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Interest of Grade Ten Students Toward Physics Among Other Science Subjects, Case of Wolaita Soddo Town Governmental Secondary Schools, Ethiopia

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Abstract
This paper has proposed to investigate the interest in students towards physics among other science subjects. The investigation was carried out with 490 samples of grade ten students in wolaita soddo town governmental schools. Thus, overall result indicates that the interest in students towards physics is low and students hate to learn physics in comparison with other science subjects. The main causes to hate physics are the approach from teachers and the subject difficulty. From the result of this study it is shown that students are interested on other science subjects than physics because of other subjects are simple in general and contain simple topics.

Introduction

Physics is a dynamic discipline of science it is always developing and flourishing rapidly. The concepts and principles of Physics are function to various every day activities such as in the technology of transportation, communication, power generation, space discovery and exploration. Physics has contributed so much to the development and concordance between our life especially in this era of Science and Technology. Since technology is the most important vehicle through which humanity progresses, it could serve to ease much of the problems facing human beings such as world hunger, poverty, lack of access to education and other issues. The significance of physics, therefore, cannot be overemphasized. However, the declining interest to study science on the one hand and lacks interest to take physics course in school or avoiding physics as a college major, on the other has been a worldwide problem. The decline in enrollment and graduation rates in physics at all levels has been the case in many countries including the USA, UK, Germany, and the Netherlands (Tobias et al., 1999; Osborne et al., 2003, p. 1058). And also the study on the attitudes of elementary school students done by (Weingurgh, 1998) has shown that nearly fifty percent of students may lose interest in science at the primary schools and mentioned in (Craker, 2006).

In Ethiopia fewer students elect physics at the undergraduate levels, the majority of students assigned to study physics were blamed for lack of interest, low achievement and lacks academic success (Getenet, 2006), and low academic self-concept (Admassu et al., 2005) even as compared to their counterparts assigned to Biology, Chemistry, and Mathematics (Shibeshi et al., 2009). The reason for the problem is listed by different scholars like the subject physics is considered a difficult subject for students from secondary school to University and also for adults in graduate education (Erdemir, 2009). For developing country like Ethiopia, it needs a quick improvement in science education and appears to have been prepared to resolve issues of development in science and technology through its education and training policy. To make this practical, the Ethiopian Ministry of Education policy provides for a 70:30 admission ratio in tertiary institutions in favor of science and technology of which, natural science stream taking about 40% (Ministry of Education [MoE], 2008). Wolaita soddo is located in the southern region of Ethiopia. This study brought evidence for the interest in students toward physics at the governmental school of wolaita soddo town.

Statement of the problem

The study determined the interest in student towards the subject physics among other science subjects. Specifically, it required to answer following questions:

- What is the interest in student towards physics among other science subjects
- What are the causes of the student for finding the subject physics interested or hate?
- What are the causes of students for finding other science subjects interested?
- To compare the extent of interest between female and male students?

Purpose of the study

The purpose of the study is to investigate the interest in students toward the subject physics among other science subjects in governmental secondary schools of wolaita soddo town.

Methodology

The study was conducted in governmental schools of wolaita soddo town. This study adopted a survey method to collect the required data and students are randomly selected from each section of the class. The questionnaires

were distributed among 490 respondents selected from each section and collected. The attitude to student towards the subject physics among another science subject was measured with four items called VI= very interesting, I= interesting, NINH= neither interesting nor hate, H= hate and VH= very hate. The total score along the category indicate the interest in student to the subject. The item was followed by an open form item in which students were invited to write why thinks that. The questionnaire wording is encouraged students to write as many reasons as they can. The completed questionnaires coded and copied to Excel spreadsheet prepared to report to SPSS for data analysis. For data analysis very interesting and interesting is considered as the level to measure the interest of students towards the subject and hate and very hate taken as the level indicating how much students hate the subject.

Result and discussion

Table 1.Total respondents

			Frequency	Percent
Respondents		Female	240	49.0
		Male	250	51.0
		Total	490	100.0

The questionnaire was completed by 490 grade ten students. The male female ratio was 51/49.

Table2. Proportion of students found physics interested or hate.

Subject	Physics			
Respondents	No Male	No Female	Total No.	%
Very interesting	50	0	50	10.2
Interesting	70	20	90	18.4
Level of interest	***120***	***20***	***140***	***28.6***
Not interested or hate	100	110	210	42.9
Hate	30	80	110	22.4
Hate very much	0	30	30	6.1
Level of hate	***30***	***110***	***140***	***28.6***
Total	250	240	490	100

The table above shows that 140 (28.6%) are interested towards the subject physics, from those none of the female students are interested very much on physics. 140 (28.6%) of students hate the subject and none of the male students hate very much physics the remaining students not interested or hate the subject.

Table3. Proportion of students found chemistry interested or hate.

Subject	Chemistry			
Respondents	No male	No female	Total	%
Very interesting	110	20	130	26.5
Interesting	40	40	80	16.3
Level of interest	***150***	***60***	***210***	***42.5***
Not interested or hate	80	90	170	34.7
Hate	20	50	70	14.3
Hate very much	0	40	40	8.2
Level of hate	***20***	***90***	***110***	***22.5***
Total	250	240	490	100

The table figures that 210 (42.5%)s of students are interested in the subject chemistry from those 150 students are male and 60 students are female. 110 (22.5%) of students hate the subject and none of the male students hate very much physics. The remaining 170 students are not interested or hate the subject.

Table4. Proportion of students found mathematics interested or hate.

Subject	Mathematics			
Respondents	No Male	No Female	Total No	%
Very interesting	120	60	180	36.7
Interesting	40	90	130	26.5
Level of interest	***160***	***150***	***310***	63.2
Not interested or hate	60	40	100	20.4
Hate	30	30	60	12.2
Hate very much	0	20	20	4.1
Level of hate	***30***	***50***	***80***	16.3
Total	250	240	490	100

The level of interest towards the subject mathematics as the table above shows 310 (63.2%) and 80(16.3%) of students hate the subject. As table indicated none of the male students hate mathematics and 100(20.4%) of students note hate or interested in the subject.

Table5. Proportion of students found Biology interested or hate.

Subject	Biology			
Respondents	Male	Female	Total No.	%
Very interesting	170	110	280	57.1
Interesting	60	60	120	24.5
Level of interest	230	170	***400***	***81.6***
Not interested or hate	20	50	70	14.3
Hate	0	20	20	4.1
Hate very much	0	0	0	0
Level of hate	0	20	***20***	4.1
Total	250	240	490	100

As the table above indicated 400(81.6%) of students are interested in the subject physics and 20(4.1%) of students hate the subject. None of female and male students hate the subject and 70(14.3%) of students not interested or hate the subject.

Table 6. Predominant reason for hating physics

Student causes	No. Male	No. Female	Percent (%)
Teachers Approach	70 (28%)	110 (45%)	36.7
No Significance of the Subject	40 (16%)	0 (0%)	8.2
No Practical Session	40 (16%)	50 (20.8%)	18.4
Contains Difficult Unit	30 (12%)	40 (16.7%)	14.3
Difficulty of Subject	70 (28%)	40 (16.7%)	22.4
Total	250 (100%)	240 (100%)	100

As students responded on the above table majority of students hate or not interested in physics due to the approach of the teacher (36.7%) and secondly the subject difficulty (22.4%). The reason for declined interest of student is different for females and male students, teacher approach (45%) for and the second reason is the lack of practical session (20.8%).

Table 7. Predominant reason to be interested on other science subjects than physics.

Causes	No. Male	No. Female	Percent
Contains simple Unit	20 (8%)	100 (41.7%)	24.5
The significance of Subject	60 (24%)	40 (16.7%)	20.4
Because of Practical Session	40 (16%)	20 (8.3%)	12.2
Clear when learning	50 (20%)	30 (12.5%)	16.3
Simple	80 (32%)	50 (20.8%)	26.5
Total	250 (100%)	240 (100%)	100

The reason for students who are interested or interested very much on other science subject as responded by student is because the subject is simple to learn in general (26.5%) and subjects contain some simple contents (24.5%). The table showed that majority of female students are interested on other subjects because of other subjects contain simple units (41.7%) and the subjects are simple in general (20.8%).

Conclusion

From the findings of this study, it was established that students have very low interest towards physics compared with other science subjects and almost all female students hate the subject physics. The poor interest towards the subject is mainly due to the poor approach of teacher and the subject difficulty. Therefore, serious measures are

needed to improve the interest of students and special attention to the female students.

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