other subjects while majority of students 88 (88%) agreed that statement. This implies that there must bright future for those students who are studying science subjects; this will make students to learn effectively and perform better in science subjects. This concurred by Francis [11] on his study he discovered that science subjects in general has high status. Therefore science must be given first priorities compared with other subjects in order to the development of science and technology.

Challenges Facing Performance towards Science Subjects

The third research question was aimed at investigating the Challenges facing performance towards science subjects, students were asked to provide their views if there is a challenges facing their performance towards science subjects. Their responses are summarized in the Table-3.

Table-3: Distribution on challenge facing student's performance towards science subjects

Challenges	F	%
Poor motivation to the students	78	78.0
Lack of competent teacher	72	72.0
Insufficiency of laboratory apparatus and equipment	78	78.0
Inadequate of teaching and learning resources	81	81.0

In Table-3 Indicate that 78(78%) of students mentioned poor motivation to the students is the challenge facing their academic performance. This implies that performance of the students it depend much on motivation from different stakeholders. This study concurred by Carpel [22] advocated that lack of motivation for both science and mathematics teachers and students caused a decline in number of students studying science subjects. Therefore motivation must be applied in school in order to encourage performance of students towards science subjects.

Finding in Table 4.6 indicate that 72(72%) of students said that lack of competent teachers is the challenge facing their academic performance towards science subjects. This implies that many secondary school have inadequate of competent of science teachers, this finding supported by Shirima, G [23] on her study about attitude of students towards science subjects she discovered that there is lack of trained teachers. Therefore there must be competent teachers in order to the students to perform well towards science subjects.

The finding in Table-3 Revealed that 78(78%) of students listed Insufficiency of laboratory apparatus is among the challenge facing their academic performance. This implies that from the finding majority of students perform poorly towards science subjects, this finding is supported by Freedman [20] on his study he discovered that laboratory practical improve performance of students towards science subjects. Therefore laboratory apparatus must be available in school in order to the students to do enough practical.

It is evidenced from the Table-3 That 81(81%) of students mentioned inadequate of teaching and learning resources is the major challenge facing students' performance towards science subjects. This

implies that most of students perform poorly in science subjects due to lack of teaching and learning resources ,This finding supported by Mwangi [15] on her study discovered that lack of textbook and other teaching and learning resources contribute poor performance to the students. Therefore there must be enough teaching and learning resources in order to improve performance of students towards science subjects.

Apart of students to be asked that question, teachers on their side asked if they get enough support from administration in order to improve students' academic performance. Most of them agreed the statement that they get enough support from administration.

One of the teacher said

Yes we get enough support from administration but students themselves are not interesting to study science Subjects, so what can we do''.

Another teacher said “

Administration gives us enough support but school has no enough resources for teaching and learning process, so we fail”.

Therefore many teachers tried their level best to improve performance of students towards science subjects but the problem is that many schools has no enough teaching and learning materials and resources

Ways to Improve Students' Perception towards Science Subjects

Results according to research question four on ways to improve students' perception towards science subjects. Students were asked to mention the ways that help to improve their perception towards science subjects. Their responses are summarized in the Table-4.

Table-4: Ways that help to improve student's perceptions towards science subjects

Ways	F	%
Motivations to the students	81	81.0
To improve learning by doing	74	74.0

In Table-4 indicate that 81(81%) of students mentioned motivation is the way that helps to improve students perception towards science subjects. This implies that majority of students were sought that motivation is the best way to improve their perception towards science subjects. This study is supported by Maltese & Tai [17] on their study discovered that students perceptions influenced by motivations. Therefore different stakeholder must be play part on giving motivation to the students in order to improve their perceptions.

Finding in Table-4 show that 74 (74%) of students listed improvement of learning by doing is the way that can improve their perception of students towards science subjects. This implies that practical enables students to understand well and remember the contents taught by teacher, this finding concurred by Freedman [20] on his study discovered that learning by doing improve performance which is the result on improving perceptions to students. Therefore the laboratory must be improved in secondary school for the purpose of improving learning by doing to the students which change the negative perception of the students.

Teachers on the same items were interviewed, they responded by listing number of reasons such as enough teaching and learning materials for science subjects, emphasize group discussion, provision of motivation and teaching methodologies must be appropriate. One teacher considered that

We as teachers must be competent enough in order to improve perceptions

Another teacher on the same item responded that *I think priority to science teachers this will help us to concentrate to our work this will improve perceptions and then later will improve performance"*

Another teacher said *Advice giving to the students will help them to have positive perceptions, this situation will increase performance*

CONCLUSIONS OF THE STUDY

The study investigated the relationship between student's perceptions and performance towards science subjects in form two National examinations in Moshi municipality. Based on research questions the following conclusions were made;

The curriculum used for science subjects should be improved by creating better foundation this will help students to maintain positive perceptions.

Teachers and other stake holders should provide awareness to the students about the relationship that exist between perceptions and performance this will improve student's perception and then later to better performances.

Challenges like poor motivations to the students, lacks of competent teachers, insufficiency of laboratory apparatus and equipments, inadequate of teaching and learning resources should be addressed so that to improve students performances.

The perceptions of students should be improved through improving laboratories in school, increase number of science teachers in schools, improving the libraries especially for science subjects and to create the conducive environment for studying science subjects this must enable students to improve student's perceptions'.

RECOMMENDATION FOR ACTION

From the finding of the study, the researcher made the following recommendations;

Teachers and parents must encourage students to study science subjects by giving them incentives and motivations in order to improve their perceptions.

The ministry of education and vocational training must establish union among students who studying science subjects and prepare gifts and incentives for all students who performing better in science subjects, this situation will increase interest of students to study science.

All challenges that face students on performance of science subjects must be addressed by improving facilities, teaching and learning materials this situation will make students to perform better.

Government must provide enough teaching and learning materials in order to improve learning process toward science subjects, this situation will improve students' performance towards science subjects.

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