

Identification Of Challenges In The Quality Of Teaching Mathematics, Chemistry And Physics Of High School In Sivagangai District

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ABSTRACT *This study brings out challenges in the quality of teaching Mathematics, Physics & Chemistry education of higher secondary schools in Sivagangai district. The main objective of this study to investigate quality of Mathematics, Physics & Chemistry teaching technique at the secondary schools of Sivagangai district and to study the details about the curriculum (syllabus, content, chemicals, laboratories and schools environment). The research design used in this study is descriptive research. Data was collected from 100 students. Data is collected by structured questionnaire. The primary data collected from distribution of questionnaire to the respondents random sampling method was used and collect respondents opinion. The survey is conduct among the selected sample respondents.*

Keywords: *Challenges, Teaching, Assessment techniques.*

I. INTRODUCTION

The purpose of the study is to identify the key variables that affect the quality of chemistry, Mathematics and Physics teaching in the Secondary schools of Sivagangai District. The purpose of possible solutions for the identified problems. The study will be conducted in the secondary schools of Sivagangai District for the study, 10 schools. In the process, the curriculum (content, method of delivery, assessment techniques, availability of chemical and other laboratory equipments will be investigated). In addition, existing facilities, school environment, etc will be investigated. In addition, horizontal and vertical linkages between and among the three subjects will be assessed and then scientifically documented and the three subjects are prepared, organized and then distributed. In addition, the availability and affordability of reference books will also be investigated.

OBJECTIVES:

- To investigate the quality of Chemistry, Mathematics and physics teaching at the secondary schools of Sivagangai District.
- To study the details of the curriculum (syllabus, content, method of delivery, assessment techniques of the three subjects), facilities, chemicals, laboratories and schools environment.

II. RESEARCH METHODOLOGY

Research design is the basis of defining the research problem. The preparation of the design of the project is popularly known as research design. It was used in primary data was collected directly from the researcher adopted the descriptive research for the study. Research the school students through the questionnaire method. The probability Sample techniques are used to Simple random sampling and the sample size is 100 in this study. This Chapter describes the research design methods and procedures that were used to investigate and describe the Challenges Quality of teaching Mathematics, Physics & Chemistry. In this study, simple percentage & Chi-Square analysis were used for analyzing the data.

III. REVIEW OF LITERATURE

Many researchers have identified professional development as one method for improving teacher effectiveness. Professional development can be defined as the processes that assist teachers in developing deep content knowledge about the subjects they teach, and in turn, improve student learning experiences (Guskey, 2003; The National Staff Development Council[NSDC], 2001). The McKinsey report (McKinsey & Company 2007: 5) into the world's top school systems argued that three things matter most: "1) getting the right people to

become teachers, 2) developing them into effective instructors, and 3) ensuring that the system is able to deliver the best possible instruction for every child.” The report argued that the quality of an education system cannot exceed the quality of its teachers. However, there are many factors that affect the quality of teaching because the outcomes of education are co-produced (Moodie 2010), so while producing high quality outcomes without high quality teaching is difficult, high quality teaching may be supported or undermined by a range of factors.

IV. SIMPLE PERCENTAGE ANALYSIS

THE TABLE SHOWING THAT GENDER OF THE RESPONDENTS

S.No.	Gender	No. of Respondents	Percentage
1	Male	51	51
2	Female	49	49
	Total	100	100

Source: Primary data

INTERPRETATION

The above table exhibits that 51% of the respondents are Male and 49 % of the respondents are Female.

THE TABLE SHOWING THAT NEW TECHNOLOGY USED

S.No.	New Technology	No. of Respondents	Percentage
1	Projector	16	16
2	Smart class	48	48
3	Presentation	16	16
4	Chart	20	20
	Total	100	100

Source: Primary data

INTERPRETATION

The above table shows that 16% of the respondents are said using the Projector,48% of the respondents are said using the Smart class,16% of respondents are said using the Presentation and 20% of the respondents are said using the Chart.

DEFINITION OF CHI-SQUARE

A chi-square test is a statistical test commonly used for testing independence and goodness of fit. Testing independence determines whether two or more observations across two populations are dependent on each other (that is, whether one variable helps to estimate the other).

HYPOTHESIS

HO : There is no significant difference between gender and new technology used

H1 : There is significant difference between gender and new technology used

CHI-SQUARE TEST

GENDER & USED NEW TECHNOLOGY CROSSTABULATION

Gender of Respondents	Projector	Smart Class	Presentation	Chart	Total
Male	8	29	6	9	52
Female	8	19	10	11	48
Total	16	48	16	20	100

CHI-SQUARE TEST

Chi-Square	Value	Degrees of Freedom	Asymp.sig (2-sided)
Pearson Chi-Square	3.128	3	.372
Likelihood Ratio	3.150	3	.369
Linear-by-Linear Association	.952	1	.329
Number of valid cases	100		

Factor	Calculated value	Table value	Degree of freedom	Level of Significance
New Technology	3.128	7.815	3	0.05

INFERENCES

Since $7.815 > 3.128$, So We Accept the Null Hypothesis. There is no relationship between the Gender and used new technology.

FINDINGS

1. 51% of the respondents are Male and 49 %of the respondents are Female.
2. 16% of the respondents are said using the Projector,48% of the respondents are said using the Smart class,16% of the respondents are said using the Presentation and 20% of the respondents are said using the Chart.

V. CONCLUSION

The primary goal of this report is to identify to investigate the quality of teaching Mathematics, physics and Chemistry. In order to foster a responsive higher secondary schools. The all teachers are valued equally and treated with respect. To that end project report calls for an increase in the number of new technology used in the teaching method. The student quality is assessment of Mark based and seminar, quiz and project. . Meanwhile, it is recommended that schools implement team teaching of Mathematics so that they may poor knowledge of different topics to maximize students' understanding and the implementation of existing policies and the initiation of new policies and procedures.

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