



NIHERST

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OF HIGHER EDUCATION
RESEARCH SCIENCE AND TECHNOLOGY

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Survey of Mathematics in Primary Schools 2007

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Foreword

In this publication, the National Institute of Higher Education, Research, Science and Technology (NIHERST) presents the results of the Survey of Mathematics in Primary Schools, 2007.

The Survey of Mathematics in Primary Schools, 2007 was a study of teachers in Standards 1 to 5 from a representative sample of public and private primary schools. The major objectives of this study were to compile data on the profile of primary school teachers, training needs, difficulties encountered in teaching mathematics and their perceptions of the subject. The adequacy and availability of school infrastructure and support systems available for the teaching of primary school mathematics were also addressed in the enquiry. This included access to mathematics education workshops, resource personnel, teaching and assessment methods, equipment and professional literature.

Primary education in mathematics is critical to the total development of the student in the formative years of learning. A supporting environment and adequately qualified and trained teaching personnel are essential indicators for students' participation and sustained interest in mathematics, science and technology. The results of this study are therefore intended to provide data on operationally relevant indicators necessary for improving the quality of mathematics education to the benefit of all stakeholders.

NIHERST wishes to thank the Ministry of Education for approving the conduct of this study in primary schools. We also acknowledge the co-operation of the teachers who willingly provided the data collated in this report.

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Executive Summary

- ❖ Of the total sample of 213 primary school teachers, 23% were males and 77% females, representing a 1:3 male to female ratio approximately. By standard, however, the male to female ratio was 1:7 in standard 1 compared to 1:2 in standard 5. The educational district of Port of Spain, which comprised of 9% males to 91% females or a 1:10 ratio, recorded the largest gender disparity while the lowest was observed in St Patrick with 35% males to 65% females or a 1:2 ratio.
- ❖ Females out-numbered their male counterparts in all types of school; in the government primary schools the male to female teacher ratio was 1:2 compared to 1:3 in the government-assisted primary schools. However, in the private primary schools the disparity in the male to female ratio of 1:8 reflected a more pronounced decline of the male teacher role model.
- ❖ The largest percentage (40%) of teachers was observed in the 30 - 39 age group, followed by approximately one-fifth (22%) in each of the 40-49 and 50-59 age cohorts. Approximately one-third (30%) of the teachers in the private schools was less than 30 years of age compared to 2% in government and 16% in government-assisted schools.
- ❖ Over a half (56%) of the sample of teachers reported service of 15 years and over while one-fifth (20%) indicated teaching experience in each case of 5-9 years and 10-14 years.
- ❖ The majority (71%) of primary school teachers reported Caribbean Secondary Education Certificate (CSEC)/O'level as their highest educational attainment in mathematics and a similar percentage (69%) had a Teacher's diploma as the highest professional qualification. Over 90% of the teachers in the public primary schools were professionally qualified while one-quarter (26%) in the private primary schools held no such qualification. In addition, only 8% of primary school teachers were in possession of the B.Ed. degree, the stated qualification goal for all teachers.
- ❖ Over ninety percent (94%) of the teachers used textbooks, mainly as a supplementary resource, to teach mathematics despite a substantial proportion (63%) who indicated that the texts were inadequate, especially in the lower standards, 1 and 2. Over a half (56%) of the teachers in private primary schools stated that the texts were adequate compared to approximately one-third in the government (35%) and government-assisted schools (30%).
- ❖ On the improvement of mathematics texts, a significant proportion (70%) of teachers stated that the prescribed texts should contain more activities/assessment exercises compared to the suggestions that texts should be in agreement with the syllabus (41%) and graded in terms of age-group/ability (36%).
- ❖ The majority of teachers devoted one to two hours weekly in each case to preparing or grading student tests or examinations (50%), planning lessons (45%) and professional reading and development (34%).
- ❖ The modal frequency with which teachers (46%) informed parents about student's achievement in mathematics was once a term; similar information was conveyed by one-third (32%) of the teachers monthly. Teachers in the private primary schools met more frequently with parents than their counterparts in the government and government-assisted schools.
- ❖ Approximately one-third (30%) of the sample of primary school mathematics teachers indicated that meetings were held once a term with other teachers in their subject area to discuss and plan curriculum or teaching approaches.
- ❖ The data reveal that while 46% of the mathematics teachers had a lot of influence on the subject matter to be taught, the response from the majority of teachers shows that they exerted considerably less influence on the acquisition of materials and supplies (29%) and specific textbooks (18%).
- ❖ Almost all the primary school teachers (91%), especially those in the private schools (100%), agreed that the Secondary Entrance Assessment (SEA) examination in mathematics prepared students in the subject for secondary school.
- ❖ The modal number of mathematics period was ten (28%) each week, followed by five periods (26%) weekly. On a weekly basis, mathematics was taught more often in standards 4 and 5 than in the lower standards.

- ❖ Approximately two-fifths of the sample of teachers identified fractions (22%), decimals (22%) and geometry (18%) as the most difficult areas of the mathematics syllabus for primary school students to conceptualise. The data, however, shows that the difficulty encountered with fractions in standard 1 declined as students progressed towards standard 5. A relatively large percentage of teachers of standards 3 to 5 reported difficulty with decimals amongst students.
- ❖ In general, the most frequently performed mathematical activity was the practice of computational skills at every lesson (41%) and most lessons (48%), followed by working in groups at every and most lessons as stated by 37% of the teachers accumulatively.
- ❖ Three-quarters (76%) of the teachers assigned mathematics homework everyday mainly of duration 15-30 minutes (Tables 26 and 28). As students moved up the primary school system from standard 1 to 5 homework assignment increased; three-fifths (57%) of the standard one teachers gave homework everyday compared to almost all (98%) in the case of the standard five.
- ❖ The most significant indicator used to determine students' progress in mathematics was teacher-made tests (100%), followed by responses of students in class (98%).
- ❖ A significant percentage (81%) of the sample of mathematics teachers agreed that primary schools should operate like secondary schools, utilising teachers in specialised fields. There was also a substantial level of agreement (52%) that students need to learn to read and write before mathematics can be successfully taught. However, over a half disagreed that most teachers had an insufficient understanding of how children learn (63%), that they generally had an inadequate background for the teaching of mathematics (61%) and there was a lack of suitable mathematics literature in their schools (56%).
- ❖ A substantial percentage of teachers identified the lack of parental interest in children's learning and progress (62%), student absenteeism (55%), disruptive students (51%), students who came from a wide range of backgrounds (46%) and the shortage of instructional equipment (43%) as key issues affecting the teaching of mathematics.
- ❖ A significant proportion (85%) of the primary school teachers, especially in Tobago (94%), St. Patrick (92%), Caroni (90%) and Victoria (88%), had attended mathematics workshops, to which exposure at least once in the last five years was reported by 86%.
- ❖ Attendance at workshops on teaching methods (79%) was considerably higher when compared to assessment (47%) and curriculum (41%).
- ❖ By attending workshops in mathematics most primary school teachers (83%) benefited from exposure to new teaching techniques and over a half (59%) from alternative forms of assessment and the provision of content knowledge (55%).
- ❖ Generally, the problems teachers encountered when applying the content of workshops were lack of time (66%), mainly in the educational districts of South Eastern (94%), Victoria (82%), St. George (73%) and North Eastern (73%), and lack of materials (57%), especially in Caroni (77%).

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Methodology

Introduction

The empirical results of this study on manpower, physical infrastructure and curriculum content are key indicators in the planning and evaluation of formal mathematics education. This publication should engage the attention of decision-makers, curriculum specialists, researchers, teaching personnel and, in general, stakeholders in mathematics education. This methodology describes the objectives, scope, coverage, data collection and processing of the results of the survey.

Objectives

The study focused on the quality and methods of teaching and the availability and adequacy of resources by monitoring:

- ◆ teachers' qualifications and training needs,
- ◆ adequacy of teaching materials, textbooks and equipment,
- ◆ areas of difficulty – teaching and understanding,
- ◆ teaching and assessment methods, and
- ◆ access to mathematics education workshops and professional literature.

Scope

The scope of this study included information on the demographic and social characteristics of the teachers such as age, gender, educational attainment, professional qualifications and years of service. Teachers also provided information about instructional practices, emphasis on the topics in the mathematics curriculum, teaching resources and assessment strategies. Data on time spent on activities outside of the school day, workshops attended and issues which limited the teaching of mathematics were also collected.

Coverage

The frame for the study was obtained from the website of the Ministry of Education and a 40% sample or 225 public and private primary schools were selected to participate in this enquiry. Of the 225 primary schools surveyed, 213 or 95% responded. Tables A, B and C show the number of schools selected and response rate by type of school.

Table A. Sample Selected by Educational District and Type of School

Educational district	Total	Type of school		
		Government	Government-assisted	Private
	(1)	(2)	(3)	(4)
All districts	225	56	135	31
Port of Spain	39	10	19	10
St. George East	43	12	22	9
North Eastern	19	5	13	1
South Eastern	20	3	15	2
Caroni	29	8	20	1
Victoria	33	7	23	3
St. Patrick	26	7	16	3
Tobago	16	5	8	3

Table B. Response by Educational District and Type of School

Educational district	Total	Type of school		
		Government	Government-assisted	Private
	(1)	(2)	(3)	(4)
All districts	213	52	134	27
Port of Spain	33	9	17	7
St. George East	39	10	22	7
North Eastern	18	4	13	1
South Eastern	20	3	15	2
Caroni	29	8	20	1
Victoria	32	6	23	3
St. Patrick	26	7	16	3
Tobago	16	5	8	3

Table C. Percentage Response by Educational District and Type of School

Educational district	All schools	Type of school		
		Government	Government-assisted	Private
	(1)	(2)	(3)	(4)
All districts	95	93	99	87
Port of Spain	85	90	89	70
St. George East	91	83	100	78
North Eastern	95	80	100	100
South Eastern	100	100	100	100
Caroni	100	100	100	100
Victoria	97	86	100	100
St. Patrick	100	100	100	100
Tobago	100	100	100	100

Sample Design

All schools were stratified by educational district and type of school as shown in Table A in the coverage. Three strata were obtained. The government-assisted schools were further streamed by their religious denominations. The following procedure was then adopted in selecting the standard as the sampling unit: commencing with stratum one, standard 1 was selected from the first listed school, standard 2 from the second school and similarly for standards 3, 4 and 5 from the next consecutive schools. This process was repeated until the schools in the stratum were exhausted. The procedure for selecting the standards from the subsequent strata was similar to that described for stratum one. The mathematics teachers of the selected standards were surveyed. Through this selection process, a representative sample of 213 teachers from public and private primary schools responded to the enquiry.

Data Collection

A questionnaire for teachers of the selected standards was designed to achieve the underlying objectives. The questionnaire was then delivered to each school and subsequently monitored by a group of experienced interviewers. Data collection commenced in May, 2007 and was completed by July, 2007.

Data Processing

As completed questionnaires were received, data were edited for consistency and omissions. Where discrepancies were identified, questionnaires were returned to the field for verification and correction as necessary. Edited data were then captured in the Statistical Package for the Social Sciences (SPSS) version 11.0 software which was used to produce the tabulations in this report.

Results

The results of the survey are presented in the various tabulations and graphics which follow

Table I. Number of Teachers by Educational District, Standard and Gender

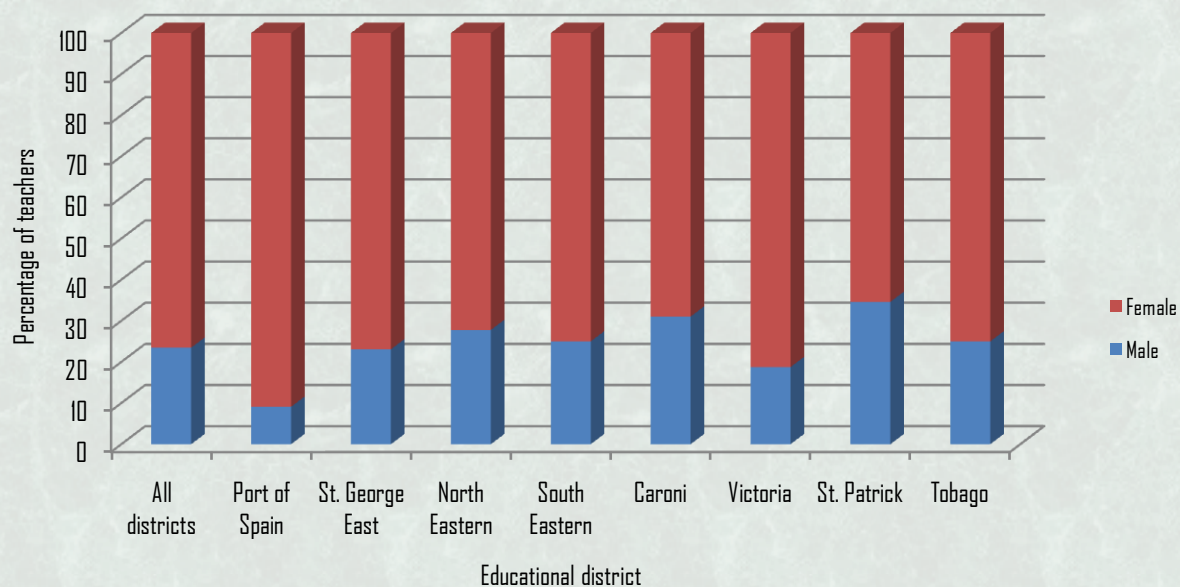
Educational district	All standards			Standard														
				1			2			3			4			5		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
All districts	213	50	163	46	6	40	44	5	39	44	11	33	38	14	24	41	14	27
Port of Spain	33	3	30	7	0	7	5	0	5	8	2	6	6	0	6	7	1	6
St. George East	39	9	30	9	0	9	10	3	7	7	2	5	6	4	2	7	0	7
North Eastern	18	5	13	4	0	4	4	2	2	4	1	3	3	0	3	3	2	1
South Eastern	20	5	15	3	1	2	4	0	4	4	0	4	5	1	4	4	3	1
Caroni	29	9	20	6	1	5	5	0	5	6	3	3	6	3	3	6	2	4
Victoria	32	6	26	7	2	5	8	0	8	7	1	6	4	1	3	6	2	4
St. Patrick	26	9	17	6	2	4	5	0	5	5	1	4	5	4	1	5	2	3
Tobago	16	4	12	4	0	4	3	0	3	3	1	2	3	1	2	3	2	1

Table Ia. Percentage of Teachers by Educational District, Standard and Gender

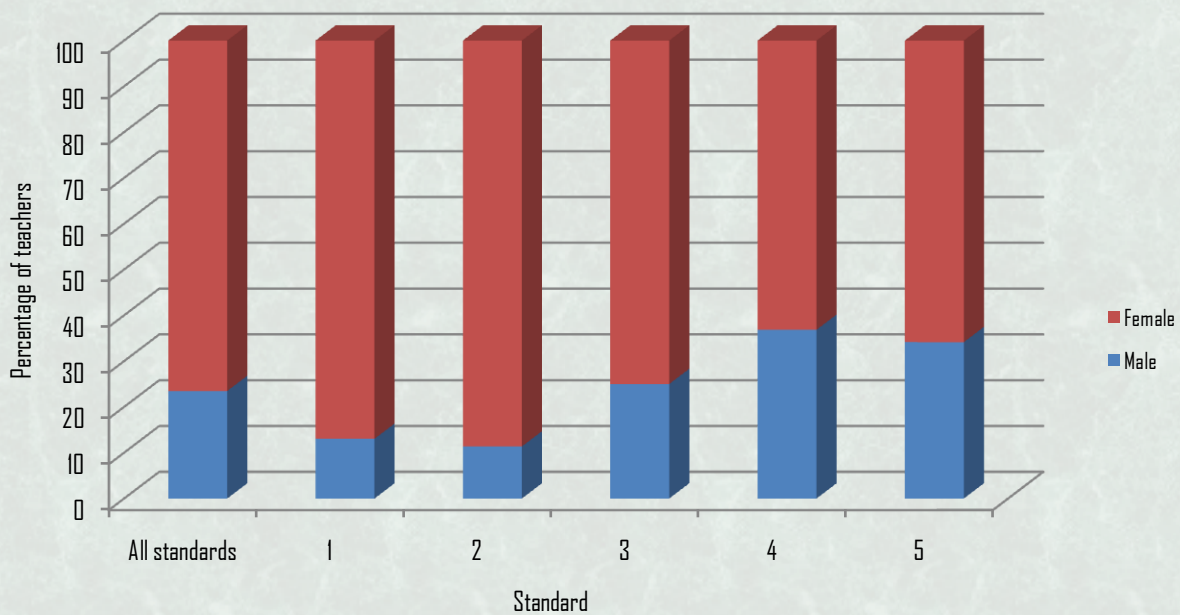
Educational district	All standards			Standard														
				1			2			3			4			5		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
All districts	100	23	77	100	13	87	100	11	89	100	25	75	100	37	63	100	34	66
Port of Spain	100	9	91	100	0	100	100	0	100	100	25	75	100	0	100	100	14	86
St. George East	100	23	77	100	0	100	100	30	70	100	29	71	100	67	33	100	0	100
North Eastern	100	28	72	100	0	100	100	50	50	100	25	75	100	0	100	100	67	33
South Eastern	100	25	75	100	33	67	100	0	100	100	0	100	100	20	80	100	75	25
Caroni	100	31	69	100	17	83	100	0	100	100	50	50	100	50	50	100	33	67
Victoria	100	19	81	100	29	71	100	0	100	100	14	86	100	25	75	100	33	67
St. Patrick	100	35	65	100	33	67	100	0	100	100	20	80	100	80	20	100	40	60
Tobago	100	25	75	100	0	100	100	0	100	100	33	67	100	33	67	100	67	33

Table I shows the distribution of mathematics teachers surveyed by educational district, standard and gender. Of the total sample of 213 primary school teachers, 23% were males while 77% were females, representing a 1:3 male to female ratio approximately. By standard, however, the male to female ratio was 1:7 in standard 1 compared to 1:2 in standard 5. A further review of the data by educational district reveals that Port of Spain, which comprised of 9% males to 91% females or a 1:10 ratio, recorded the largest gender disparity while the lowest was observed in St. Patrick with 35% males to 65% females or a 1:2 ratio.

Chart 1: Percentage of Teachers by Educational District and Gender



**Chart 2: Percentage of Teachers by Standard and Gender
All Districts**



Source: Table 1a

	Male	Female
All standards	23	77
1	13	87
2	11	89
3	25	75
4	37	63
5	34	66

Table 2. Number of Teachers by Type of School, Standard and Gender

Type of school	All standards			Standard														
				1			2			3			4			5		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
All schools	213	50	163	46	6	40	44	5	39	44	11	33	38	14	24	41	14	27
Government	52	17	35	11	2	9	9	2	7	10	2	8	10	5	5	12	6	6
Government - assisted	134	30	104	29	4	25	30	3	27	28	9	19	23	8	15	24	6	18
Private	27	3	24	6	0	6	5	0	5	6	0	6	5	1	4	5	2	3

Table 2a. Percentage of Teachers by Type of School, Standard and Gender

Type of school	All standards			Standard														
				1			2			3			4			5		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
All schools	100	23	77	100	13	87	100	11	89	100	25	75	100	37	63	100	34	66
Government	100	33	67	100	18	82	100	22	78	100	20	80	100	50	50	100	50	50
Government - assisted	100	22	78	100	14	86	100	10	90	100	32	68	100	35	65	100	25	75
Private	100	11	89	100	0	100	100	0	100	100	0	100	100	20	80	100	40	60

Females out-numbered their male counterparts in all types of school and standards. In the government primary schools the male to female teacher ratio was 1:2 compared to 1:3 in the government-assisted primary schools. However, in the private primary schools the disparity in the male to female ratio of 1:8 reflected a more pronounced decline of the male teacher as a role model.

Chart 3: Percentage of Teachers by Type of School and Gender

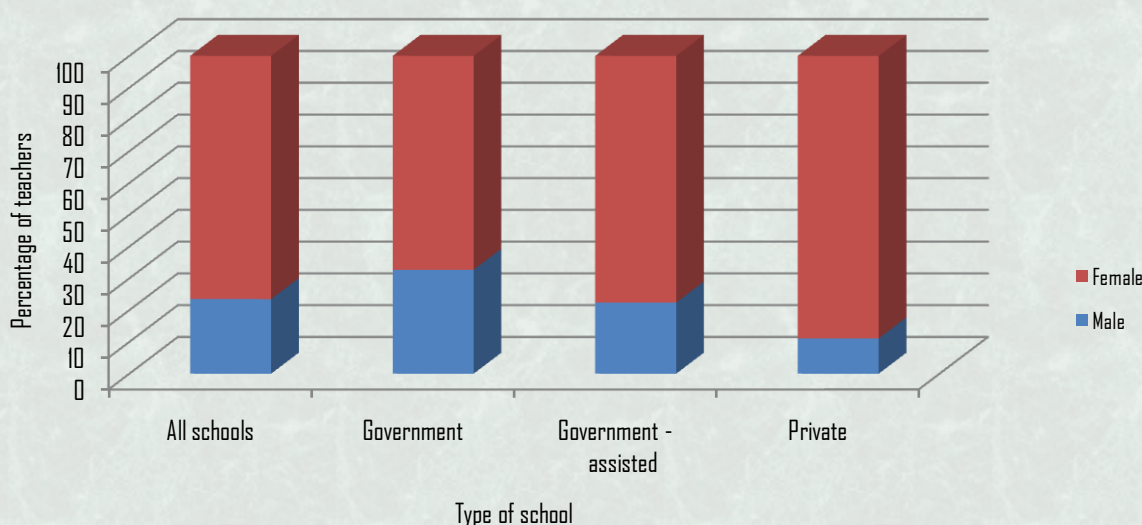


Table 3. Number of Teachers by Educational District, Type of School and Age Group

Educational district	Type of school	Total	Age group - years				
			Under 20	20-29	30-39	40-49	50-59
		(1)	(2)	(3)	(4)	(5)	(6)
All districts	All schools	213	1	29	87	46	47
	Government	52	0	1	23	17	11
	Government-assisted	134	0	21	54	26	33
	Private	27	1	7	10	3	3
Port of Spain	Total	33	0	7	13	5	7
	Government	9	0	0	5	1	3
	Government-assisted	17	0	5	5	3	4
	Private	7	0	2	3	1	
St. George East	Total	39	0	9	13	8	9
	Government	10	0	0	4	3	3
	Government-assisted	22	0	6	6	4	6
	Private	7	0	3	3	1	0
North Eastern	Total	18	0	3	9	4	2
	Government	4	0	0	3	1	0
	Government-assisted	13	0	3	6	2	2
	Private	1	0	0	0	1	0
South Eastern	Total	20	0	1	11	5	2
	Government	3	0	0	1	2	0
	Government-assisted	15	0	1	10	3	1
	Private	2	0	0	0	0	1
Caroni	Total	29	0	1	10	10	8
	Government	8	0	0	3	4	1
	Government-assisted	20	0	1	7	6	6
	Private	1	0	0	0	0	1
Victoria	Total	32	0	2	13	6	10
	Government	6	0	0	3	2	1
	Government-assisted	23	0	1	10	4	8
	Private	3	0	1	0	0	1
St. Patrick	Total	26	0	4	12	2	8
	Government	7	0	0	3	2	2
	Government-assisted	16	0	3	7	0	6
	Private	3	0	1	2	0	0
Tobago	Total	16	1	2	6	6	1
	Government	5	0	1	1	2	1
	Government-assisted	8	0	1	3	4	0
	Private	3	1	0	2	0	0



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Table 3a. Percentage of Teachers by Educational District, Type of School and Age Group

Educational district	Type of school	Total	Age group - years				
			Under 20	20-29	30-39	40-49	50-59
		(1)	(2)	(3)	(4)	(5)	(6)
All districts	All schools	100	1	14	40	22	22
	Government	100	0	2	44	33	21
	Government-assisted	100	0	16	40	19	25
	Private	100	4	26	37	11	11
Port of Spain	Total	100	0	21	39	15	21
	Government	100	0	0	56	11	33
	Government-assisted	100	0	29	29	18	24
	Private	100	0	29	43	14	0
St. George East	Total	100	0	23	33	21	23
	Government	100	0	0	40	30	30
	Government-assisted	100	0	27	27	18	27
	Private	100	0	43	43	14	0
North Eastern	Total	100	0	17	50	22	11
	Government	100	0	0	75	25	0
	Government-assisted	100	0	23	46	15	15
	Private	100	0	0	0	100	0
South Eastern	Total	100	0	5	55	25	10
	Government	100	0	0	33	67	0
	Government-assisted	100	0	7	67	20	7
	Private	100	0	0	0	0	50
Caroni	Total	100	0	3	34	34	28
	Government	100	0	0	38	50	13
	Government-assisted	100	0	5	35	30	30
	Private	100	0	0	0	0	100
Victoria	Total	100	0	6	41	19	31
	Government	100	0	0	50	33	17
	Government-assisted	100	0	4	43	17	35
	Private	100	0	33	0	0	33
St. Patrick	Total	100	0	15	46	8	31
	Government	100	0	0	43	29	29
	Government-assisted	100	0	19	44	0	38
	Private	100	0	33	67	0	0
Tobago	Total	100	6	13	38	38	6
	Government	100	0	20	20	40	20
	Government-assisted	100	0	13	38	50	0
	Private	100	33	0	67	0	0

In terms of age distribution the largest percentage (40%) of teachers was observed in the 30 - 39 age group, followed by approximately one-third (33%) in each of the 40-49 and 50-59 age cohorts (Table 3a). Approximately one-third (30%) of the teachers in the private schools was less than 30 years of age compared to 2% in government and 16% in government-assisted schools.



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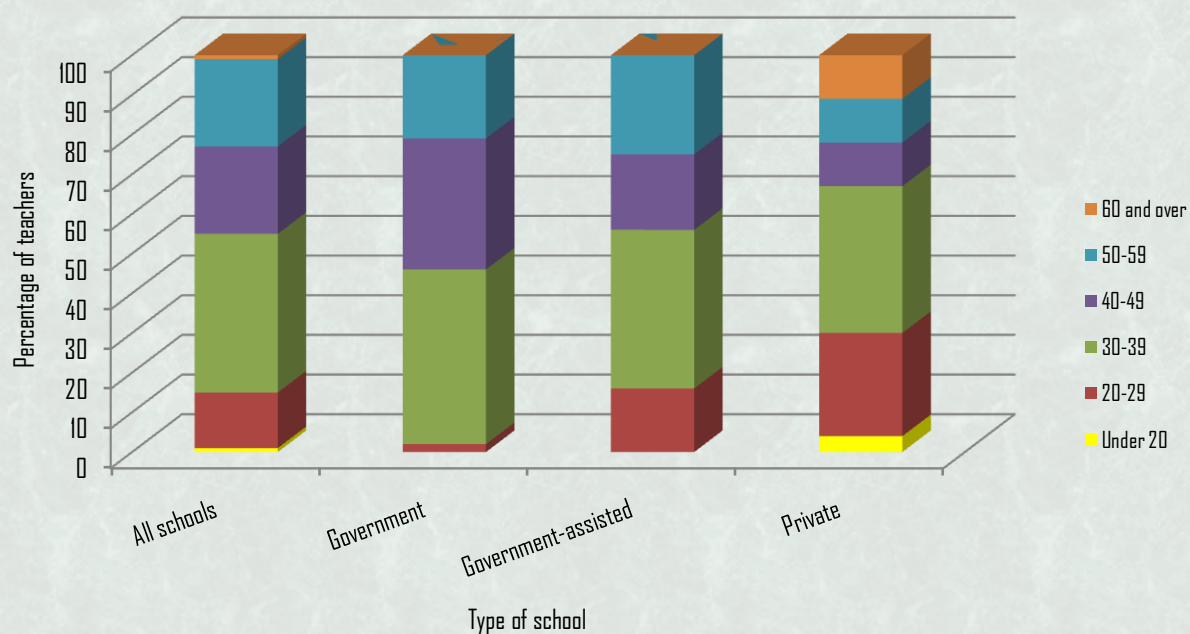
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Chart 4: Percentage of Teachers by Type of School and Age Group



Source: Table 3a

Table 4. Number of Teachers by Educational District, Type of School and Years of Service

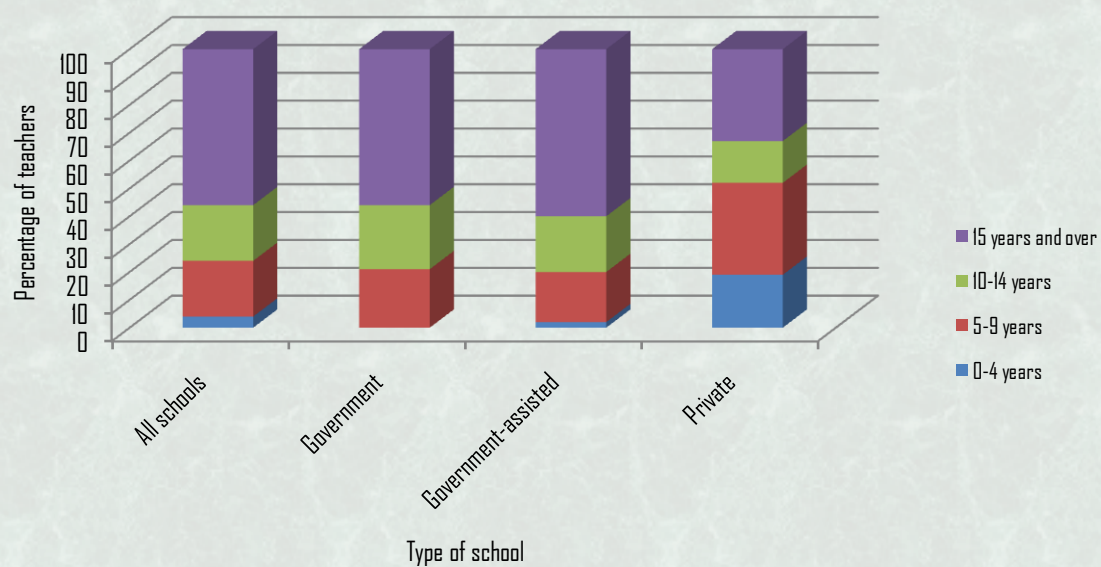
Educational district	Type of school	Total	Years of service			
			0-4 years	5-9 years	10-14 years	15 years and over
All districts	All schools	(1)	(2)	(3)	(4)	(5)
	Government	213	8	44	42	119
	Government-assisted	52	0	11	12	29
	Private	134	3	24	26	81
Port of Spain	Total	27	5	9	4	9
	Government	33	1	11	9	12
	Government-assisted	9	0	2	4	3
	Private	17	0	5	4	8
St. George East	Total	7	1	4	1	1
	Government	39	2	9	6	22
	Government-assisted	10	0	2	1	7
	Private	22	0	5	4	13
North Eastern	Total	7	2	2	1	2
	Government	18	2	3	5	8
	Government-assisted	4	0	1	0	3
	Private	13	2	2	5	4
South Eastern	Total	1	0	0	0	1
	Government	20	1	4	2	13
	Government-assisted	3	0	2	0	1
	Private	15	1	2	2	10
Caroni	Total	2	0	0	0	2
	Government	29	0	1	6	22
	Government-assisted	8	0	0	2	6
	Private	20	0	1	4	15
Victoria	Total	1	0	0	0	1
	Government	32	1	4	4	23
	Government-assisted	6	0	1	2	3
	Private	23	0	3	2	18
St. Patrick	Total	3	1	0	0	2
	Government	26	0	7	5	14
	Government-assisted	7	0	1	1	5
	Private	16	0	4	3	9
Tobago	Total	3	0	2	1	0
	Government	16	1	5	5	5
	Government-assisted	5	0	2	2	1
	Private	8	0	2	2	4
Tobago	Total	3	1	1	1	0
	Government	16	1	5	5	5
	Government-assisted	5	0	2	2	1
	Private	8	0	2	2	4

Table 4a. Percentage of Teachers by Educational District, Type of School and Years of Service

Educational district	Type of school	Total	Years of service			
			0-4 years	5-9 years	10-14 years	15 years and over
		(1)	(2)	(3)	(4)	(5)
All districts	All schools	100	4	20	20	56
	Government	100	0	21	23	56
	Government-assisted	100	2	18	20	60
	Private	100	19	33	15	33
Port of Spain	Total	100	3	33	27	36
	Government	100	0	22	44	33
	Government-assisted	100	0	29	24	47
	Private	100	14	57	14	14
St. George East	Total	100	5	23	15	56
	Government	100	0	20	10	70
	Government-assisted	100	0	23	18	59
	Private	100	29	29	14	29
North Eastern	Total	100	11	17	28	44
	Government	100	0	25	0	75
	Government-assisted	100	15	15	38	31
	Private	100	0	0	0	100
South Eastern	Total	100	5	20	10	65
	Government	100	0	67	0	33
	Government-assisted	100	7	13	13	67
	Private	100	0	0	0	100
Caroni	Total	100	0	3	21	76
	Government	100	0	0	25	75
	Government-assisted	100	0	5	20	75
	Private	100	0	0	0	100
Victoria	Total	100	3	13	13	72
	Government	100	0	17	33	50
	Government-assisted	100	0	13	9	78
	Private	100	33	0	0	67
St. Patrick	Total	100	0	27	19	54
	Government	100	0	14	14	71
	Government-assisted	100	0	25	19	56
	Private	100	0	67	33	0
Tobago	Total	100	6	31	31	31
	Government	100	0	40	40	20
	Government-assisted	100	0	25	25	50
	Private	100	33	33	33	0

Over a half (56%) of the sample of teachers reported service of 15 years and over while one-fifth (20%) indicated teaching experience in each case of 5-9 years and 10-14 years (Table 4a). A similar pattern of teaching experience was observed in the government and government-assisted schools. However, the majority (52%) of teachers in the private primary schools had less than ten years of

Chart 5: Percentage of Teachers by Type of School and Years of Service



Source: Table 4a

Table 5. Number of Teachers by Educational District, Type of School and Highest Level of Mathematics Education

Educational district	Type of school	Total	Highest level of mathematics education			
			CSEC*/O'level	A'level	Associate degree	Bachelor's degree
		(1)	(2)	(3)	(4)	(5)
All districts	All schools	213	150	49	9	5
	Government	52	29	19	2	2
	Government-assisted	134	108	23	1	2
	Private	27	13	7	6	1
Port of Spain	Total	33	21	8	3	1
	Government	9	6	2	0	1
	Government-assisted	17	13	3	1	0
	Private	7	2	3	2	0
St. George East	Total	39	31	6	1	1
	Government	10	6	3	0	1
	Government-assisted	22	20	2	0	0
	Private	7	5	1	1	0
North Eastern	Total	18	12	6	0	0
	Government	4	4		0	0
	Government-assisted	13	8	5	0	0
	Private	1	0	1	0	0
South Eastern	Total	20	15	4	0	1
	Government	3	0	3	0	0
	Government-assisted	15	14	1	0	0
	Private	2	1	0	0	1
Caroni	Total	29	18	9	1	1
	Government	8	4	3	1	0
	Government-assisted	20	13	6	0	1
	Private	1	1	0	0	0
Victoria	Total	32	22	8	2	0
	Government	6	1	4	1	0
	Government-assisted	23	20	3	0	0
	Private	3	1	1	1	0
St. Patrick	Total	26	19	5	1	1
	Government	7	5	2	0	0
	Government-assisted	16	13	2	0	1
	Private	3	1	1	1	0
Tobago	Total	16	12	3	1	0
	Government	5	3	2	0	0
	Government-assisted	8	7	1	0	0
	Private	3	2	0	1	0

* Caribbean Secondary Education Certificate

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Table 5a. Percentage of Teachers by Educational District, Type of School and Highest Level of Mathematics Education

Educational district	Type of school	Total	Highest level of mathematics education			
			CSEC*/O'level	A'level	Associate degree	Bachelor's degree
		(1)	(2)	(3)	(4)	(5)
All districts	All schools	100	71	23	4	2
	Government	100	56	36	4	4
	Government-assisted	100	81	17	1	1
	Private	100	48	26	22	4
Port of Spain	Total	100	64	24	9	3
	Government	100	67	22	0	11
	Government-assisted	100	76	18	6	0
	Private	100	29	43	29	0
St. George East	Total	100	80	15	3	3
	Government	100	60	30	0	10
	Government-assisted	100	91	9	0	0
	Private	100	71	14	14	0
North Eastern	Total	100	67	33	0	0
	Government	100	100	0	0	0
	Government-assisted	100	62	38	0	0
	Private	100	0	100	0	0
South Eastern	Total	100	75	20	0	5
	Government	100	0	100	0	0
	Government-assisted	100	93	7	0	0
	Private	100	50	0	0	50
Caroni	Total	100	63	31	3	3
	Government	100	50	38	13	0
	Government-assisted	100	65	30	0	5
	Private	100	100	0	0	0
Victoria	Total	100	69	25	6	0
	Government	100	17	67	17	0
	Government-assisted	100	97	13	0	0
	Private	100	33	33	33	0
St. Patrick	Total	100	73	19	4	4
	Government	100	71	29	0	0
	Government-assisted	100	81	13	0	6
	Private	100	33	33	33	0
Tobago	Total	100	75	19	6	0
	Government	100	60	40	0	0
	Government-assisted	100	88	13	0	0
	Private	100	67	0	33	0

The majority (71%) of primary school teachers reported CSEC/O'Level as their highest educational attainment in mathematics (Table 5), and a similar percentage (69%) had a Teacher's diploma as the highest professional qualification (Table 6). A further review of the data by type of school shows that over one-third (36%) of the teachers in government primary schools held A'level qualification in mathematics; in the private schools 26% reported A'level and 22% had an Associate degree as their highest qualification in mathematics. Over 90% of the teachers in government and government-assisted primary schools were professionally qualified while one-quarter (26%) of the teachers in the private primary schools held no such qualification (Table 6a). The data also show that only 8% of primary school teachers held the B.Ed degree, mostly with teaching experience of 10 years and over (Table 7), and with CSEC or its equivalent as their highest qualification in mathematics (Table 8).

Chart 6: Percentage of Teachers by Type of School and Highest Level of Education in Mathematics

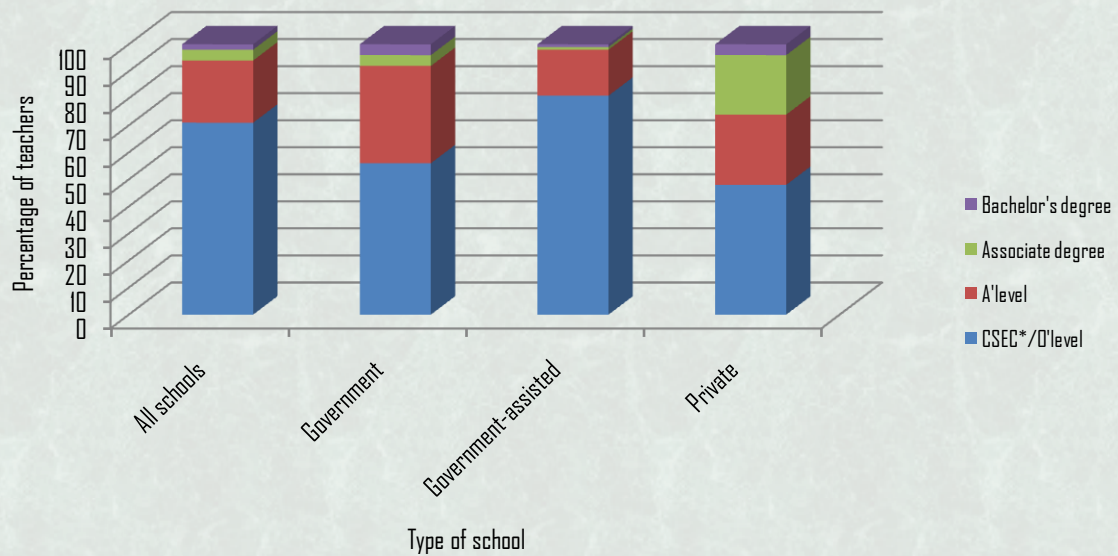
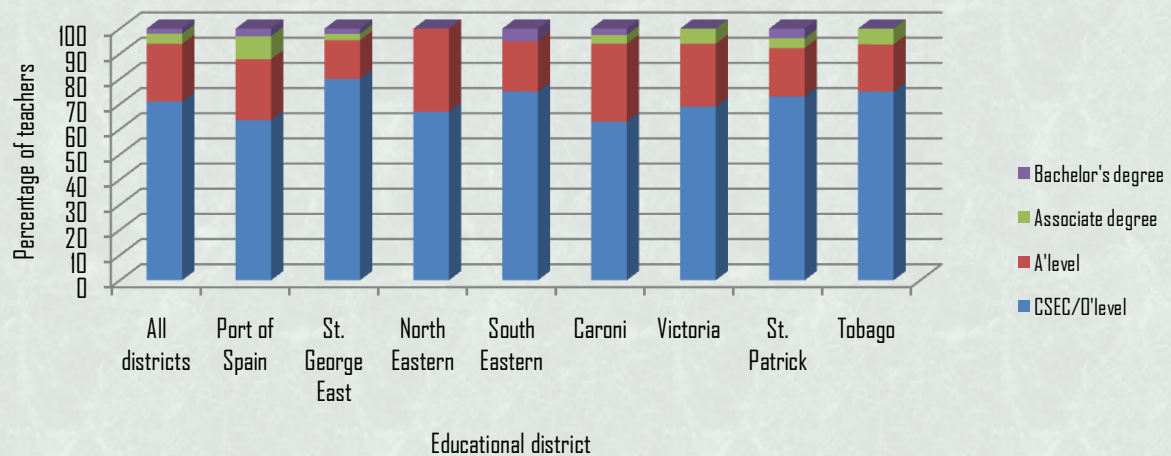


Chart 7: Percentage of Teachers by Educational District and Highest Level of Education in Mathematics



Source: Table 5a

Educational district	Total Teachers	CSEC/O'level	A'level	Associate degree	Bachelor's degree
All districts	100	71	23	4	2
Port of Spain	100	64	24	9	3
St. George East	100	80	15	3	3
North Eastern	100	67	33	0	0
South Eastern	100	75	20	0	5
Caroni	100	63	31	3	3
Victoria	100	69	25	6	0
St. Patrick	100	73	19	4	4
Tobago	100	75	19	6	0

Table 6. Number of Teachers by Educational District, Type of School and Highest Level of Professional Training

Educational district	Type of school	Total	Highest level of professional training					
			None	Teacher's diploma	Certificate in education	Diploma in education	B.Ed	M.Ed
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
All districts	All schools	213	15	148	17	10	18	4
	Government	52	2	37	4	2	5	2
	Government-assisted	134	6	100	8	6	12	2
	Private	27	7	11	5	2	1	0
Port of Spain	Total	33	4	24	3	1	1	0
	Government	9	1	7	0	0	1	0
	Government-assisted	17	0	15	1	1	0	0
	Private	7	3	2	2	0	0	0
St. George East	Total	39	5	23	5	1	3	1
	Government	10	1	6	1	0	1	1
	Government-assisted	22	2	15	2	1	2	0
	Private	7	2	2	2	0	0	0
North Eastern	Total	18	2	13	0	1	1	1
	Government	4	0	4	0	0	0	0
	Government-assisted	13	2	9	0	1	0	1
	Private	1	0	0	0	0	1	0
South Eastern	Total	20	1	14	2	0	3	0
	Government	3	0	2	0	0	1	0
	Government-assisted	15	1	10	2	0	2	0
	Private	2	0	2	0	0	0	0
Caroni	Total	29	0	23	3	0	3	0
	Government	8	0	5	2	0	1	0
	Government-assisted	20	0	17	1	0	2	0
	Private	1	0	1	0	0	0	0
Victoria	Total	32	1	24	2	2	1	2
	Government	6	0	4	1	0	0	1
	Government-assisted	23	0	19	1	1	1	1
	Private	3	1	1	0	1	0	0
St. Patrick	Total	26	2	21	0	1	2	0
	Government	7	0	7	0	0	0	0
	Government-assisted	16	1	12	0	1	2	0
	Private	3	1	2	0	0	0	0
Tobago	Total	16	0	6	2	4	4	0
	Government	5	0	2	0	2	1	0
	Government-assisted	8	0	3	1	1	3	0
	Private	3	0	1	1	1	0	0



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Table 6a. Percentage of Teachers by Educational District, Type of School and Highest Level of Professional Training

Educational district	Type of school	Total	Highest level of professional training					
			None	Teacher's diploma	Certificate in education	Diploma in education	B.Ed	M.Ed
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
All districts	All schools	100	7	69	8	5	8	2
	Government	100	4	71	8	4	9	4
	Government-assisted	100	4	75	6	5	9	1
	Private	100	26	41	18	7	4	0
Port of Spain	Total	100	12	73	9	3	3	0
	Government	100	11	78	0	0	11	0
	Government-assisted	100	0	88	6	6	0	0
	Private	100	43	29	29	0	0	0
St. George East	Total	100	13	59	13	3	8	3
	Government	100	10	60	10	0	10	10
	Government-assisted	100	9	68	9	5	9	0
	Private	100	29	29	29	0	0	0
North Eastern	Total	100	11	72	0	6	6	6
	Government	100	0	100	0	0	0	0
	Government-assisted	100	15	69	0	8	0	8
	Private	100	0	0	0	0	100	0
South Eastern	Total	100	5	70	10	0	15	0
	Government	100	0	67	0	0	33	0
	Government-assisted	100	7	67	13	0	13	0
	Private	100	0	100	0	0	0	0
Caroni	Total	100	0	79	10	0	10	0
	Government	100	0	63	25	0	13	0
	Government-assisted	100	0	85	5	0	10	0
	Private	100	0	100	0	0	0	0
Victoria	Total	100	3	75	6	6	3	6
	Government	100	0	67	17	0	0	17
	Government-assisted	100	0	83	4	4	4	4
	Private	100	33	33	0	33	0	0
St. Patrick	Total	100	8	81	0	4	8	0
	Government	100	0	100	0	0	0	0
	Government-assisted	100	6	75	0	6	13	0
	Private	100	33	67	0	0	0	0
Tobago	Total	100	0	38	13	25	25	0
	Government	100	0	40	0	40	20	0
	Government-assisted	100	0	38	13	13	38	0
	Private	100	0	33	33	33	0	0

Not stated	(8)	1 0 0 4	0 0 0 0	3 0 0 14	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
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Chart 8: Percentage of Teachers by Type of School and Highest Level of Professional Training

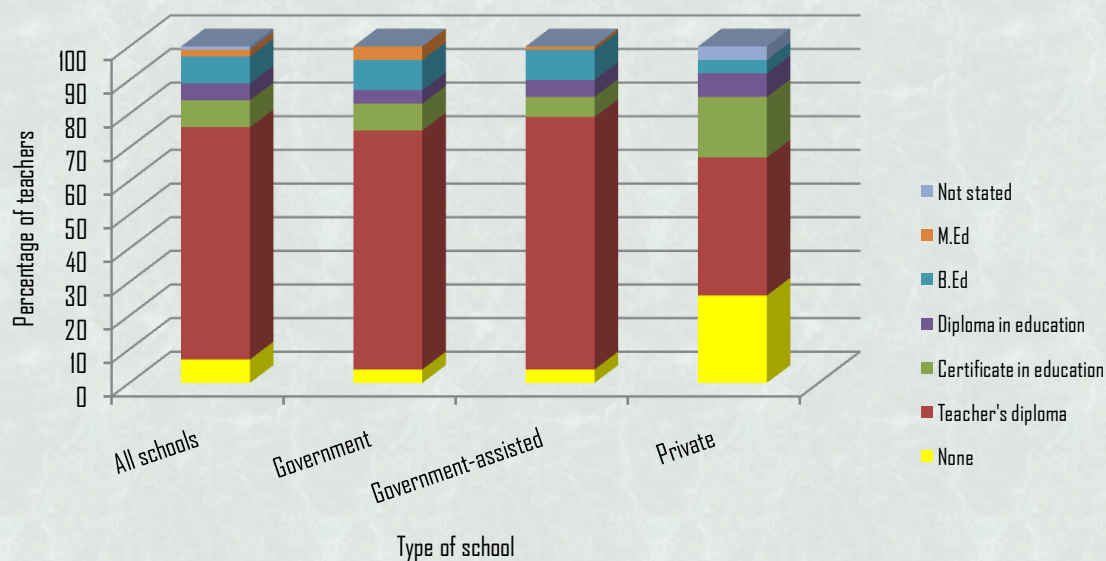
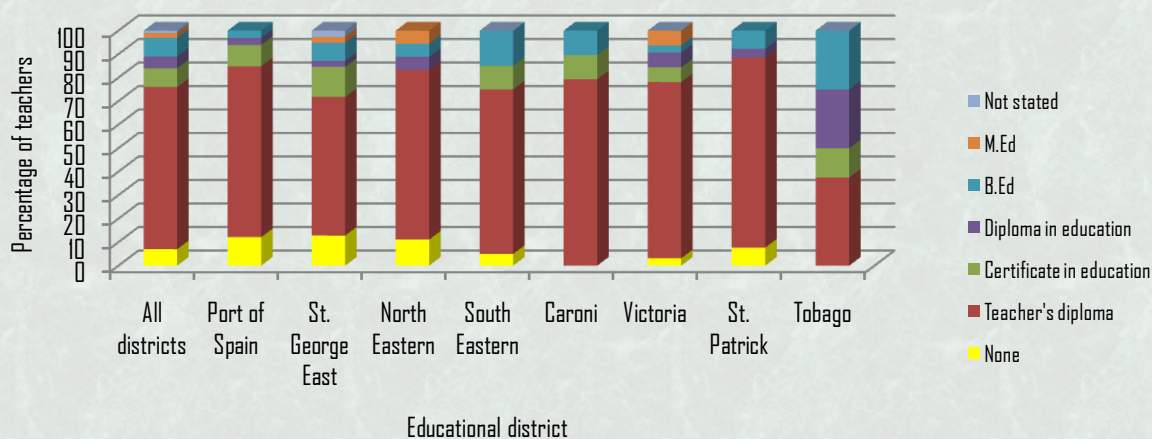


Chart 9: Percentage of Teachers by Educational District and Highest Level of Professional Training



Source: Table 6a

Educational	None	Teacher's	Certificate in	Diploma in	B.Ed	M.Ed	Not stated
All districts	7	69	8	5	8	2	1
Port of Spain	12	73	9	3	3	0	0
St. George East	13	59	13	3	8	3	3
North Eastern	11	72	0	6	6	6	0
South Eastern	5	70	10	0	15	0	0
Caroni	0	79	10	0	10	0	0
Victoria	3	75	6	6	3	6	0
St. Patrick	8	81	0	4	8	0	0
Tobago	0	38	13	25	25	0	0

Table 7. Number of Teachers by Years of Service and Highest Level of Professional Training

Years of service	Total	Highest level of professional training						
		None	Teacher's diploma	Certificate in education	Diploma in education	B.Ed	M.Ed	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total	213	15	148	17	10	18	4	1
0-4 years	8	5	2	0	1	0	0	0
5-9 years	44	3	29	3	5	2	1	1
10-14 years	42	3	31	2	0	5	1	0
15 years and over	119	4	86	12	4	11	2	0

Table 7a. Percentage of Teachers by Years of Service and Highest Level of Professional Training

Years of service	Total	Highest level of professional training						
		None	Teacher's diploma	Certificate in education	Diploma in education	B.Ed	M.Ed	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total	100	7	69	8	5	8	2	0
0-4 years	100	63	25	0	13	0	0	0
5-9 years	100	7	66	7	11	5	2	2
10-14 years	100	7	74	5	0	12	2	0
15 years and over	100	3	72	10	3	9	2	0

Chart 10: Percentage of Teachers by Years of Service and Highest Level of Professional Training

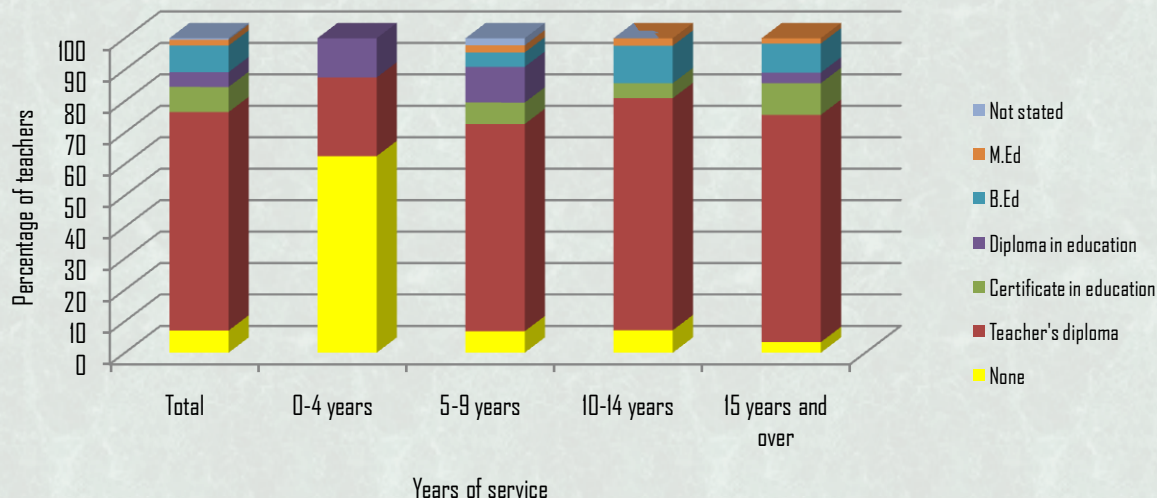


Table 8. Number of Teachers by Educational District, Highest Level of Mathematics Education and Professional Training

Educational district	Highest level of mathematics education	Total	Highest level of professional training					
			None	Teacher's diploma	Certificate in education	Diploma in education	B.Ed	M.Ed
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
All districts	Total	213	15	148	17	10	18	4
	CSEC/O'level	150	9	111	10	8	10	2
	A'level	49	5	31	5	1	5	2
	Associate degree	9	1	4	2	1	0	0
	Bachelor's degree	5	0	2	0	0	3	0
Port of Spain	Total	33	4	24	3	1	1	0
	CSEC/O'level	21	2	17	0	1	1	0
	A'level	8	1	5	2	0	0	0
	Associate degree	3	1	1	1	0	0	0
	Bachelor's degree	1	0	1	0	0	0	0
St. George East	Total	39	5	23	5	1	3	1
	CSEC/O'level	31	3	22	3	1	2	0
	A'level	6	2	1	2	0	0	1
	Associate degree	1	0	0	0	0	0	0
	Bachelor's degree	1	0	0	0	0	1	0
North Eastern	Total	18	2	13	0	1	1	1
	CSEC/O'level	12	2	8	0	1	0	1
	A'level	6	0	5	0	0	1	0
	Associate degree	0	0	0	0	0	0	0
	Bachelor's degree	0	0	0	0	0	0	0
South Eastern	Total	20	1	14	2	0	3	0
	CSEC/O'level	15	1	11	2	0	1	0
	A'level	4	0	2	0	0	2	0
	Associate degree	0	0	0	0	0	0	0
	Bachelor's degree	1	0	1	0	0	0	0
Caroni	Total	29	0	23	3	0	3	0
	CSEC/O'level	18	0	14	2	0	2	0
	A'level	9	0	8	1	0	0	0
	Associate degree	1	0	1	0	0	0	0
	Bachelor's degree	1	0	0	0	0	1	0
Victoria	Total	32	1	24	2	2	1	2
	CSEC/O'level	22	0	18	1	1	1	1
	A'level	8	1	6	0	0	0	1
	Associate degree	2	0	0	1	1	0	0
	Bachelor's degree	0	0	0	0	0	0	0
St. Patrick	Total	26	2	21	0	1	2	0
	CSEC/O'level	19	1	17	0	0	1	0
	A'level	5	1	3	0	1	0	0
	Associate degree	1	0	1	0	0	0	0
	Bachelor's degree	1	0	0	0	0	1	0
Tobago	Total	16	0	6	2	4	4	0
	CSEC/O'level	12	0	4	2	4	2	0
	A'level	3	0	1	0	0	2	0
	Associate degree	1	0	1	0	0	0	0
	Bachelor's degree	0	0	0	0	0	0	0



Not stated

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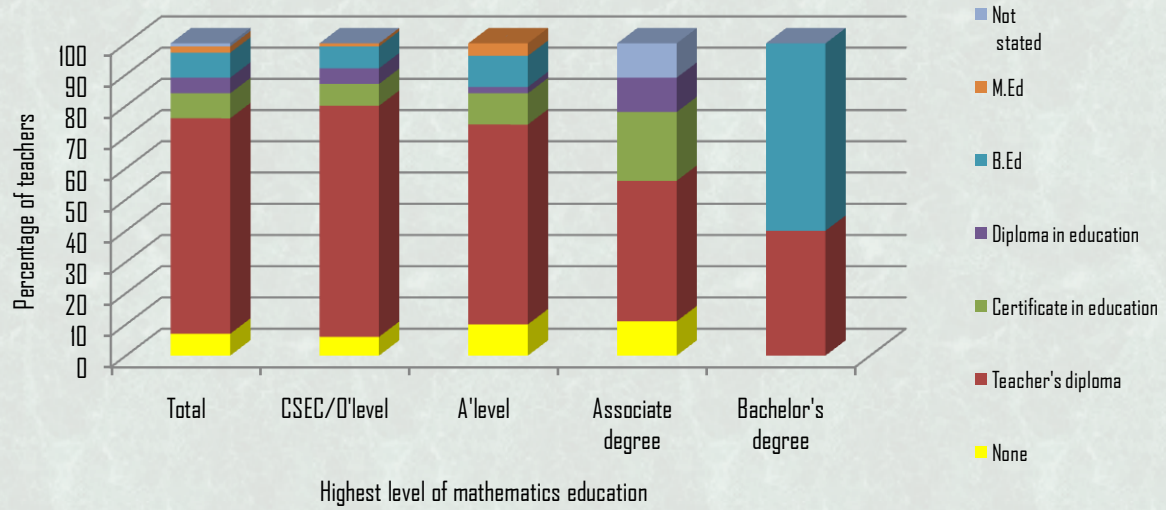
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Table 8a. Percentage of Teachers by Educational District, Highest Level of Mathematics Education and Professional Training

Educational district	Highest level of mathematics education	Total	Highest level of professional training					
			None	Teacher's diploma	Certificate in education	Diploma in education	B.Ed	M.Ed
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
All districts	Total	100	7	69	8	5	8	2
	CSEC/O'level	100	6	74	7	5	7	1
	A'level	100	10	64	10	2	10	4
	Associate degree	100	11	45	22	11	0	0
	Bachelor's degree	100	0	40	0	0	60	0
Port of Spain	Total	100	12	73	9	3	3	0
	CSEC/O'level	100	10	81	0	5	5	0
	A'level	100	13	63	25	0	0	0
	Associate degree	100	33	33	33	0	0	0
	Bachelor's degree	100	0	100	0	0	0	0
St. George East	Total	100	13	59	13	3	8	3
	CSEC/O'level	100	10	71	10	3	6	0
	A'level	100	33	17	33	0	0	17
	Associate degree	100	0	0	0	0	0	0
	Bachelor's degree	100	0	0	0	0	100	0
North Eastern	Total	100	11	72	0	6	6	6
	CSEC/O'level	100	17	67	0	8	0	8
	A'level	100	0	83	0	0	17	0
	Associate degree	0	0	0	0	0	0	0
	Bachelor's degree	0	0	0	0	0	0	0
South Eastern	Total	100	5	70	10	0	15	0
	CSEC/O'level	100	7	73	13	0	7	0
	A'level	100	0	50	0	0	50	0
	Associate degree	0	0	0	0	0	0	0
	Bachelor's degree	100	0	100	0	0	0	0
Caroni	Total	100	0	79	10	0	10	0
	CSEC/O'level	100	0	78	11	0	11	0
	A'level	100	0	89	11	0	0	0
	Associate degree	100	0	100	0	0	0	0
	Bachelor's degree	100	0	0	0	0	100	0
Victoria	Total	100	3	75	6	6	3	6
	CSEC/O'level	100	0	81	5	5	5	5
	A'level	100	13	75	0	0	0	13
	Associate degree	100	0	0	50	50	0	0
	Bachelor's degree	0	0	0	0	0	0	0
St. Patrick	Total	100	8	81	0	4	8	0
	CSEC/O'level	100	5	89	0	0	5	0
	A'level	100	20	60	0	20	0	0
	Associate degree	100	0	100	0	0	0	0
	Bachelor's degree	100	0	0	0	0	100	0
Tobago	Total	100	0	38	13	25	25	0
	CSEC/O'level	100	0	33	17	33	17	0
	A'level	100	0	33	0	0	67	0
	Associate degree	100	0	100	0	0	0	0
	Bachelor's degree	0	0	0	0	0	0	0

[illegible]

Chart II: Percentage of Teachers by Highest Level of Mathematics Education and Professional Training



Source: Table 8a

Table 9. Used Mathematics Textbook by Educational District and Standard

Educational district	Standard	Total	Use mathematics textbook
			Yes
	(1)	(2)	(3)
All districts	All standards	100	94
	Standard 1	100	91
	Standard 2	100	91
	Standard 3	100	96
	Standard 4	100	97
	Standard 5	100	95
Port of Spain	Total	100	91
	Standard 1	100	86
	Standard 2	100	100
	Standard 3	100	100
	Standard 4	100	83
	Standard 5	100	86
St. George East	Total	100	92
	Standard 1	100	89
	Standard 2	100	90
	Standard 3	100	100
	Standard 4	100	100
	Standard 5	100	86
North Eastern	Total	100	94
	Standard 1	100	75
	Standard 2	100	100
	Standard 3	100	100
	Standard 4	100	100
	Standard 5	100	100
South Eastern	Total	100	90
	Standard 1	100	100
	Standard 2	100	75
	Standard 3	100	75
	Standard 4	100	100
	Standard 5	100	100
Caroni	Total	100	100
	Standard 1	100	100
	Standard 2	100	100
	Standard 3	100	100
	Standard 4	100	100
	Standard 5	100	100

	- percentage of teachers
	No
	(4)
	6
	9
	9
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	5
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	14
	0
	0
	17
	14
	8
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Table 9. Used Mathematics Textbook by Educational District and Standard (continued)

Educational district	Standard	Total	Use mathematics textbook - percentage of teachers	
			Yes	No
	(1)	(2)	(3)	(4)
Victoria	Total	100	97	3
	Standard 1	100	100	0
	Standard 2	100	88	13
	Standard 3	100	100	0
	Standard 4	100	100	0
	Standard 5	100	100	0
St. Patrick	Total	100	92	8
	Standard 1	100	83	17
	Standard 2	100	80	20
	Standard 3	100	100	0
	Standard 4	100	100	0
	Standard 5	100	100	0
Tobago	Total	100	94	6
	Standard 1	100	100	0
	Standard 2	100	100	0
	Standard 3	100	67	33
	Standard 4	100	100	0
	Standard 5	100	100	0

Over ninety percent (94%) of the teachers used textbooks to teach mathematics (Table 9) despite a substantial proportion (63%) who indicated that the texts were inadequate, especially in the lower standards, 1 and 2, (Table 11). While a similar pattern of textbook usage was observed by type of school, over a half (56%) of the teachers in private primary schools stated that the texts were adequate compared to approximately one-third in the government (35%) and government-assisted schools (30%) (Table 12).

Chart 12: Used Mathematics Text book by Standard

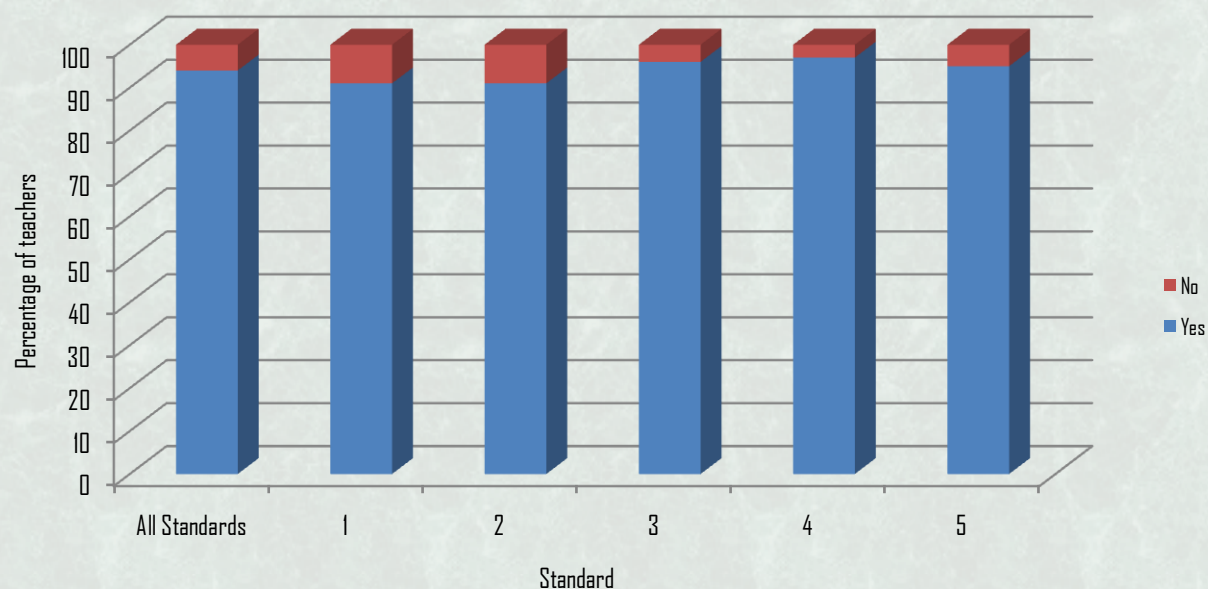
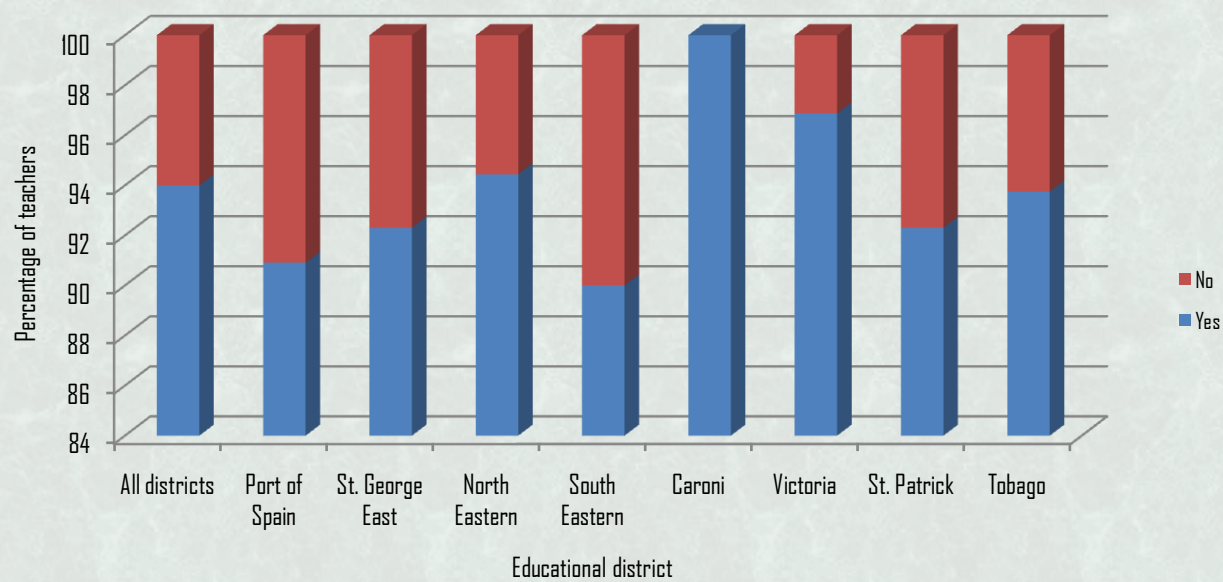


Chart 13: Used Mathematics Text book by Educational District



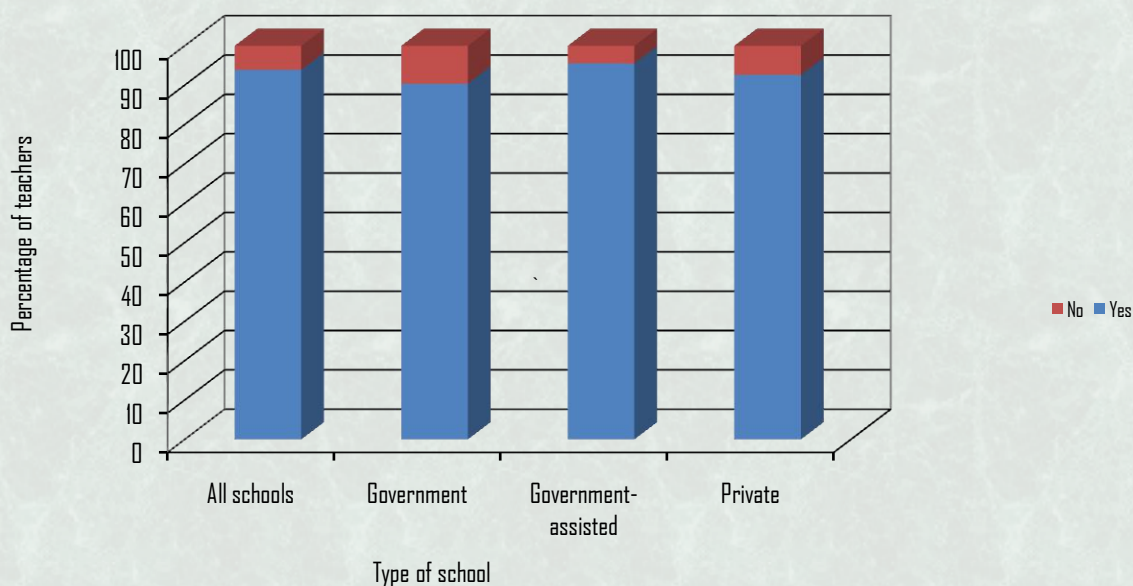
Source: Table 9

Educational district	Yes	No
All districts	94	6
Port of Spain	91	9
St. George East	92	8
North Eastern	94	6
South Eastern	90	10
Caroni	100	0
Victoria	97	3
St. Patrick	92	8
Tobago	94	6

Table 10. Used Mathematics Textbook by Type of School and Standard

Type of school	Standard	Total	Used textbook to teach mathematics - percentage of teachers	
			Yes	No
		(1)	(2)	(3)
All schools	All standards	100	94	6
	Standard 1	100	91	9
	Standard 2	100	91	9
	Standard 3	100	95	5
	Standard 4	100	97	3
	Standard 5	100	95	5
Government	Total	100	90	10
	Standard 1	100	82	18
	Standard 2	100	89	11
	Standard 3	100	100	0
	Standard 4	100	100	0
	Standard 5	100	83	17
Government-assisted	Total	100	96	4
	Standard 1	100	97	3
	Standard 2	100	90	10
	Standard 3	100	96	4
	Standard 4	100	96	4
	Standard 5	100	100	0
Private	Total	100	93	7
	Standard 1	100	83	17
	Standard 2	100	100	0
	Standard 3	100	83	17
	Standard 4	100	100	0
	Standard 5	100	100	0

Chart 14: Used Mathematics Textbook by Type of School



	Yes	No
All schools	94	6
Government	90	10
Government-a	96	4
Private	93	7

Table 11. Adequacy of Mathematics Textbook by Educational District and Standard

Educational district	Standard	Total	Adequacy - percentage of teachers			
			Yes	No	Somewhat	Not stated
		(1)	(2)	(3)	(4)	(5)
All districts	All standards	100	35	63	1	1
	Standard 1	100	12	81	2	5
	Standard 2	100	18	80	3	0
	Standard 3	100	40	60	0	0
	Standard 4	100	51	49	0	0
	Standard 5	100	56	44	0	0
Port of Spain	Total	100	40	60	0	0
	Standard 1	100	33	67	0	0
	Standard 2	100	0	100	0	0
	Standard 3	100	38	63	0	0
	Standard 4	100	60	40	0	0
	Standard 5	100	67	33	0	0
St. George East	Total	100	31	67	3	0
	Standard 1	100	0	100	0	0
	Standard 2	100	11	78	11	0
	Standard 3	100	14	86	0	0
	Standard 4	100	67	33	0	0
	Standard 5	100	83	17	0	0
North Eastern	Total	100	29	71	0	0
	Standard 1	100	0	100	0	0
	Standard 2	100	0	100	0	0
	Standard 3	100	75	25	0	0
	Standard 4	100	0	100	0	0
	Standard 5	100	67	33	0	0
South Eastern	Total	100	33	67	0	0
	Standard 1	100	0	100	0	0
	Standard 2	100	100	0	0	0
	Standard 3	100	33	67	0	0
	Standard 4	100	20	80	0	0
	Standard 5	100	25	75	0	0
Caroni	Total	100	34	66	0	0
	Standard 1	100	0	100	0	0
	Standard 2	100	0	100	0	0
	Standard 3	100	67	33	0	0
	Standard 4	100	33	67	0	0
	Standard 5	100	67	33	0	0

Table 11. Adequacy of Mathematics Textbook by Educational District and Standard (continued)

Educational district	Standard	Total	Adequacy - percentage of teachers			
			Yes	No	Somewhat	Not stated
		(1)	(2)	(3)	(4)	(5)
Victoria	Total	100	35	58	3	3
	Standard 1	100	14	57	14	14
	Standard 2	100	29	71	0	0
	Standard 3	100	29	71	0	0
	Standard 4	100	75	25	0	0
	Standard 5	100	50	50	0	0
St. Patrick	Total	100	46	54	0	0
	Standard 1	100	20	80	0	0
	Standard 2	100	25	75	0	0
	Standard 3	100	40	60	0	0
	Standard 4	100	100	0	0	0
	Standard 5	100	40	60	0	0
Tobago	Total	100	27	67	0	7
	Standard 1	100	25	50	0	25
	Standard 2	100	0	100	0	0
	Standard 3	100	50	50	0	0
	Standard 4	100	33	67	0	0
	Standard 5	100	33	67	0	0

Chart 15: Adequacy of Mathematics Textbook by Standard

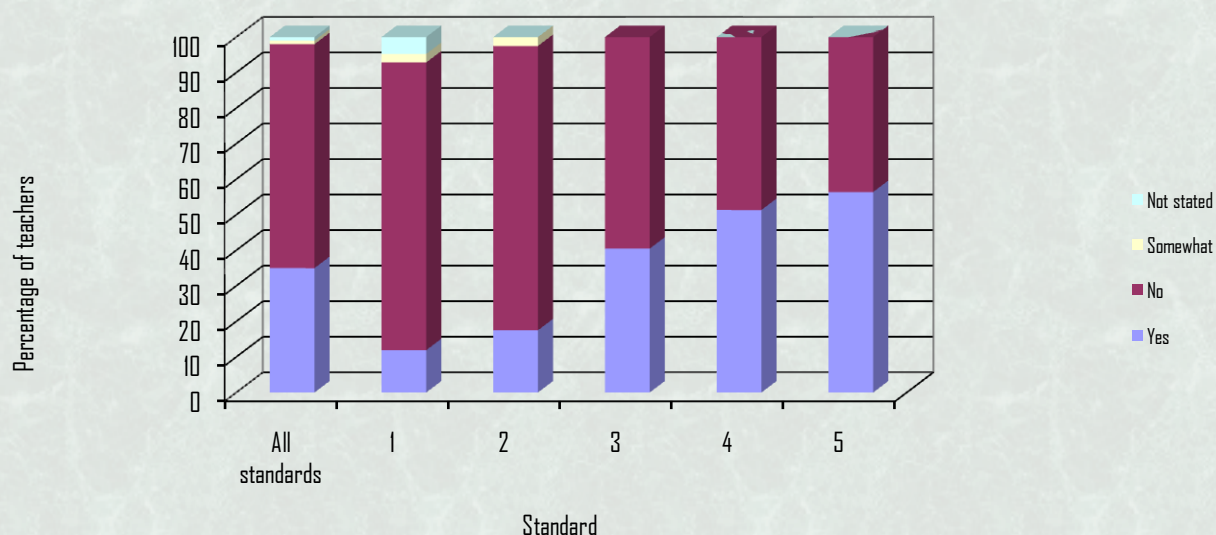
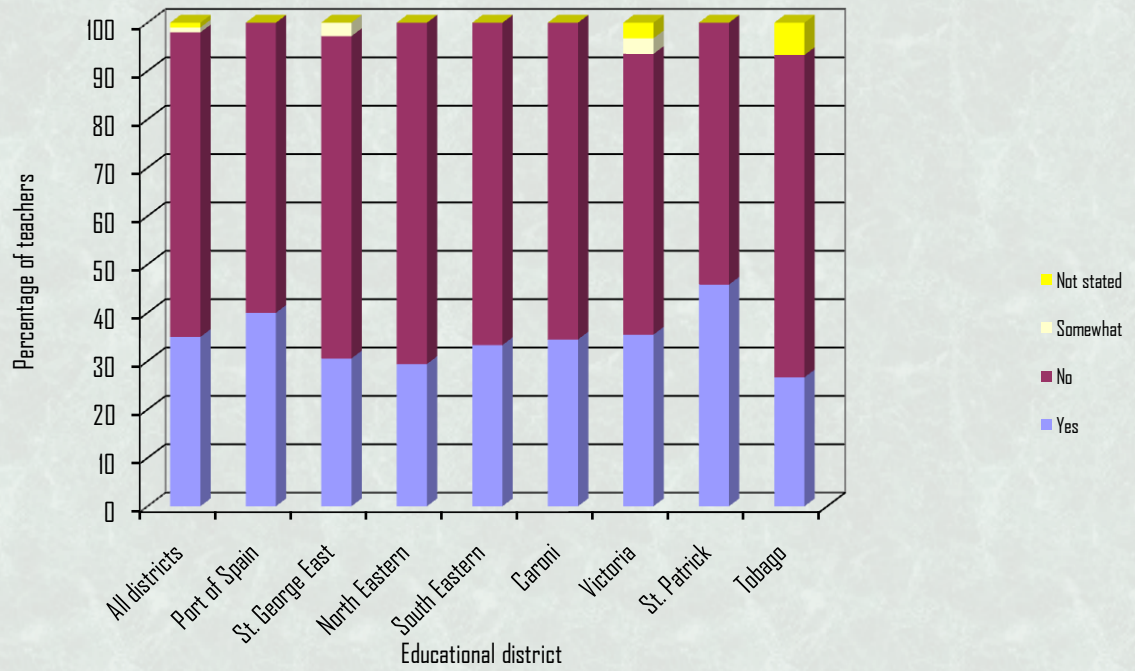


Chart 16: Adequacy of Mathematics Textbook by Educational District



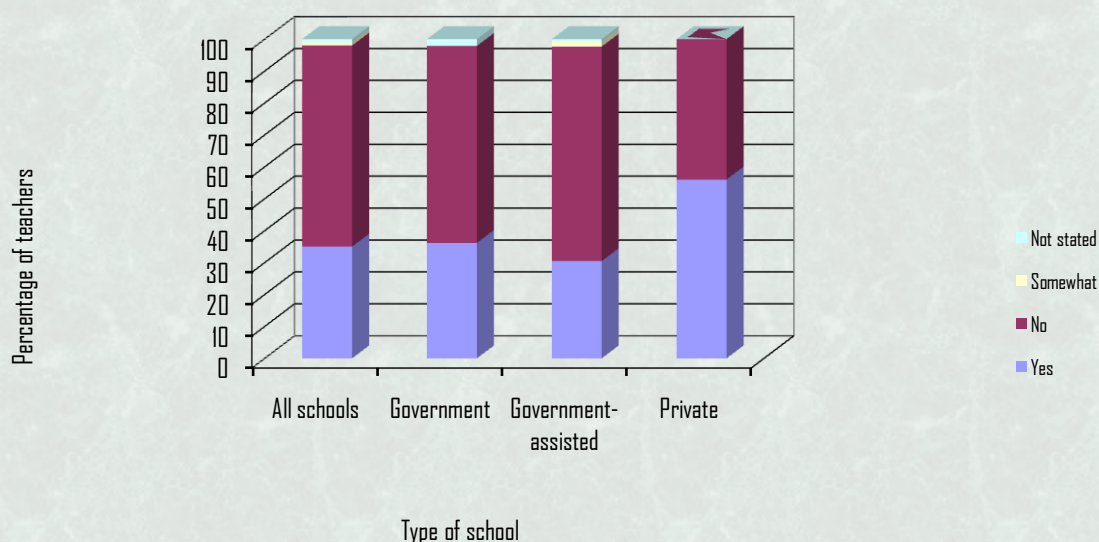
Source: Table II

	Yes	No	Somewhat	Not stated
All districts	35	63	1	1
Port of Spain	40	60	0	0
St. George East	31	67	3	0
North Eastern	29	71	0	0
South Eastern	33	67	0	0
Caroni	34	66	0	0
Victoria	35	58	3	3
St. Patrick	46	54	0	0
Tobago	27	67	0	7

Table 12. Adequacy of Mathematics Textbook by Type of School and Standard

Type of school	Standard	Total	Adequacy - percentage			
			Yes	No	Somewhat	Not stated
		(1)	(2)	(3)	(4)	(5)
All schools	All standards	100	35	63	1	1
	Standard 1	100	12	81	2	5
	Standard 2	100	18	80	3	0
	Standard 3	100	40	60	0	0
	Standard 4	100	51	49	0	0
	Standard 5	100	56	44	0	0
Government	Total	100	36	62	0	2
	Standard 1	100	22	67	0	11
	Standard 2	100	13	88	0	0
	Standard 3	100	30	70	0	0
	Standard 4	100	40	60	0	0
	Standard 5	100	70	30	0	0
Government-assisted	Total	100	30	67	2	1
	Standard 1	100	4	89	4	4
	Standard 2	100	15	81	4	0
	Standard 3	100	44	56	0	0
	Standard 4	100	55	45	0	0
	Standard 5	100	42	58	0	0
Private	Total	100	56	44	0	0
	Standard 1	100	40	60	0	0
	Standard 2	100	40	60	0	0
	Standard 3	100	40	60	0	0
	Standard 4	100	60	40	0	0
	Standard 5	100	100	0	0	0

Chart 17: Adequacy of Mathematics Textbook by Type of School



	Yes	No	Somewhat	Not stated
All schools	35	63	1	1
Government	36	62	0	2
Government-a	30	67	2	1
Private	56	44	0	0

Table 13. How Mathematics Textbook Used by Educational District and Standard

Educational district	All standards	Total	How textbook used - percentage of teachers	
			As the primary basis	As a supplementary resource
		(1)	(2)	(3)
All districts	All standards	100	14	87
	Standard 1	100	12	88
	Standard 2	100	5	95
	Standard 3	100	17	83
	Standard 4	100	14	86
	Standard 5	100	21	79
Port of Spain	Total	100	13	87
	Standard 1	100	33	67
	Standard 2	100	0	100
	Standard 3	100	13	88
	Standard 4	100	0	100
	Standard 5	100	17	83
St. George East	Total	100	25	75
	Standard 1	100	13	88
	Standard 2	100	11	89
	Standard 3	100	14	86
	Standard 4	100	50	50
	Standard 5	100	50	50
North Eastern	Total	100	24	76
	Standard 1	100	33	67
	Standard 2	100	0	100
	Standard 3	100	50	50
	Standard 4	100	0	100
	Standard 5	100	33	67
South Eastern	Total	100	17	83
	Standard 1	100	0	100
	Standard 2	100	33	67
	Standard 3	100	33	67
	Standard 4	100	0	100
	Standard 5	100	25	75
Caroni	Total	100	7	93
	Standard 1	100	0	100
	Standard 2	100	0	100
	Standard 3	100	17	83
	Standard 4	100	0	100
	Standard 5	100	17	83

Table 13. How Mathematics Textbook Used by Educational District and Standard (continued)

Educational district	All standards	Total	How textbook used - percentage of teachers	
			As the primary basis	As a supplementary resource
		(1)	(2)	(3)
Victoria	Total	100	3	97
	Standard 1	100	0	100
	Standard 2	100	0	100
	Standard 3	100	0	100
	Standard 4	100	25	75
	Standard 5	100	0	100
St. Patrick	Total	100	8	92
	Standard 1	100	20	80
	Standard 2	100	0	100
	Standard 3	100	20	80
	Standard 4	100	0	100
	Standard 5	100	0	100
Tobago	Total	100	13	87
	Standard 1	100	0	100
	Standard 2	100	0	100
	Standard 3	100	0	100
	Standard 4	100	33	67
	Standard 5	100	33	67

The majority of teachers (87%) used mathematics textbooks as a supplementary resource (Table 13). By educational districts, one-quarter of the teachers in St. George East (25%) and North Eastern (24%), and similarly in the private primary schools (24%) (Table 14), used texts as the primary basis for teaching mathematics.

Chart 18: How Mathematics Textbook Used by Standard - All Districts

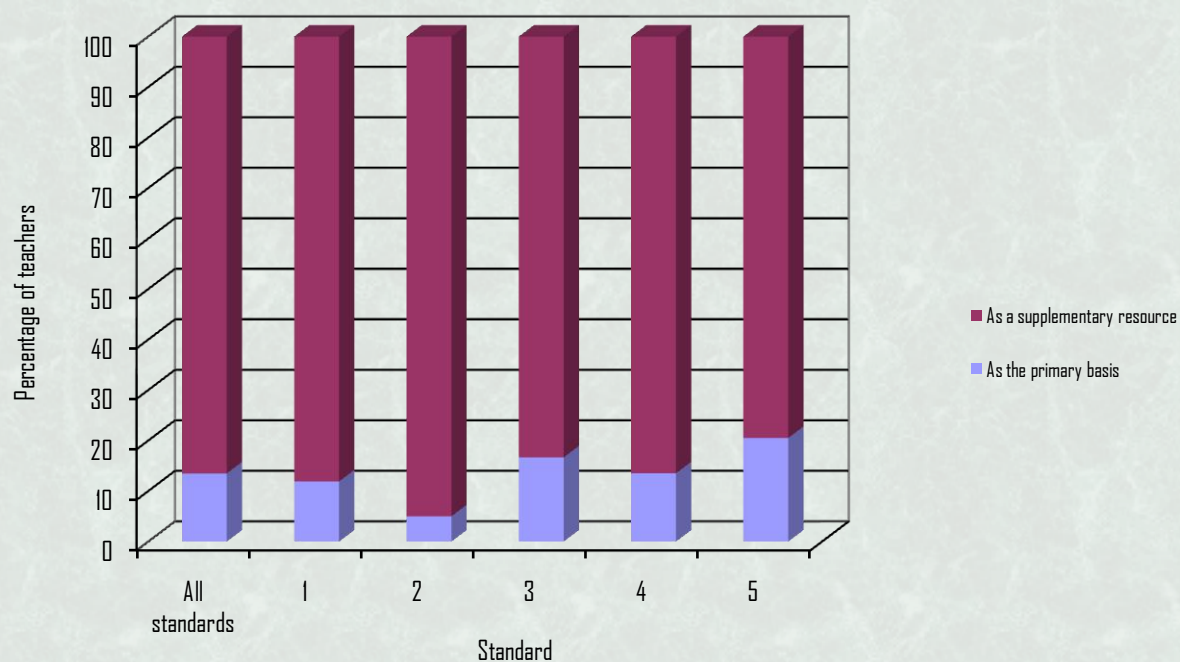
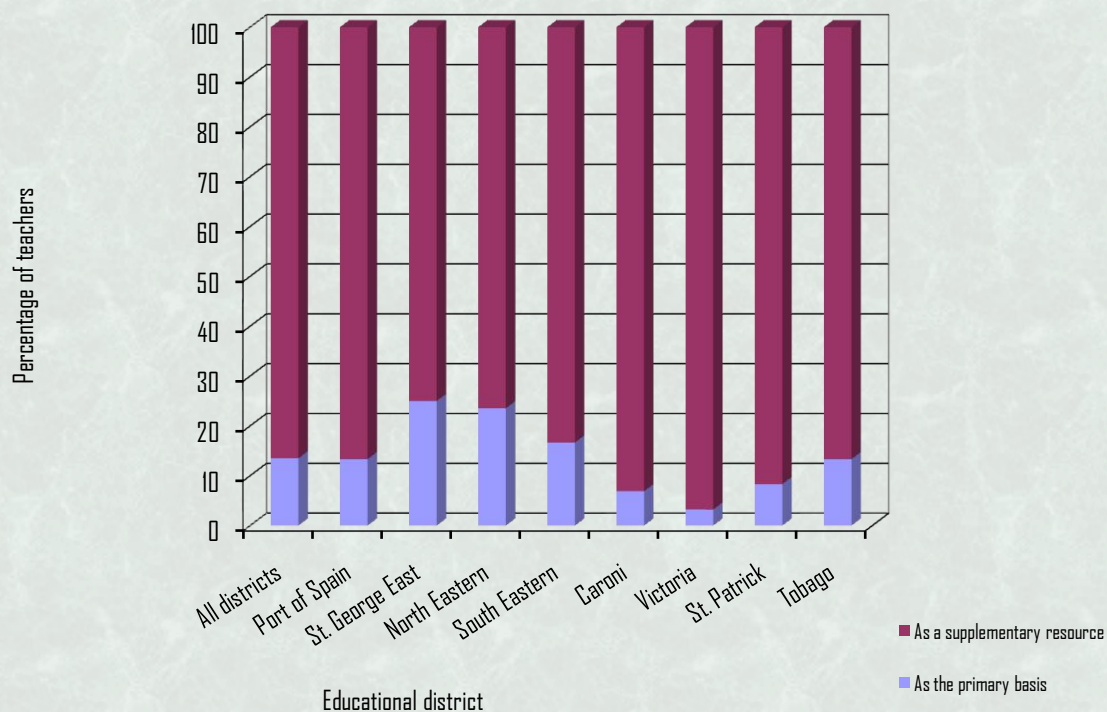


Chart 19: How Mathematics Textbook Used by Educational District



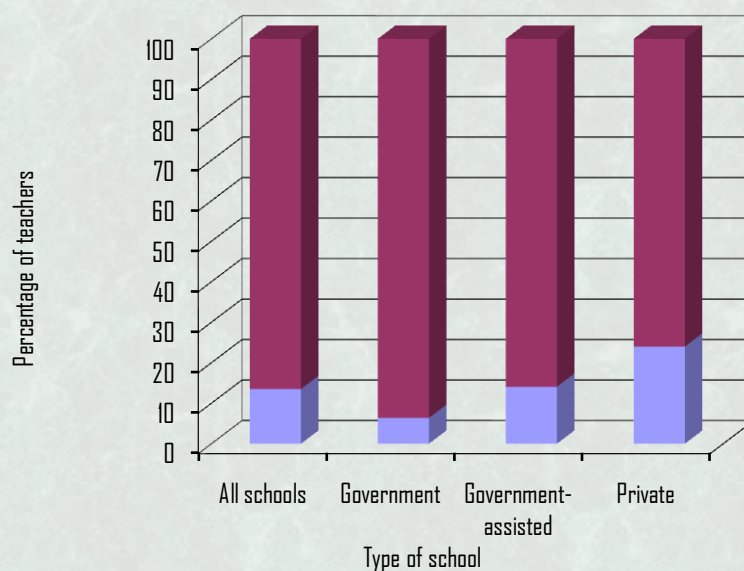
Source: Table 13

	As the primary basis	As a supplementary resource
All districts	14	87
Port of Spain	13	87
St. George East	25	75
North Eastern	24	76
South Eastern	17	83
Caroni	7	93
Victoria	3	97
St. Patrick	8	92
Tobago	13	87

Table 14. How Mathematics Textbook Used by Type of School and Standard

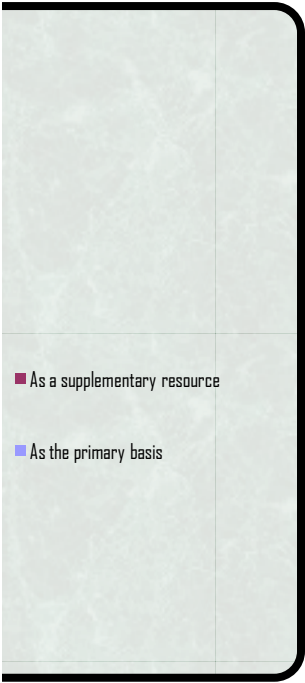
Type of school	All standards	Total	How textbook used - p
			As the primary basis
All schools	All standards	(1)	(2)
	All standards	100	14
	Standard 1	100	12
	Standard 2	100	5
	Standard 3	100	17
	Standard 4	100	14
Government	Standard 5	100	21
	Total	100	6
	Standard 1	100	0
	Standard 2	100	0
	Standard 3	100	20
	Standard 4	100	10
Government-assisted	Standard 5	100	0
	Total	100	14
	Standard 1	100	7
	Standard 2	100	4
	Standard 3	100	19
	Standard 4	100	14
Private	Standard 5	100	29
	Total	100	24
	Standard 1	100	60
	Standard 2	100	20
	Standard 3	100	0
	Standard 4	100	20
	Standard 5	100	20

Chart 20: How Mathematics Textbook Used by Type of School





percentage of teachers	
As a supplementary resource	
(3)	
87	
88	
95	
83	
86	
79	
94	
100	
100	
80	
90	
100	
86	
93	
96	
81	
86	
71	
76	
40	
80	
100	
80	
80	



	As the primary basis	As a supplementary resource
All schools	14	87
Government	6	94
Government-assisted	14	86
Private	24	76

Table 15. Suggestions for the Improvement of Mathematics Texts by Educational District

Educational district	Improvement of mathematics texts - percentage of teachers			
	Better quality illustrations/print	More activities/assessment exercises	Graded approach in terms of age-group/ability	In agreement with syllabus
	(1)	(2)	(3)	(4)
All districts	24	70	36	41
Port of Spain	30	80	27	27
St. George East	19	81	28	44
North Eastern	24	82	24	18
South Eastern	39	72	28	61
Caroni	10	59	52	48
Victoria	23	58	45	48
St. Patrick	17	71	46	29
Tobago	40	53	33	47

On the improvement of mathematics texts, a significant proportion (70%) of teachers stated that the prescribed texts should contain more activities/assessment exercises. Two-fifths (41%) of the teachers suggested that texts should be in agreement with the syllabus while over one-third (36%) indicated that they should be graded in terms of age-group/ability.

Chart 21: Suggestions for the Improvement of Mathematics Texts - All Districts

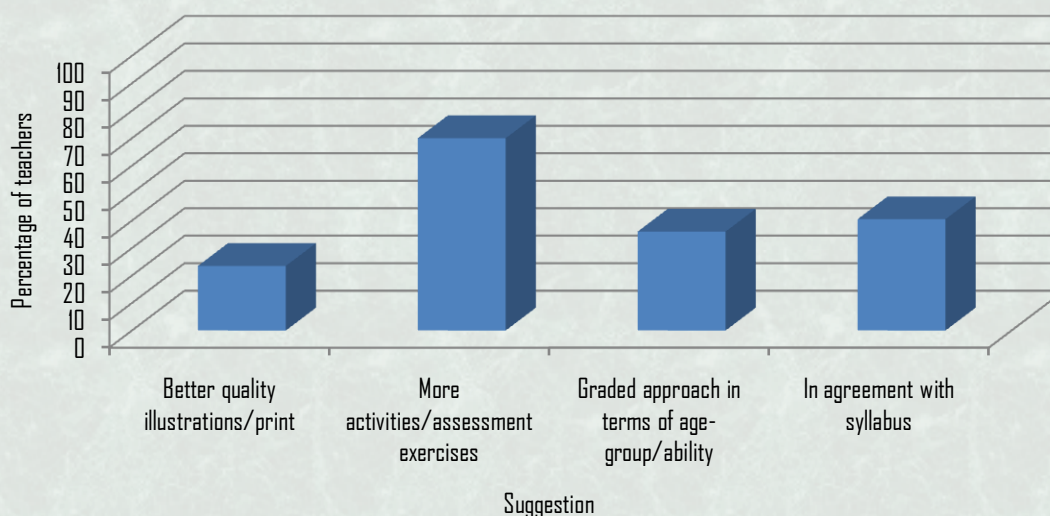


Table 16. Time Spent per Week on Teaching Activities Outside the Formal School Day by Educational District

Educational district	Activity	Total	Time spent - percentage of teachers				
			None	<1 hour	1-2 hours	2-4 hours	>4 hours
		(1)	(2)	(3)	(4)	(5)	(6)
All districts	1 Preparing or grading students tests or exams	100	4	16	50	19	7
	2 Meeting with students outside of classroom time	100	17	42	23	11	5
	3 Planning lessons by yourself	100	1	19	45	23	11
	4 Professional reading and development activity	100	4	27	34	18	14
	5 Administrative tasks including staff meetings	100	14	40	30	6	4
	6 Meeting with parents	100	15	54	22	5	1
Port of Spain	1 Preparing or grading students tests or exams	100	3	18	42	27	6
	2 Meeting with students outside of classroom time	100	12	45	21	3	9
	3 Planning lessons by yourself	100	3	27	42	9	18
	4 Professional reading and development activity	100	3	30	30	18	12
	5 Administrative tasks including staff meetings	100	15	30	24	9	9
	6 Meeting with parents	100	21	58	18	0	0
St. George East	1 Preparing or grading students tests or exams	100	0	13	69	18	0
	2 Meeting with students outside of classroom time	100	15	51	23	8	3
	3 Planning lessons by yourself	100	0	18	49	26	8
	4 Professional reading and development activity	100	0	36	23	21	21
	5 Administrative tasks including staff meetings	100	5	41	36	8	5
	6 Meeting with parents	100	8	59	15	10	3
North Eastern	1 Preparing or grading students tests or exams	100	6	28	44	17	6
	2 Meeting with students outside of classroom time	100	22	33	22	22	0
	3 Planning lessons by yourself	100	6	17	50	17	11
	4 Professional reading and development activity	100	6	28	39	22	6
	5 Administrative tasks including staff meetings	100	17	56	22	6	0
	6 Meeting with parents	100	33	28	33	6	0
South Eastern	1 Preparing or grading students tests or exams	100	5	15	55	20	0
	2 Meeting with students outside of classroom time	100	15	35	30	10	10
	3 Planning lessons by yourself	100	0	20	30	35	10
	4 Professional reading and development activity	100	5	20	30	30	10
	5 Administrative tasks including staff meetings	100	10	55	25	5	0
	6 Meeting with parents	100	20	45	30	0	0
Caroni	1 Preparing or grading students tests or exams	100	3	17	45	24	10
	2 Meeting with students outside of classroom time	100	24	38	28	10	0
	3 Planning lessons by yourself	100	3	14	55	21	7
	4 Professional reading and development activity	100	7	17	38	17	21
	5 Administrative tasks including staff meetings	100	24	34	31	7	3
	6 Meeting with parents	100	7	62	28	3	0



Not stated

(7)

3

3

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7

4

3

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Table 16. Time Spent per Week on Teaching Activities Outside the Formal School Day by Educational District (continued)

Educational district	Activity	Total	Time spent - percentage of teachers					
			None	<1 hour	1-2 hours	2-4 hours	>4 hours	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Victoria	1 Preparing or grading students tests or exams	100	6	25	41	6	13	9
	2 Meeting with students outside of classroom time	100	19	38	19	16	6	3
	3 Planning lessons by yourself	100	0	22	47	19	13	0
	4 Professional reading and development activity	100	3	28	47	9	9	3
	5 Administrative tasks including staff meetings	100	19	41	31	3	0	6
	6 Meeting with parents	100	13	53	16	9	3	6
St. Patrick	1 Preparing or grading students tests or exams	100	12	12	54	8	12	4
	2 Meeting with students outside of classroom time	100	19	50	12	8	12	0
	3 Planning lessons by yourself	100	0	19	54	23	4	0
	4 Professional reading and development activity	100	8	31	38	15	4	4
	5 Administrative tasks including staff meetings	100	19	42	27	0	4	8
	6 Meeting with parents	100	15	65	12	4	0	4
Tobago	1 Preparing or grading students tests or exams	100	0	0	44	44	6	6
	2 Meeting with students outside of classroom time	100	6	31	31	19	0	13
	3 Planning lessons by yourself	100	0	6	19	44	25	6
	4 Professional reading and development activity	100	6	13	31	13	25	13
	5 Administrative tasks including staff meetings	100	0	31	38	6	6	19
	6 Meeting with parents	100	6	44	38	0	0	13

The table shows that, of the above activities, the majority of teachers devoted one to two hours weekly in each case to preparing or grading students' tests or examinations (50%), planning lessons (45%) and professional reading and development (34%). Of the sample of teachers surveyed, over a half spent no time or less than one hour on meetings with students outside of classroom time (57%); and on administrative tasks including staff meetings (54%) the least time was spent meeting with parents.

**Chart 22: Time Spent per Week on Teaching Activities Outside the Formal School Day
All Districts**

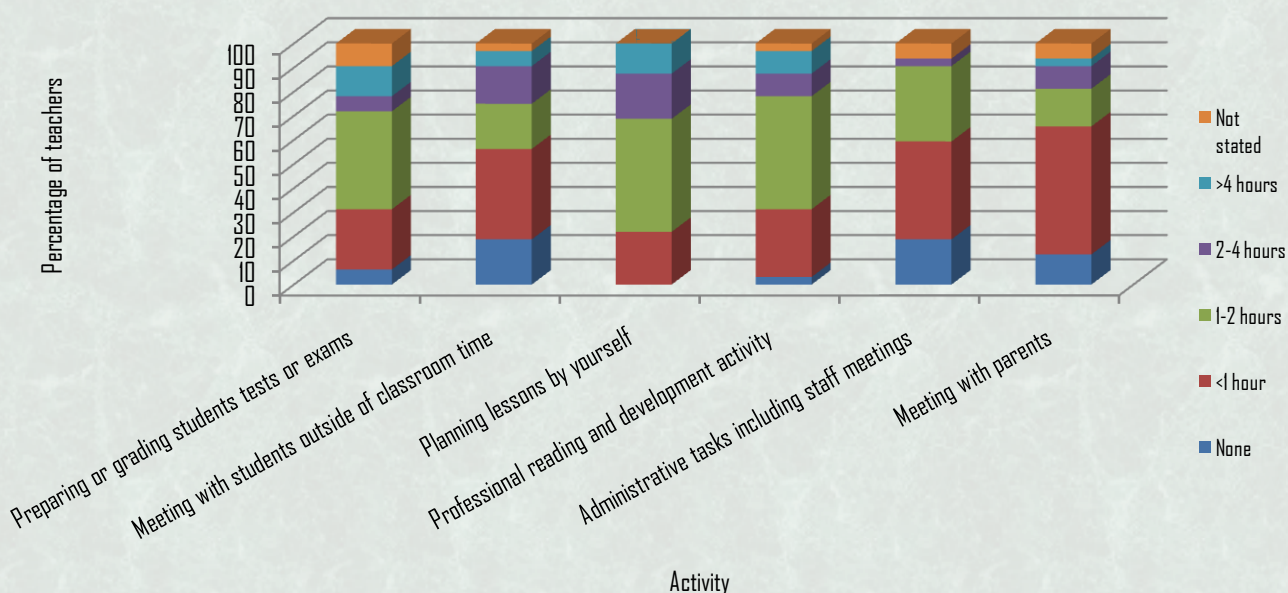


Table 17. Time Spent per Week on Teaching Activities Outside the Formal School Day by Type of School

Type of school	Activity	Total	Time spent - percentage of teachers					
			None	<1 hour	1-2 hours	2-4 hours	>4 hours	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
All schools	1 Preparing or grading students tests or exams	100	4	16	50	19	7	3
	2 Meeting with students outside of classroom time	100	17	42	23	11	5	3
	3 Planning lessons by yourself	100	1	19	45	23	11	1
	4 Professional reading and development activity	100	4	27	34	18	14	3
	5 Administrative tasks including staff meetings	100	14	40	30	6	4	7
	6 Meeting with parents	100	15	54	22	5	1	4
Government	1 Preparing or grading students tests or exams	100	12	8	56	19	2	4
	2 Meeting with students outside of classroom time	100	13	40	27	12	4	4
	3 Planning lessons by yourself	100	4	19	44	19	12	2
	4 Professional reading and development activity	100	10	21	29	17	17	6
	5 Administrative tasks including staff meetings	100	17	40	27	2	4	10
	6 Meeting with parents	100	12	60	21	4	2	2
Government-assisted	1 Preparing or grading students tests or exams	100	1	19	49	21	7	2
	2 Meeting with students outside of classroom time	100	19	44	19	11	4	3
	3 Planning lessons by yourself	100	1	19	46	22	11	1
	4 Professional reading and development activity	100	3	28	38	16	12	3
	5 Administrative tasks including staff meetings	100	16	43	28	6	2	5
	6 Meeting with parents	100	16	53	21	4	1	4
Private	1 Preparing or grading students tests or exams	100	4	19	48	11	11	7
	2 Meeting with students outside of classroom time	100	15	33	30	7	15	0
	3 Planning lessons by yourself	100	0	15	41	33	11	0
	4 Professional reading and development activity	100	0	33	26	26	15	0
	5 Administrative tasks including staff meetings	100	0	26	44	11	11	7
	6 Meeting with parents	100	11	48	26	7	0	7

Table 18. Meetings with Parents About Student's Achievement in Mathematics by Educational District and Type of School

Educational district	Type of school	Total	Frequency of meetings - percentage of teachers					
			Once a week	Once a month	Once a term	Once a year	Never	Not stated
All districts	Total	100	15	32	46	1	2	4
	Government	100	13	33	50	0	2	2
	Government-assisted	100	16	29	47	1	2	4
	Private	100	19	48	30	0	0	4
Port of Spain	Total	100	15	30	45	3	0	6
	Government	100	11	22	56	0	0	11
	Government-assisted	100	12	29	47	6	0	6
	Private	100	29	43	29	0	0	0
St. George East	Total	100	21	38	33	0	3	5
	Government	100	30	40	30	0	0	0
	Government-assisted	100	18	41	32	0	5	5
	Private	100	14	29	43	0	0	14
North Eastern	Total	100	11	50	39	0	0	0
	Government	100	0	75	25	0	0	0
	Government-assisted	100	8	46	46	0	0	0
	Private	100	100	0	0	0	0	0
South Eastern	Total	100	5	25	65	0	0	5
	Government	100	0	0	100	0	0	0
	Government-assisted	100	7	20	67	0	0	7
	Private	100	0	100	0	0	0	0
Caroni	Total	100	28	21	45	3	3	0
	Government	100	25	25	38	0	13	0
	Government-assisted	100	30	15	50	5	0	0
	Private	100	0	100	0	0	0	0
Victoria	Total	100	19	22	56	0	0	3
	Government	100	0	33	67	0	0	0
	Government-assisted	100	22	17	57	0	0	4
	Private	100	33	33	33	0	0	0
St. Patrick	Total	100	8	50	31	0	8	4
	Government	100	14	43	43	0	0	0
	Government-assisted	100	6	44	31	0	13	6
	Private	100	0	100	0	0	0	0
Tobago	Total	100	6	25	63	0	0	6
	Government	100	0	20	80	0	0	0
	Government-assisted	100	13	25	50	0	0	13
	Private	100	0	33	67	0	0	0

The modal frequency with which teachers (46%) informed parents about student's achievement in mathematics was once a term. Similar information was conveyed by one-third (32%) of the teachers monthly. By educational district, the data reveal that a half (50%) of the teachers in North Eastern and St. Patrick held monthly discussions with parents. A further review of the data by type of school shows that teachers in the private primary schools met more frequently with parents than their counterparts in the government and government-assisted schools.

Chart 23: Meeting with Parents about Student's Achievement in Mathematics by Educational District

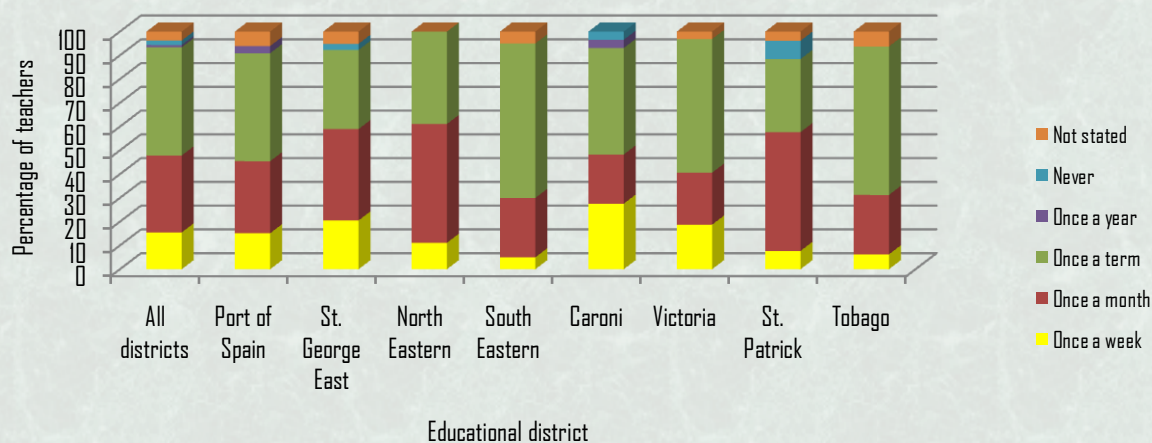
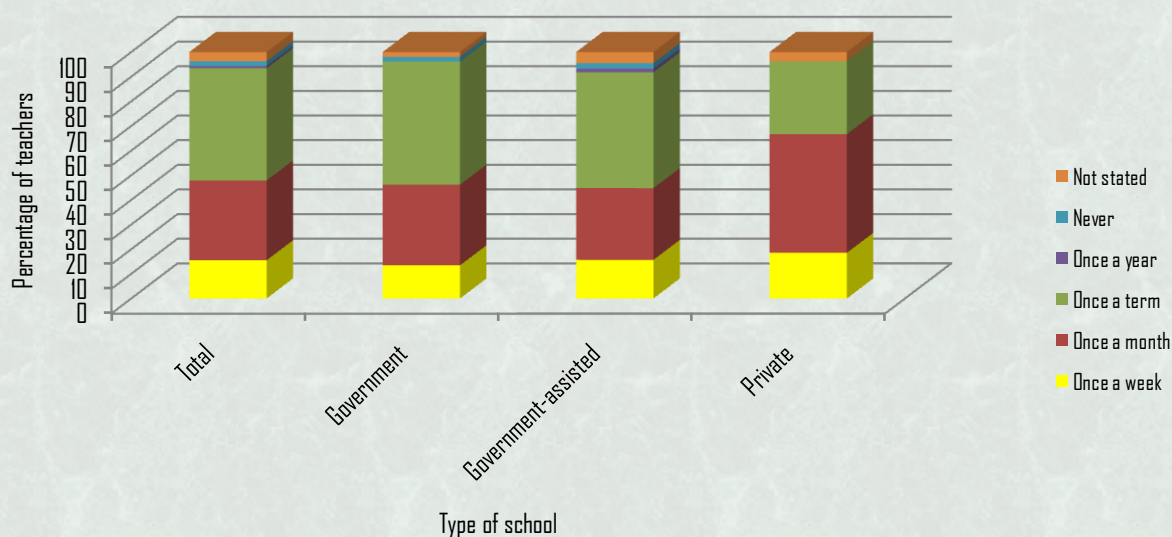


Chart 24: Meeting with Parents about Student's Achievement in Mathematics by Type of School



Source: Table 18

	Once a week	Once a month	Once a term	Once a year	Never
All districts	15	32	46	1	2
Port of Spain	15	30	45	3	0
St. George Ea	21	38	33	0	3
North Eastern	11	50	39	0	0
South Eastern	5	25	65	0	0
Caroni	28	21	45	3	3
Victoria	19	22	56	0	0
St. Patrick	8	50	31	0	8
Tobago	6	25	63	0	0

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Table 19. Meetings with other Teachers by Educational District and Type of School

Educational district	Type of school	Total	Frequency of meetings - percentag of teachers					
			Once a week	Once a month	Once a term	Once a year	Never	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
All districts	All schools	100	24	22	30	5	16	3
	Government	100	15	23	46	2	8	6
	Government-assisted	100	25	21	24	4	22	3
	Private	100	33	26	26	11	4	0
Port of Spain	All schools	100	24	15	30	6	21	3
	Government	100	11	0	78	0	11	0
	Government-assisted	100	24	24	12	6	29	6
	Private	100	43	14	14	14	14	0
St. George East	All schools	100	38	18	33	5	5	0
	Government	100	30	30	40	0	0	0
	Government-assisted	100	45	9	32	5	9	0
	Private	100	29	29	29	14	0	0
North Eastern	All schools	100	6	39	17	0	39	0
	Government	100	0	50	25	0	25	0
	Government-assisted	100	0	38	15	0	46	0
	Private	100	100	0	0	0	0	0
South Eastern	All schools	100	20	30	20	5	15	10
	Government	100	33	0	33	0	33	0
	Government-assisted	100	20	27	20	7	13	13
	Private	100	0	100	0	0	0	0
Caroni	All schools	100	17	17	38	3	21	3
	Government	100	13	13	50	0	13	13
	Government-assisted	100	20	15	35	5	25	0
	Private	100	0	100	0	0	0	0
Victoria	All schools	100	25	16	31	9	19	0
	Government	100	17	0	83	0	0	0
	Government-assisted	100	26	22	17	9	26	0
	Private	100	33	0	33	33	0	0
St. Patrick	All schools	100	15	35	35	0	12	4
	Government	100	14	57	14	0	0	14
	Government-assisted	100	19	25	38	0	19	0
	Private	100	0	33	67	0	0	0
Tobago	All schools	100	38	19	19	6	6	13
	Government	100	0	40	20	20	0	20
	Government-assisted	100	50	13	13	0	13	13
	Private	100	67	0	33	0	0	0

Approximately one-third (30%) of the sample of primary school mathematics teachers indicated that meetings were held once a term with other teachers to discuss and plan curriculum or teaching approaches. Such meetings were also convened on a weekly (24%) and monthly (22%) basis. A further review of the data by educational district indicates that teachers in St. George East (38%) and Tobago (38%) held discussions more frequently than their counterparts in the other educational districts.

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Chart 25: Meetings with other Teachers by Educational District

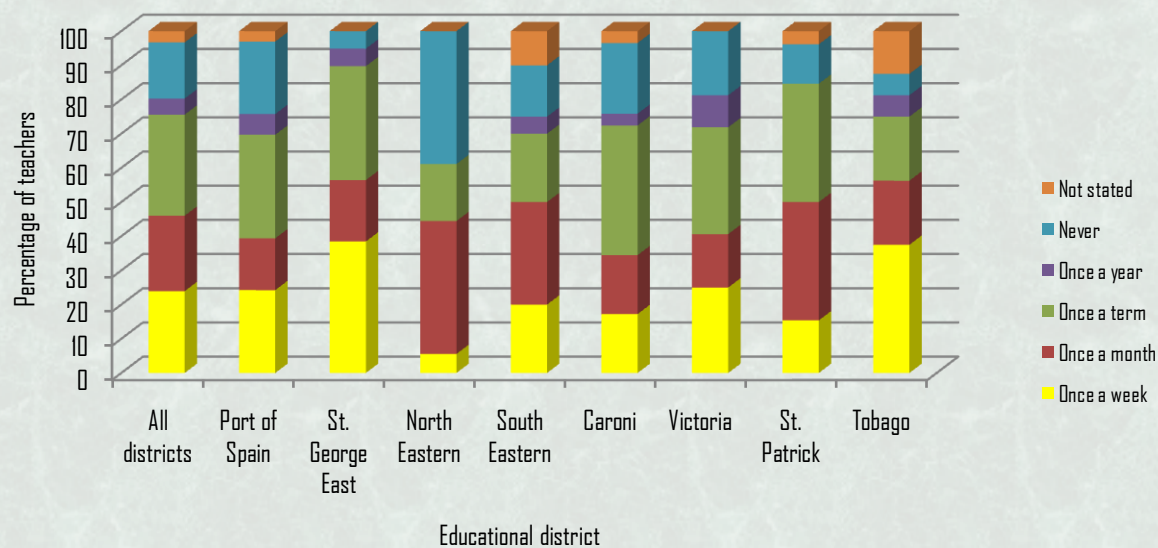
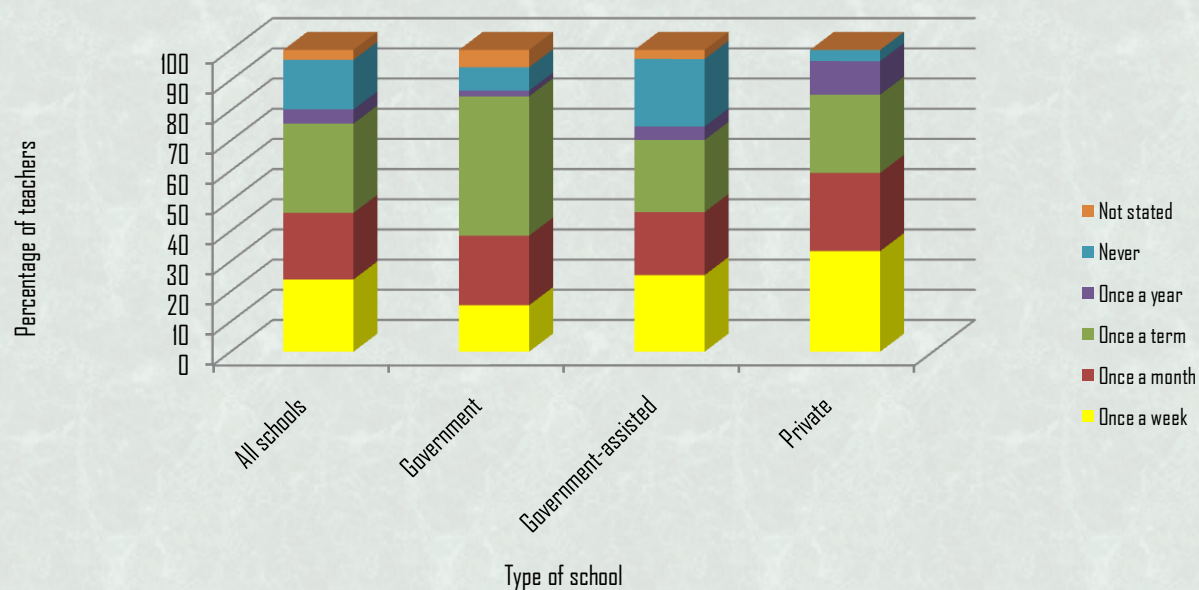


Chart 26: Meetings with other Teachers by Type of School



Source: Table 19

Educational district	Once a week	Once a	Once a term
All districts	24	22	30
Port of Spain	24	15	30
St. George East	38	18	33
North Eastern	6	39	17
South Eastern	20	30	20
Caroni	17	17	38
Victoria	25	16	31
St. Patrick	15	35	35
Tobago	38	19	19

Once a year	Never	Not stated
5	16	3
6	21	3
5	5	0
0	39	0
5	15	10
3	21	3
9	19	0
0	12	4
6	6	13

Table 20. Influence on Aspects of Teaching by Type of School

Type of school	Aspect	Total	Influence - percentage of teachers			
			A lot	Some	None	Not stated
		(1)	(2)	(3)	(4)	(5)
All schools	Subject matter to be taught	100	46	36	16	1
	Specific textbooks to be used	100	18	56	23	2
	Materials and supplies	100	29	59	12	0
Government	Subject matter to be taught	100	46	33	21	0
	Specific textbooks to be used	100	13	52	33	2
	Materials and supplies	100	27	62	12	0
Government-assisted	Subject matter to be taught	100	43	38	17	1
	Specific textbooks to be used	100	16	60	22	1
	Materials and supplies	100	28	59	12	1
Private	Subject matter to be taught	100	63	30	4	4
	Specific textbooks to be used	100	37	48	11	4
	Materials and supplies	100	37	52	11	0

The data reveal that while 46% of the mathematics teachers had a lot of influence on the subject matter to be taught, the response from the majority of teachers shows that they exerted considerably less influence on the acquisition of materials and supplies (29%) and specific textbooks (18%). Teachers in the private primary schools were more influential in each of the identified areas of teaching compared to those in public schools.

Chart 27: Teachers' Influence on Aspects of Teaching - All Schools

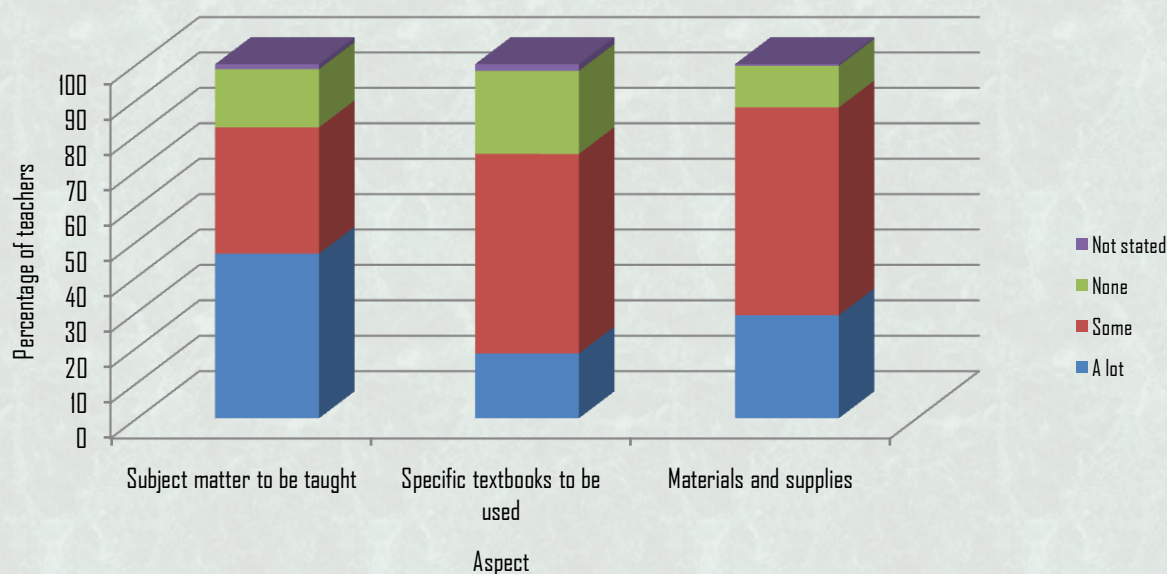


Table 21. SEA Mathematics Prepared Students for Secondary School by Educational District and Type of School

Educational district	Type of school	Total	SEA mathematics prepared students for secondary school - percentage of		
			Yes	No	Not stated
		(1)	(2)	(3)	(4)
All districts	All schools	100	91	7	2
	Government	100	85	10	6
	Government-assisted	100	91	7	1
	Private	100	100	0	0
Port of Spain	Total	100	76	12	12
	Government	100	33	33	33
	Government-assisted	100	88	6	6
	Private	100	100	0	0
St. George East	Total	100	97	3	0
	Government	100	100	0	0
	Government-assisted	100	95	5	0
	Private	100	100	0	0
North Eastern	Total	100	89	11	0
	Government	100	100	0	0
	Government-assisted	100	85	15	0
	Private	100	100	0	0
South Eastern	Total	100	95	5	0
	Government	100	100	0	0
	Government-assisted	100	93	7	0
	Private	100	100	0	0
Caroni	Total	100	97	3	0
	Government	100	100	0	0
	Government-assisted	100	95	5	0
	Private	100	100	0	0
Victoria	Total	100	91	9	0
	Government	100	83	17	0
	Government-assisted	100	91	9	0
	Private	100	100	0	0
St. Patrick	Total	100	92	8	0
	Government	100	86	14	0
	Government-assisted	100	94	6	0
	Private	100	100	0	0
Tobago	Total	100	88	6	6
	Government	100	100	0	0
	Government-assisted	100	75	13	13
	Private	100	100	0	0

Almost all the primary school teachers (91%), especially those in the private schools (100%), who participated in the survey, agreed that the Secondary Entrance Assessment (SEA) examination in mathematics prepared students in the subject for secondary school.

Chart 28: SEA Mathematics Prepared Students for Secondary School by Educational District

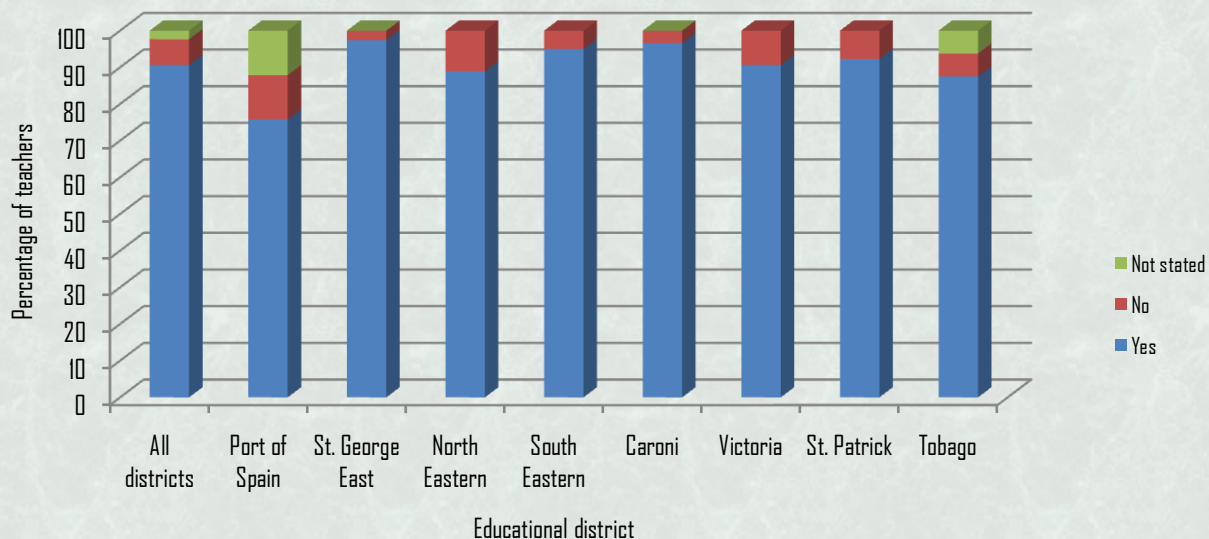
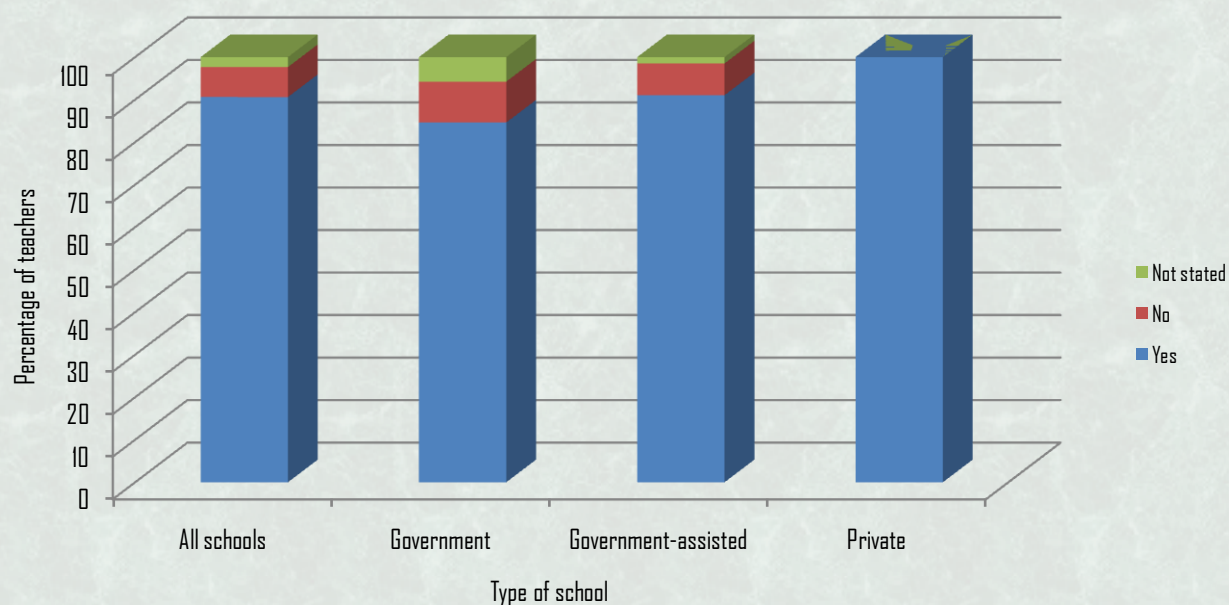


Chart 29: SEA Mathematics Prepared Students for Secondary School by Type of School



Source: Table 21

	Yes	No	Not stated
All districts	91	7	2
Port of Spain	76	12	12
St. George Ea:	97	3	0
North Eastern	89	11	0
South Eastern	95	5	0
Caroni	97	3	0
Victoria	91	9	0
St. Patrick	92	8	0
Tobago	88	6	6

Table 22. No. of Mathematics Periods/Week by Type of School and Standard

Type of school	Standard	Total	No. of mathematics periods/week - percentage of teachers							
			< 5 periods	5 periods	6 periods	7 periods	8 periods	9 periods	10 periods	> 10 periods
All schools	All standards	100	4	26	7	8	18	5	28	3
	Standard 1	100	2	28	9	7	13	7	33	0
	Standard 2	100	5	36	11	7	11	7	18	5
	Standard 3	100	7	39	5	9	16	0	20	5
	Standard 4	100	5	13	8	8	26	3	34	3
	Standard 5	100	0	10	2	12	24	7	34	5
	Standard 6	100	0	0	0	0	0	0	0	0
Government	Total	100	2	19	8	10	21	10	25	4
	Standard 1	100	0	36	18	0	0	9	36	0
	Standard 2	100	0	22	22	0	11	11	22	11
	Standard 3	100	10	30	0	10	30	0	10	10
	Standard 4	100	0	0	0	30	40	0	30	0
	Standard 5	100	0	8	0	8	25	25	25	0
Government-assisted	Total	100	4	29	6	7	19	3	29	2
	Standard 1	100	3	24	3	7	21	3	38	0
	Standard 2	100	0	40	10	10	10	7	20	3
	Standard 3	100	7	46	7	7	11	0	21	0
	Standard 4	100	9	17	4	0	26	4	35	4
	Standard 5	100	0	13	4	13	29	0	33	4
Private	Total	100	7	22	11	11	7	4	26	7
	Standard 1	100	0	33	17	17	0	17	0	0
	Standard 2	100	40	40	0	0	20	0	0	0
	Standard 3	100	0	17	0	17	17	0	33	17
	Standard 4	100	0	20	40	0	0	0	40	0
	Standard 5	100	0	0	0	20	0	0	60	20

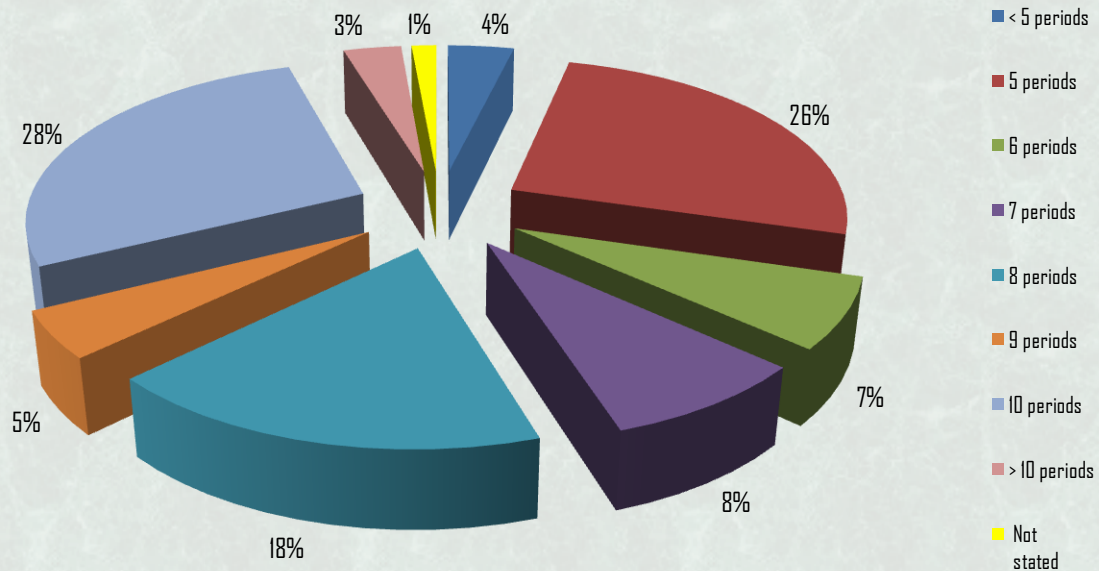
Table 22 shows that the modal number of mathematics periods was 10 (28%) each week, followed by five periods (26%) weekly. The survey results show that standards 4 and 5 teachers taught mathematics more often than their counterparts in the lower standards on a weekly basis. A review of data by type of school indicates that in standard 5, one-quarter (25%) of the government school teachers and one-third (33%) of those government-assisted schools taught mathematics for 10 periods each week compared to three-fifths (60%) in the case of private schools.



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Chart 30: Percentage of Mathematics Periods each Week - All Standards



Source: Table 22

Table 23. Most Difficult Subject Area for Students to Conceptualise by Standard

Standard	Total	Subject area - percentage of teachers								
		Geometry	Number	Fractions	Decimals	Money	Percent	Measurement	Statistics	Not stated
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All standards	100	18	8	22	22	7	6	10	4	3
Standard 1	100	13	18	28	...	18	...	13	5	5
Standard 2	100	22	12	27	...	12	...	10	12	5
Standard 3	100	19	2	21	47	0	...	12	0	0
Standard 4	100	16	8	16	24	3	21	5	3	5
Standard 5	100	22	0	17	37	2	10	10	0	2

Approximately two-fifths of the sample of teachers identified fractions (22%), decimals (22%) and geometry (18%) as the most difficult areas of the mathematics syllabus for primary school students to conceptualise. A relatively large percentage of teachers of standards 3 to 5 reported difficulty with decimals amongst students. The data, however, show that the difficulty encountered with fractions in standard 1 declined as students progressed towards standard 5.

Chart 31: Most Difficult Subject Area for Students to Conceptualise by Percentage of Teachers All Standards

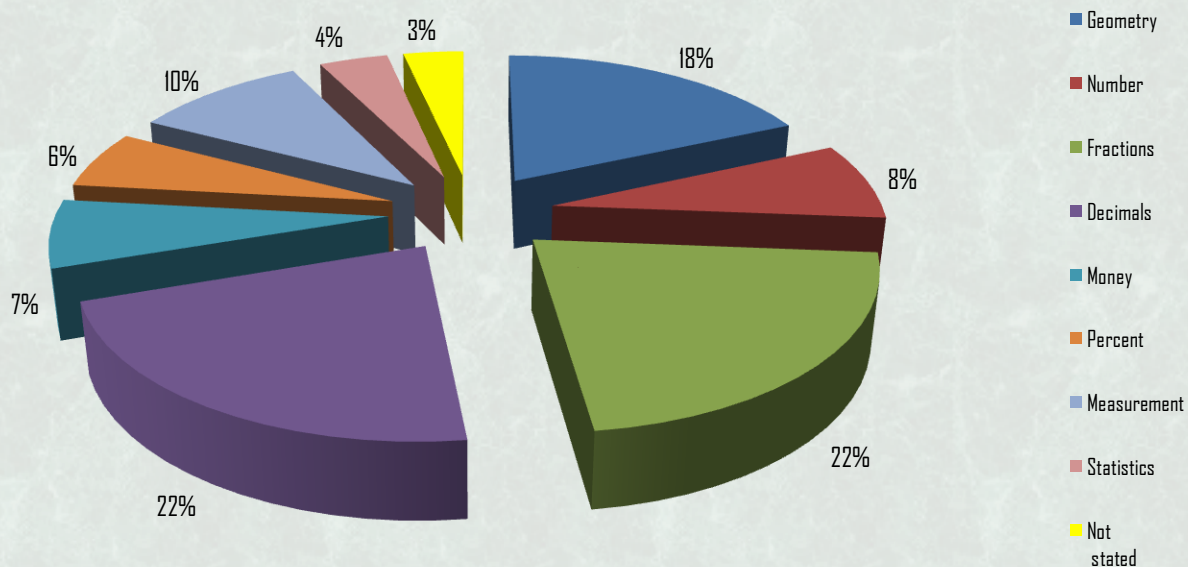


Table 24. Performance of Mathematical Activities by Educational District

Educational district	Activity	Total	Frequency of activity - percentage of teachers			
			Every lesson	Most lessons	Some lessons	Never
		(1)	(2)	(3)	(4)	(5)
All districts	1 Make tables, charts or graphs	100	1	14	83	1
	2 Practise computational skills	100	41	48	10	0
	3 Work on fractions and decimals	100	2	20	73	2
	4 Learn about shapes	100	0	14	84	0
	5 Measure things in the classroom	100	0	8	89	2
	6 Work in groups	100	9	28	61	1
Port of Spain	1 Make tables, charts or graphs	100	3	9	88	0
	2 Practise computational skills	100	42	42	12	3
	3 Work on fractions and decimals	100	6	12	79	3
	4 Learn about shapes	100	0	6	88	3
	5 Measure things in the classroom	100	0	6	85	9
	6 Work in groups	100	6	27	58	9
St. George East	1 Make tables, charts or graphs	100	5	5	85	3
	2 Practise computational skills	100	44	46	10	0
	3 Work on fractions and decimals	100	0	18	79	3
	4 Learn about shapes	100	0	10	90	0
	5 Measure things in the classroom	100	0	10	90	0
	6 Work in groups	100	13	21	67	0
North Eastern	1 Make tables, charts or graphs	100	0	11	89	0
	2 Practise computational skills	100	44	39	17	0
	3 Work on fractions and decimals	100	6	33	56	0
	4 Learn about shapes	100	0	28	72	0
	5 Measure things in the classroom	100	0	6	89	6
	6 Work in groups	100	6	33	61	0
Caroni	1 Make tables, charts or graphs	100	0	21	72	7
	2 Practise computational skills	100	0	52	41	7
	3 Work on fractions and decimals	100	0	28	72	0
	4 Learn about shapes	100	0	21	79	0
	5 Measure things in the classroom	100	0	10	90	0
	6 Work in groups	100	7	45	48	0
Victoria	1 Make tables, charts or graphs	100	0	16	84	0
	2 Practise computational skills	100	41	47	13	0
	3 Work on fractions and decimals	100	3	3	84	6
	4 Learn about shapes	100	3	9	88	0
	5 Measure things in the classroom	100	3	6	91	0
	6 Work in groups	100	9	28	63	0



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Table 24. Performance of Mathematical Activities by Educational District (continued)

Educational district	Activity	Total	Frequency of activity - percentage of teachers				
			Every lesson	Most lessons	Some lessons	Never	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)
South Eastern	1 Make tables, charts or graphs	100	0	15	80	0	5
	2 Practise computational skills	100	40	55	0	0	5
	3 Work on fractions and decimals	100	0	20	65	5	10
	4 Learn about shapes	100	0	10	85	0	5
	5 Measure things in the classroom	100	0	5	90	0	5
	6 Work in groups	100	5	20	70	0	5
St. Patrick	1 Make tables, charts or graphs	100	0	23	77	0	0
	2 Practise computational skills	100	23	69	8	0	0
	3 Work on fractions and decimals	100	0	31	65	0	4
	4 Learn about shapes	100	0	19	81	0	0
	5 Measure things in the classroom	100	0	12	88	0	0
	6 Work in groups	100	15	27	58	0	0
Tobago	1 Make tables, charts or graphs	100	0	13	88	0	0
	2 Practise computational skills	100	38	44	19	0	0
	3 Work on fractions and decimals	100	6	25	69	0	0
	4 Learn about shapes	100	0	19	81	0	0
	5 Measure things in the classroom	100	0	13	88	0	0
	6 Work in groups	100	13	19	69	0	0

In general, the most frequently performed mathematical activity was the practice of computational skills at every lesson (41%) and most lessons (48%), followed by working in groups at every and most lessons as stated by 37% of the teachers accumulatively. The frequency with which students were engaged in the various activities was comparable by educational district and type of school (Tables 24 and 25).

Chart 32: Performance of Mathematical Activities

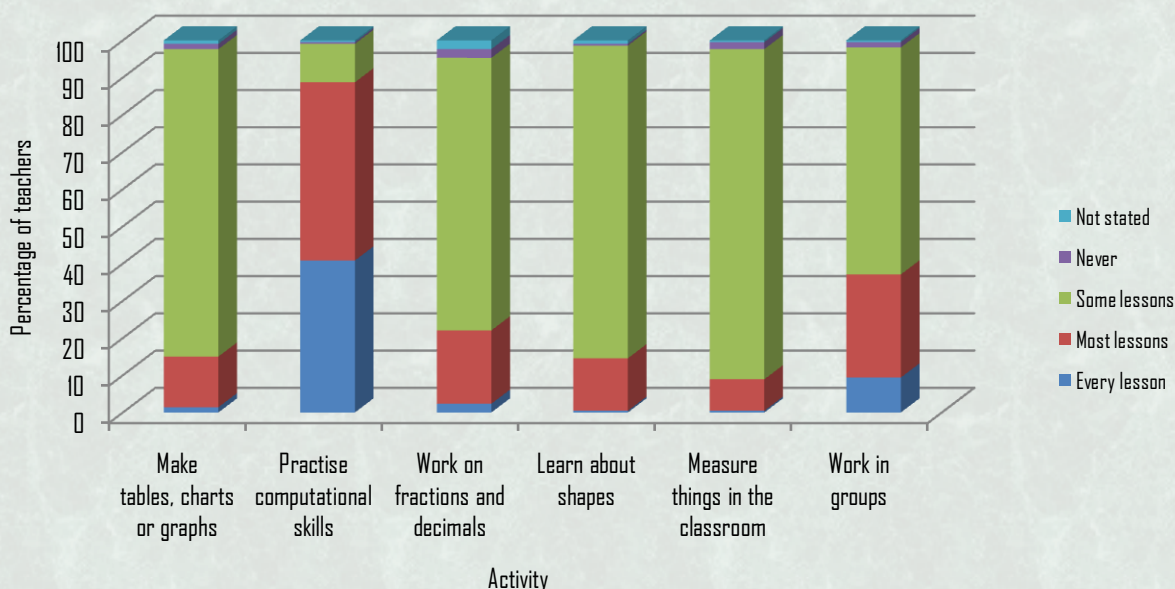


Table 25. Performance of Mathematical Activities by Type of School

Type of school	Activity	Total	Frequency of activity - percentage of teachers			
			Every lesson	Most lessons	Some lessons	Never
		(1)	(2)	(3)	(4)	(5)
All schools	1 Make tables, charts or graphs	100	1	14	83	1
	2 Practise computational skills	100	41	48	10	0
	3 Work on fractions and decimals	100	2	20	73	2
	4 Learn about shapes	100	0	14	84	0
	5 Measure things in the classroom	100	0	8	89	2
	6 Work in groups	100	9	28	61	1
Government	1 Make tables, charts or graphs	100	0	15	81	2
	2 Practise computational skills	100	29	52	19	0
	3 Work on fractions and decimals	100	0	17	77	4
	4 Learn about shapes	100	0	13	87	0
	5 Measure things in the classroom	100	0	6	94	0
	6 Work in groups	100	12	29	60	0
Government-assisted	1 Make tables, charts or graphs	100	2	13	82	1
	2 Practise computational skills	100	46	46	7	1
	3 Work on fractions and decimals	100	3	19	72	2
	4 Learn about shapes	100	1	15	83	1
	5 Measure things in the classroom	100	1	10	86	2
	6 Work in groups	100	9	28	60	2
Private	1 Make tables, charts or graphs	100	0	11	89	0
	2 Practise computational skills	100	41	52	7	0
	3 Work on fractions and decimals	100	4	26	70	0
	4 Learn about shapes	100	0	11	85	0
	5 Measure things in the classroom	100	0	4	93	4
	6 Work in groups	100	7	26	67	0



Not stated (6)

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Table 26. Assignment of Mathematics Homework by Educational District and Standard

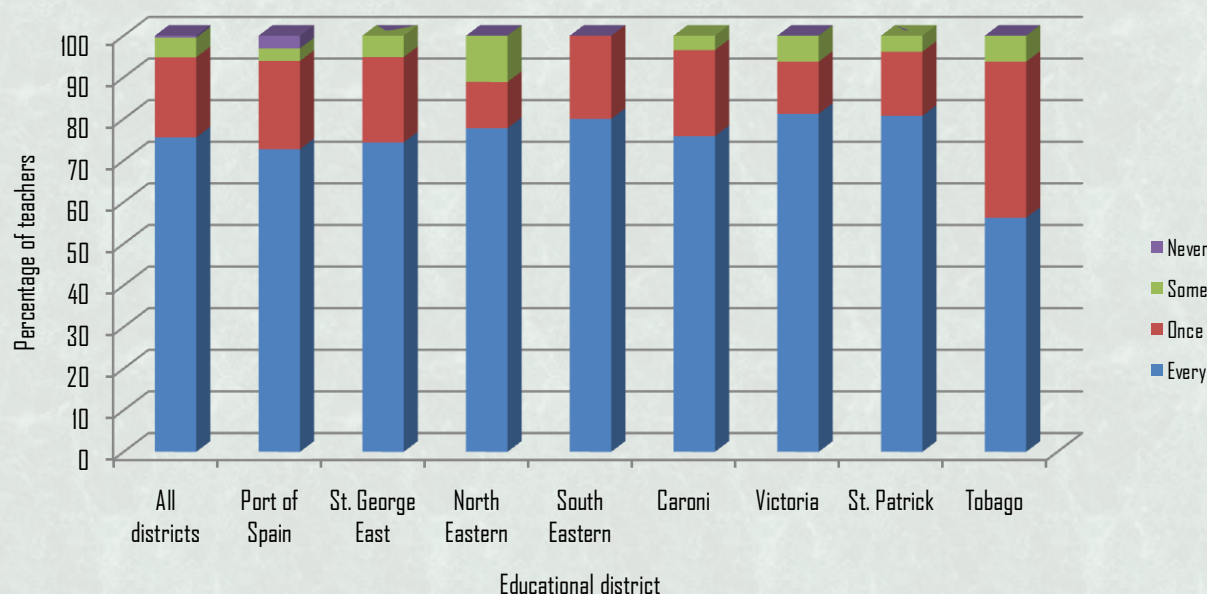
Educational district	Standard	Total	Frequency of mathematics homework - percentage of teachers			
			Every day	Once or twice a week	Sometimes	Never
		(1)	(2)	(3)	(4)	(5)
All districts	All standards	100	76	19	5	0
	Standard 1	100	57	30	13	0
	Standard 2	100	68	27	2	2
	Standard 3	100	75	18	7	0
	Standard 4	100	84	16	0	0
	Standard 5	100	98	2	0	0
Port of Spain	Total	100	73	21	3	3
	Standard 1	100	57	29	14	0
	Standard 2	100	60	20	0	20
	Standard 3	100	75	25	0	0
	Standard 4	100	67	33	0	0
	Standard 5	100	100	0	0	0
St. George East	Total	100	74	21	5	0
	Standard 1	100	67	11	22	0
	Standard 2	100	50	50	0	0
	Standard 3	100	71	29	0	0
	Standard 4	100	100	0	0	0
	Standard 5	100	100	0	0	0
North Eastern	Total	100	78	11	11	0
	Standard 1	100	75	25	0	0
	Standard 2	100	75	0	25	0
	Standard 3	100	75	0	25	0
	Standard 4	100	67	33	0	0
	Standard 5	100	100	0	0	0
South Eastern	Total	100	80	20	0	0
	Standard 1	100	33	67	0	0
	Standard 2	100	100	0	0	0
	Standard 3	100	50	50	0	0
	Standard 4	100	100	0	0	0
	Standard 5	100	100	0	0	0
Caroni	Total	100	76	21	3	0
	Standard 1	100	50	33	17	0
	Standard 2	100	80	20	0	0
	Standard 3	100	83	17	0	0
	Standard 4	100	83	17	0	0
	Standard 5	100	83	17	0	0
Victoria	Total	100	81	13	6	0
	Standard 1	100	57	29	14	0
	Standard 2	100	88	13	0	0
	Standard 3	100	86	0	14	0
	Standard 4	100	75	25	0	0
	Standard 5	100	100	0	0	0

Table 26. Assignment of Mathematics Homework by Educational District and Standard (continued)

Educational district	Standard	Total	Frequency of mathematics homework - percentage of teachers		
			Every day	Once or twice a week	Sometimes
		(1)	(2)	(3)	(4)
St. Patrick	Total	100	81	15	4
	Standard 1	100	83	17	0
	Standard 2	100	60	40	0
	Standard 3	100	80	0	20
	Standard 4	100	80	20	0
	Standard 5	100	100	0	0
Tobago	Total	100	56	38	6
	Standard 1	100	0	75	25
	Standard 2	100	33	67	0
	Standard 3	100	67	33	0
	Standard 4	100	100	0	0
	Standard 5	100	100	0	0

Three-quarters (76%) of the teachers assigned mathematics homework everyday mainly of duration 15-30 minutes (Tables 26 and 27). By educational district, teachers in Tobago assigned homework frequently, especially in standards 1, 2 and 3. When analysed by type of school the data depict a similar pattern (Table 27). A review of such assignment by educational district reveals that a substantial percentage of the teachers in Victoria (31%), St. Patrick (31%) and Tobago (27%) reported duration of homework assignment of more than 30 minutes (Table 28). By type of school, a relatively higher percentage of private primary schools assigned homework everyday of duration of more than 30 minutes compared to 27% and 23% in the government and government aided schools respectively (Table 29).

Chart 33: Assignment of Mathematics Homework by Educational District



[illegible]

	Every day	Once or twice a week	Sometimes	Never
All districts	76	19	5	0
Port of Spain	73	21	3	3
St. George Ea:	74	21	5	0
North Eastern	78	11	11	0
South Eastern	80	20	0	0
Caroni	76	21	3	0
Victoria	81	13	6	0
St. Patrick	81	15	4	0
Tobago	56	38	6	0

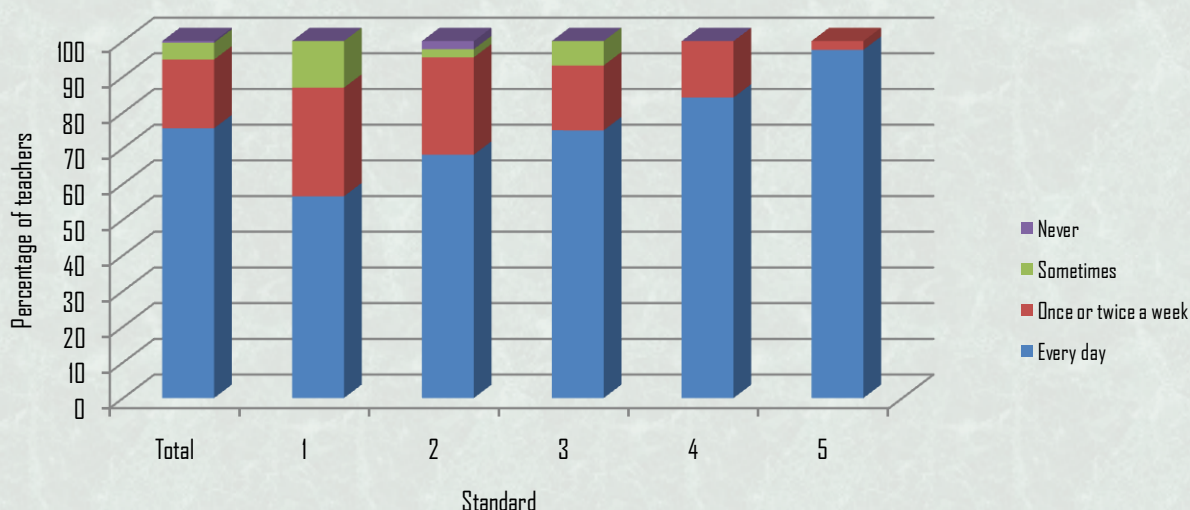
28). As students
one teachers gave
red homework less
of the frequency of
and Port of Spain
percentage (38%) of
ment-assisted and

times	
or twice a week	
day	

Table 27. Assignment of Mathematics Homework by Type of School and Standard

Type of school	Standard	Total	Frequency of mathematics homework - percentage of teachers		
			Every day	Once or twice a week	Sometimes
All schools	Total	(1) 100	(2) 76	(3) 19	(4) 5
	Standard 1	100	57	30	13
	Standard 2	100	68	27	2
	Standard 3	100	75	18	7
	Standard 4	100	84	16	0
	Standard 5	100	98	2	0
Government	Total	100	75	23	2
	Standard 1	100	64	36	0
	Standard 2	100	44	56	0
	Standard 3	100	70	20	10
	Standard 4	100	90	10	0
	Standard 5	100	100	0	0
Government-assisted	Total	100	75	19	5
	Standard 1	100	55	31	14
	Standard 2	100	73	20	3
	Standard 3	100	75	18	7
	Standard 4	100	83	17	0
	Standard 5	100	96	4	0
Private	Total	100	78	15	7
	Standard 1	100	50	17	33
	Standard 2	100	80	20	0
	Standard 3	100	83	17	0
	Standard 4	100	80	20	0
	Standard 5	100	100	0	0

Chart 34: Assignment of Mathematics Homework by Standard





Teachers

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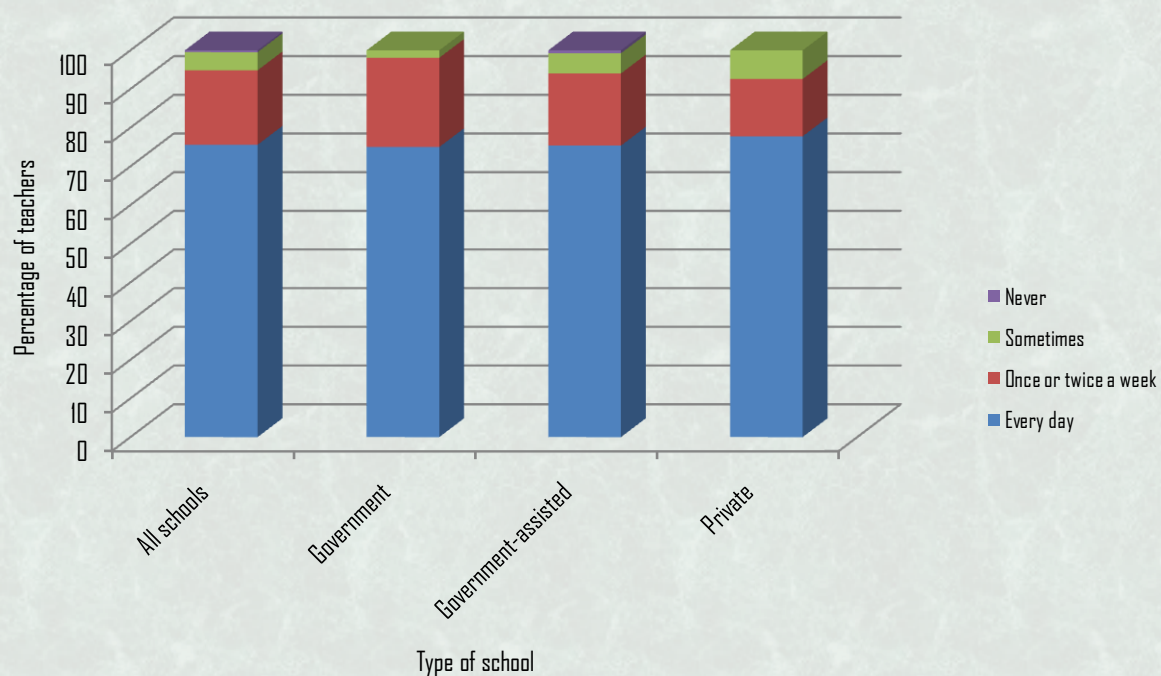
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Chart 35: Assignment of Mathematics Homework by Type of School



Source: Table 27

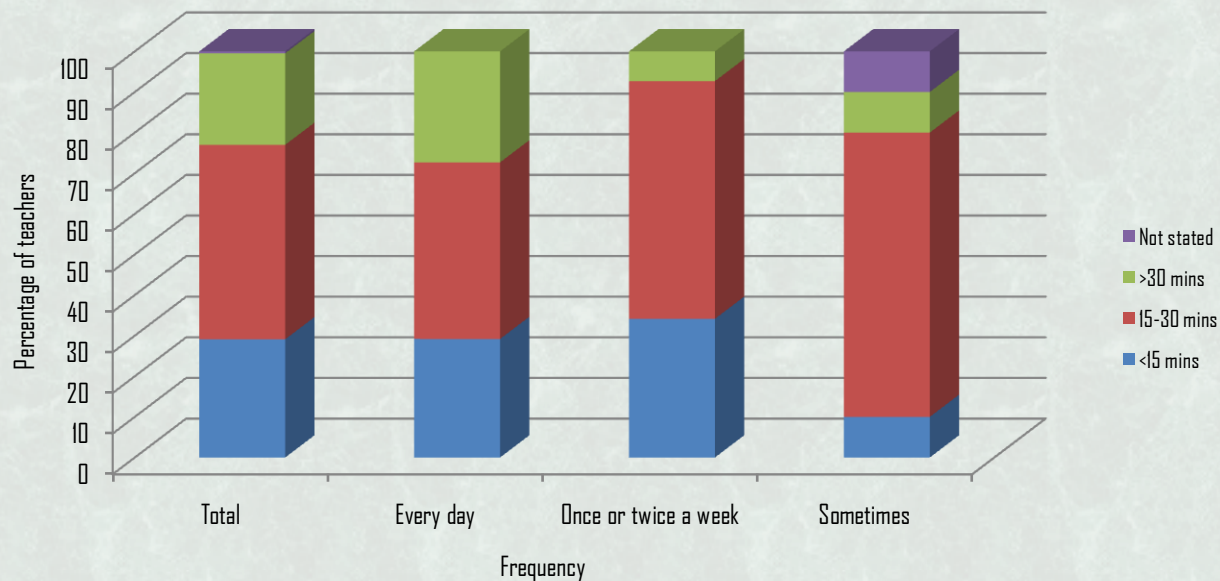
	Every day
All schools	76
Government	75
Government-a	75
Private	78

Once or twice a week	Sometimes	Never
19	5	0
23	2	0
19	5	1
15	7	0

Table 28. Frequency of Mathematics Homework Assignment by Educational District and Duration

Educational district	Frequency of homework assignment	Total	Duration of mathematics homework - percentage of teachers			
			<15 mins	15-30 mins	>30 mins	Not stated
		(1)	(2)	(3)	(4)	(5)
All districts	Total	100	29	48	23	0
	Every day	100	29	43	27	0
	Once or twice a week	100	34	59	7	0
	Sometimes	100	10	70	10	10
Port of Spain	Total	100	21	48	27	3
	Every day	100	29	42	29	0
	Once or twice a week	100	0	71	29	0
	Sometimes	100	0	0	0	100
St. George East	Total	100	33	49	18	0
	Every day	100	34	41	24	0
	Once or twice a week	100	38	63	0	0
	Sometimes	100	0	100	0	0
North Eastern	Total	100	28	56	17	0
	Every day	100	21	57	21	0
	Once or twice a week	100	50	50	0	0
	Sometimes	100	50	50	0	0
South Eastern	Total	100	40	40	20	0
	Every day	100	38	38	25	0
	Once or twice a week	100	50	50	0	0
	Sometimes	0	0	0	0	0
Caroni	Total	100	31	55	14	0
	Every day	100	27	59	14	0
	Once or twice a week	100	50	33	17	0
	Sometimes	100	0	100	0	0
Victoria	Total	100	28	41	31	0
	Every day	100	31	35	35	0
	Once or twice a week	100	25	75	0	0
	Sometimes	100	0	50	50	0
St. Patrick	Total	100	35	35	31	0
	Every day	100	29	33	38	0
	Once or twice a week	100	75	25	0	0
	Sometimes	100	0	100	0	0
Tobago	Total	100	13	69	19	0
	Every day	100	11	56	33	0
	Once or twice a week	100	17	83	0	0
	Sometimes	100	0	100	0	0

Chart 36: Frequency of Mathematics Homework Assignment by Duration - All Districts



Source: Table 28

Table 29. Frequency of Mathematics Homework Assignment by Type of School and Duration

Type of school	Frequency of homework assignment	Total	Duration of mathematics homework - percentage of teachers			
			<15 mins	15-30 mins	>30 mins	Not stated
		(1)	(2)	(3)	(4)	(5)
All schools	Total	100	29	48	23	0
	Every day	100	29	43	27	0
	Once or twice a week	100	34	59	7	0
	Sometimes	100	10	70	10	10
Government	Total	100	33	46	21	0
	Every day	100	31	46	23	0
	Once or twice a week	100	42	50	8	0
	Sometimes	100	0	0	100	0
Government-assisted	Total	100	28	50	22	0
	Every day	100	28	46	27	0
	Once or twice a week	100	36	56	8	0
	Sometimes	100	14	86	0	0
Private	Total	100	26	41	30	4
	Every day	100	33	29	38	0
	Once or twice a week	100	0	100	0	0
	Sometimes	100	0	50	0	50

Table 30. Assessment of Students' Work by Educational District

Educational district	Type of assessment	Total	Assessment used - percentage of teachers		
			Yes	No	Not stated
		(1)	(2)	(3)	(4)
All districts	Homework assignments	100	89	10	0
	Responses of students in class	100	98	2	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	90	9	1
	Projects	100	72	28	0
Port of Spain	Homework assignments	100	91	9	0
	Responses of students in class	100	94	6	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	85	15	0
	Projects	100	64	36	0
St. George East	Homework assignments	100	90	10	0
	Responses of students in class	100	95	5	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	95	3	3
	Projects	100	77	23	0
North Eastern	Homework assignments	100	89	11	0
	Responses of students in class	100	100	0	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	94	6	0
	Projects	100	67	33	0
South Eastern	Homework assignments	100	90	10	0
	Responses of students in class	100	100	0	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	85	10	5
	Projects	100	85	15	0
Caroni	Homework assignments	100	93	7	0
	Responses of students in class	100	97	3	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	93	7	0
	Projects	100	66	34	0
Victoria	Homework assignments	100	94	6	0
	Responses of students in class	100	100	0	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	94	3	3
	Projects	100	75	25	0

Table 30. Assessment of Students' Work by Educational District (continued)

Educational district	Type of assessment	Total	Assessment used - percentage of teachers		
			Yes	No	Not stated
		(1)	(2)	(3)	(4)
St. Patrick	Homework assignments	100	85	12	4
	Responses of students in class	100	100	0	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	81	19	0
	Projects	100	73	27	0
Tobago	Homework assignments	100	75	25	0
	Responses of students in class	100	100	0	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	88	13	0
	Projects	100	69	31	0

The most significant methods which teachers used to determine students' progress in mathematics was teacher-made tests (100%), followed by responses of students in class (98%). Overall, one-quarter (28%) of the teachers, more so in the educational districts of Port of Spain (36%), Caroni (34%) and North Eastern (33%) (Table 30), and in government schools (33%) (Table 31), indicated that students' progress were not evaluated using projects.

Chart 37: Assessment of Students' Work - All Districts

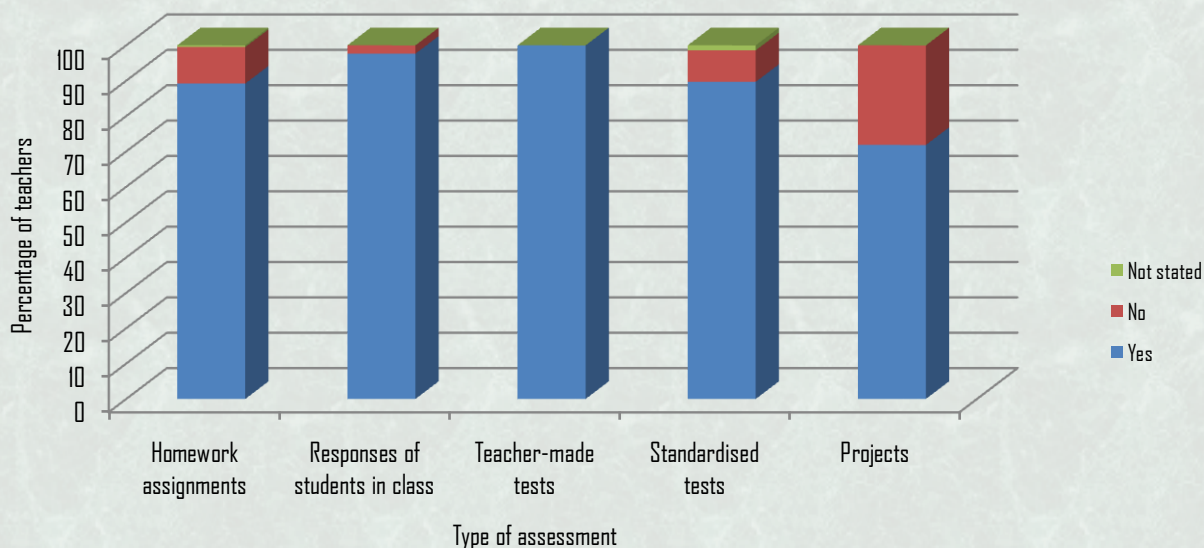


Table 31. Assessment of Students' Work by Type of School

Type of school	Type of assessment	Total	Assessment used - percentage of teachers		
			Yes	No	Not stated
		(1)	(2)	(3)	(4)
All schools	Homework assignments	100	89	10	0
	Responses of students in class	100	98	2	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	90	9	1
	Projects	100	72	28	0
Government	Homework assignments	100	98	2	0
	Responses of students in class	100	100	0	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	90	8	2
	Projects	100	67	33	0
Government-assisted	Homework assignments	100	87	12	1
	Responses of students in class	100	99	1	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	90	9	1
	Projects	100	74	26	0
Private	Homework assignments	100	81	19	0
	Responses of students in class	100	89	11	0
	Teacher-made tests	100	100	0	0
	Standardised tests	100	85	11	4
	Projects	100	70	30	0

Table 32. Agreement with Statements on Mathematics Education by Educational District

Educational district	Statement	Total	Strongly agree	Agree	Disagree	Strongly disagree	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)
All districts	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	5	31	52	9	3
	2 Most teachers have an insufficient understanding of how children learn.	100	3	32	54	9	2
	3 There is a lack of suitable mathematics literature in my school.	100	11	32	44	12	1
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	38	43	14	4	1
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	23	29	32	14	1
Port of Spain	1 Most primary school teachers generally have an inadequate background for the teaching of	100	9	24	52	6	9
	2 Most teachers have an insufficient understanding of how children learn.	100	9	30	42	9	9
	3 There is a lack of suitable mathematics literature in my school.	100	15	33	33	12	6
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	39	42	15	0	3
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	33	33	18	9	6
St. George East	1 Most primary school teachers generally have an inadequate background for the teaching of	100	3	33	54	10	0
	2 Most teachers have an insufficient understanding of how children learn.	100	0	26	67	8	0
	3 There is a lack of suitable mathematics literature in my school.	100	13	23	56	8	0
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	21	38	26	10	5
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	21	31	33	15	0
North Eastern	1 Most primary school teachers generally have an inadequate background for the teaching of	100	6	22	67	6	0
	2 Most teachers have an insufficient understanding of how children learn.	100	6	50	33	11	0
	3 There is a lack of suitable mathematics literature in my school.	100	17	39	28	17	0
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	17	50	28	6	0
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	11	33	56	0	0

Table 32. Agreement with Statements on Mathematics Education by Educational District (continued)

Educational district	Statement	Total	Strongly agree	Agree	Disagree	Strongly disagree	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)
			percentage				
South Eastern	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	5	40	50	0	5
	2 Most teachers have an insufficient understanding of how children learn.	100	0	50	50	0	0
	3 There is a lack of suitable mathematics literature in my school.	100	15	35	40	10	0
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	35	55	5	5	0
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	25	40	35	0	0
Caroni	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	3	31	48	17	0
	2 Most teachers have an insufficient understanding of how children learn.	100	3	28	59	10	0
	3 There is a lack of suitable mathematics literature in my school.	100	7	41	45	3	3
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	41	48	7	3	0
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	24	21	31	21	3
Victoria	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	6	25	53	13	3
	2 Most teachers have an insufficient understanding of how children learn.	100	3	22	59	13	3
	3 There is a lack of suitable mathematics literature in my school.	100	9	31	47	13	0
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	50	41	9	0	0
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	13	22	41	25	0
St. Patrick	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	4	46	35	12	4
	2 Most teachers have an insufficient understanding of how children learn.	100	4	42	46	8	0
	3 There is a lack of suitable mathematics literature in my school.	100	4	27	54	15	0
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	50	35	8	8	0
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	23	38	23	15	0

Table 32. Agreement with Statements on Mathematics Education by Educational District (concluded)

Educational district	Statement	Total	Strongly agree	Agree	Disagree	Strongly disagree	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)
Tobago	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	6	19	69	6	0
	2 Most teachers have an insufficient understanding of how children learn.	100	0	25	63	13	0
	3 There is a lack of suitable mathematics literature in my school.	100	6	38	31	25	0
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	56	38	6	0	0
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	38	13	31	19	0

Chart 38: Agreement with Statements on Mathematics Education - All Districts

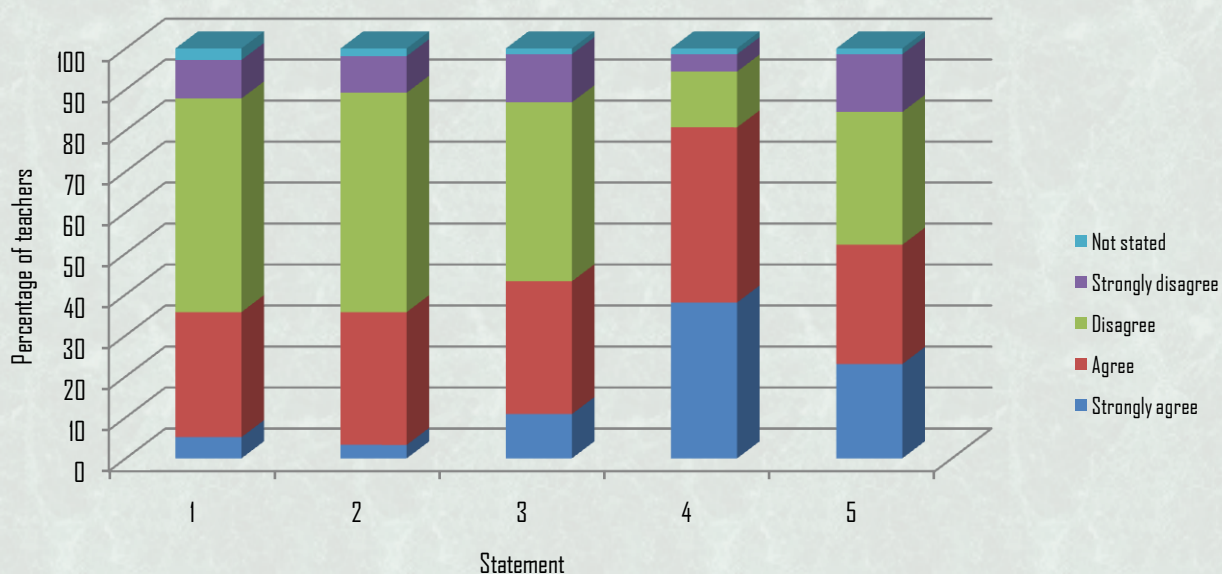


Table 32 shows that a significant percentage (81%) of the sample of mathematics teachers who participated in the survey agreed that primary schools should operate like secondary schools, utilising teachers in specialised fields. There was also a substantial level of agreement (52%) that students need to learn to read and write before mathematics can be successfully taught. However, over a half disagreed that most teachers had an insufficient understanding of how children learn (63%), that they generally had an inadequate background for the teaching of mathematics (61%) and there was a lack of suitable mathematics literature in their schools (56%). By educational district the data show that a half (50%) of the teachers in St. Patrick felt that most primary school teachers generally had an inadequate background for the teaching of mathematics and 45% in South Eastern shared a similar view. Private primary schools were better equipped with suitable mathematics literature than public schools (Table 33).

Table 33. Agreement with Statements on Mathematics Education by Type of School

Type of school	Statement	Total	Strongly agree	Agree	Disagree	Strongly disagree
		(1)	(2)	(3)	(4)	(5)
All schools	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	5	31	52	9
	2 Most teachers have an insufficient understanding of how children learn.	100	3	32	54	9
	3 There is a lack of suitable mathematics literature in my school.	100	11	32	44	12
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	38	43	14	4
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	23	29	32	14
Government	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	4	21	65	6
	2 Most teachers have an insufficient understanding of how children learn.	100	2	25	63	8
	3 There is a lack of suitable mathematics literature in my school.	100	13	33	42	12
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	42	37	13	8
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	19	33	29	19
Government-assisted	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	4	34	50	11
	2 Most teachers have an insufficient understanding of how children learn.	100	4	33	52	10
	3 There is a lack of suitable mathematics literature in my school.	100	10	35	43	10
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	36	47	13	3
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	22	29	33	13
Private	1 Most primary school teachers generally have an inadequate background for the teaching of mathematics.	100	15	30	37	7
	2 Most teachers have an insufficient understanding of how children learn.	100	4	44	41	4
	3 There is a lack of suitable mathematics literature in my school.	100	11	19	52	19
	4 Primary schools should operate like secondary schools, utilising teachers in specialised fields.	100	41	33	19	4
	5 Students need to learn to read and write before mathematics can be successfully taught.	100	33	22	37	7



Not stated
(6)

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Chart 39a: Agreement with Statements on Mathematics by Type of School
Government Schools

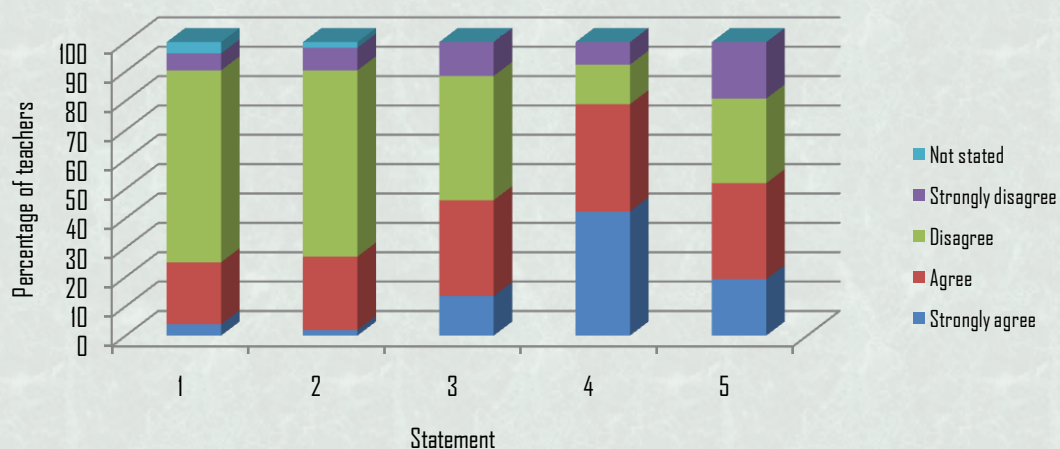


Chart 39b: Agreement with Statements on Mathematics by Type of School
Government-assisted Schools

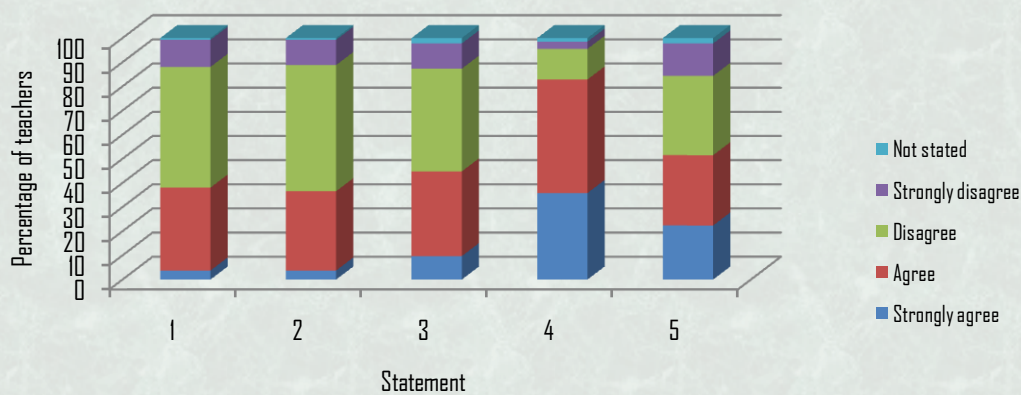
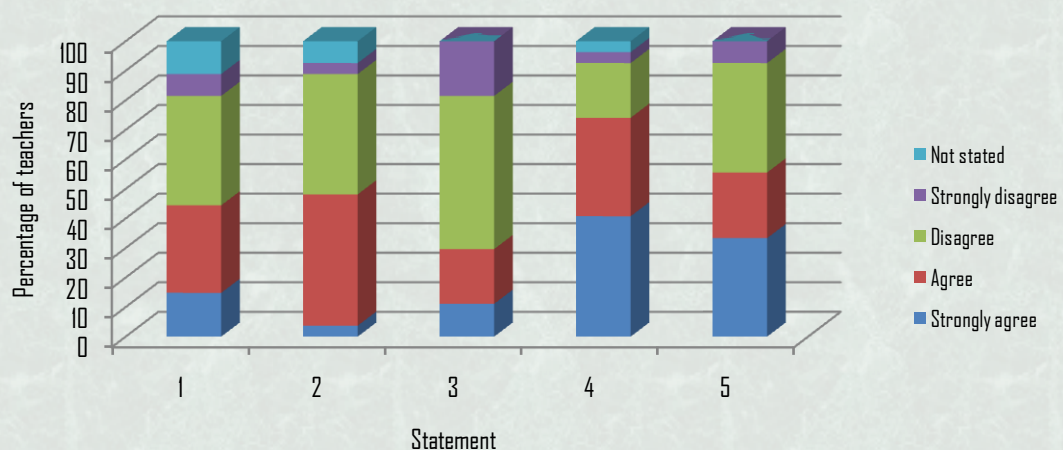


Chart 39c: Agreement with Statements on Mathematics by Type of School
Private Schools



Source: Table 33

Table 34. Issues that Limit Teaching Mathematics by Educational District

Educational district	Issue	Total	Limit - percentage of teachers			
			A great deal	Quite a lot	A little	Not at all
		(1)	(2)	(3)	(4)	(5)
All districts	1 Students who come from a wide range of backgrounds	100	19	27	38	13
	2 Disruptive students	100	25	26	38	9
	3 Parents not interested in their children's learning and progress	100	28	34	28	9
	4 Shortage of other instructional equipment for students' use	100	14	29	42	15
	5 High student/teacher ratio	100	10	18	35	35
	6 Inadequate physical facilities	100	19	19	41	20
	7 Threat(s) to personal safety or the safety of students	100	15	10	22	52
	8 Student absenteeism	100	29	26	35	10
Port of Spain	1 Students who come from a wide range of backgrounds	100	12	12	42	27
	2 Disruptive students	100	18	27	39	12
	3 Parents not interested in their children's learning and progress	100	9	42	27	18
	4 Shortage of other instructional equipment for students' use	100	6	30	39	21
	5 High student/teacher ratio	100	6	15	39	36
	6 Inadequate physical facilities	100	3	18	39	33
	7 Threat(s) to personal safety or the safety of students	100	9	12	15	58
	8 Student absenteeism	100	18	24	39	15
St. George East	1 Students who come from a wide range of backgrounds	100	13	33	41	8
	2 Disruptive students	100	21	21	46	10
	3 Parents not interested in their children's learning and progress	100	31	28	33	8
	4 Shortage of other instructional equipment for students' use	100	8	26	54	13
	5 High student/teacher ratio	100	13	18	33	33
	6 Inadequate physical facilities	100	18	13	41	28
	7 Threat(s) to personal safety or the safety of students	100	8	10	28	54
	8 Student absenteeism	100	28	21	41	10
North Eastern	1 Students who come from a wide range of backgrounds	100	11	33	39	17
	2 Disruptive students	100	33	22	44	0
	3 Parents not interested in their children's learning and progress	100	33	33	33	0
	4 Shortage of other instructional equipment for students' use	100	17	22	50	11
	5 High student/teacher ratio	100	11	22	44	22
	6 Inadequate physical facilities	100	17	39	33	11
	7 Threat(s) to personal safety or the safety of students	100	11	11	11	61
	8 Student absenteeism	100	28	17	50	6
South Eastern	1 Students who come from a wide range of backgrounds	100	25	40	35	0
	2 Disruptive students	100	20	35	35	10
	3 Parents not interested in their children's learning and progress	100	35	35	25	5
	4 Shortage of other instructional equipment for students' use	100	15	30	30	25
	5 High student/teacher ratio	100	0	25	30	45
	6 Inadequate physical facilities	100	15	20	45	20
	7 Threat(s) to personal safety or the safety of students	100	15	10	20	55
	8 Student absenteeism	100	30	45	15	10



Not stated

(6)

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Table 34. Issues that Limit Teaching Mathematics by Educational District (continued)

Educational district	Issue	Total	Limit - percentage of teachers				
			A great deal	Quite a lot	A little	Not at all	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)
Caroni	1 Students who come from a wide range of backgrounds	100	21	17	55	7	0
	2 Disruptive students	100	31	28	31	10	0
	3 Parents not interested in their children's learning and progress	100	28	41	17	14	0
	4 Shortage of other instructional equipment for students'	100	24	28	38	10	0
	5 High student/teacher ratio	100	17	28	24	31	0
	6 Inadequate physical facilities	100	24	21	34	21	0
	7 Threat(s) to personal safety or the safety of students	100	21	7	28	45	0
	8 Student absenteeism	100	41	31	21	7	0
Victoria	1 Students who come from a wide range of backgrounds	100	38	31	22	6	3
	2 Disruptive students	100	38	25	28	6	3
	3 Parents not interested in their children's learning and progress	100	41	22	38	0	0
	4 Shortage of other instructional equipment for students'	100	16	34	38	13	0
	5 High student/teacher ratio	100	3	13	34	47	3
	6 Inadequate physical facilities	100	31	19	38	13	0
	7 Threat(s) to personal safety or the safety of students	100	19	9	25	47	0
	8 Student absenteeism	100	25	22	47	6	0
St. Patrick	1 Students who come from a wide range of backgrounds	100	19	31	23	23	4
	2 Disruptive students	100	15	31	38	15	0
	3 Parents not interested in their children's learning and progress	100	35	31	19	15	0
	4 Shortage of other instructional equipment for students'	100	12	27	42	19	0
	5 High student/teacher ratio	100	12	8	50	31	0
	6 Inadequate physical facilities	100	12	23	54	8	4
	7 Threat(s) to personal safety or the safety of students	100	15	12	23	50	0
	8 Student absenteeism	100	31	31	23	15	0
Tobago	1 Students who come from a wide range of backgrounds	100	6	19	50	19	6
	2 Disruptive students	100	25	19	44	6	6
	3 Parents not interested in their children's learning and progress	100	13	44	31	13	0
	4 Shortage of other instructional equipment for students'	100	19	31	38	13	0
	5 High student/teacher ratio	100	19	25	19	31	6
	6 Inadequate physical facilities	100	38	0	50	13	0
	7 Threat(s) to personal safety or the safety of students	100	31	6	13	44	6
	8 Student absenteeism	100	31	25	38	6	0

Table 34 represents the teachers' responses to issues that limited their teaching of the subject. A substantial percentage of teachers identified the lack of parental interest in children's learning and progress (62%), student absenteeism (55%), disruptive students (51%), students who came from a wide range of backgrounds (46%) and the shortage of instructional equipment (43%) as key issues affecting the teaching of mathematics. Three-quarters (74%) of the teachers stated that threats to personal safety or that of students had little or no effect on teaching. By educational district, student absenteeism was more pronounced in South Eastern (75%) and Caroni (72%) as an issue impacting on teaching. A further review of the data by type of school reveals that a relatively larger proportion of teachers in the government (65%) and government-assisted primary schools (64%) reported that parents were not interested in their children's learning and progress compared to private schools (45%) (Table 35).

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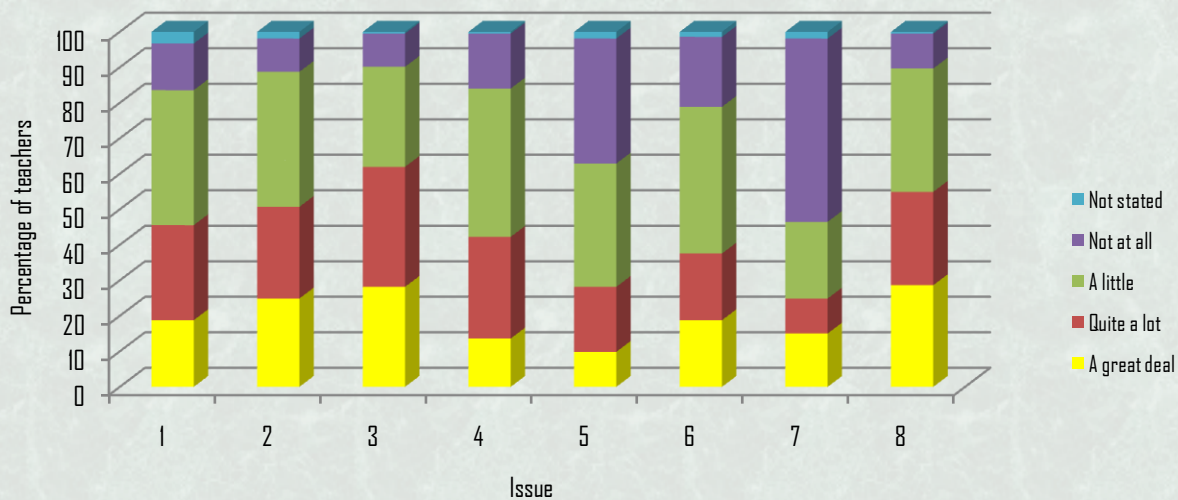
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Chart 40: Issues that Limit Teaching Mathematics - All Educational Districts



Source: Table 34

Table 35. Issues that Limit Teaching Mathematics by Type of School

Type of school	Issue	Total	Limit - percentage of teachers			
			A great deal	Quite a lot	A little	Not at all
		(1)	(2)	(3)	(4)	(5)
All schools	1 Students who come from a wide range of backgrounds	100	19	27	38	13
	2 Disruptive students	100	25	26	38	9
	3 Parents not interested in their children's learning and progress	100	28	34	28	9
	4 Shortage of other instructional equipment for students' use	100	14	29	42	15
	5 High student/teacher ratio	100	10	18	35	35
	6 Inadequate physical facilities	100	19	19	41	20
	7 Threat(s) to personal safety or the safety of students	100	15	10	22	52
	8 Student absenteeism	100	29	26	35	10
Government	1 Students who come from a wide range of backgrounds	100	19	29	35	13
	2 Disruptive students	100	21	23	46	10
	3 Parents not interested in their children's learning and progress	100	25	40	19	15
	4 Shortage of other instructional equipment for students' use	100	10	33	50	8
	5 High student/teacher ratio	100	8	17	37	38
	6 Inadequate physical facilities	100	12	17	44	25
	7 Threat(s) to personal safety or the safety of students	100	8	17	29	46
	8 Student absenteeism	100	29	31	37	4
Government-assisted	1 Students who come from a wide range of backgrounds	100	20	27	40	10
	2 Disruptive students	100	28	28	33	9
	3 Parents not interested in their children's learning and progress	100	32	32	30	5
	4 Shortage of other instructional equipment for students' use	100	16	28	40	15
	5 High student/teacher ratio	100	10	21	36	31
	6 Inadequate physical facilities	100	20	22	42	15
	7 Threat(s) to personal safety or the safety of students	100	18	9	20	50
	8 Student absenteeism	100	31	27	34	8
Private	1 Students who come from a wide range of backgrounds	100	11	22	37	30
	2 Disruptive students	100	19	22	48	11
	3 Parents not interested in their children's learning and progress	100	15	30	37	19
	4 Shortage of other instructional equipment for students' use	100	7	26	33	33
	5 High student/teacher ratio	100	11	7	26	52
	6 Inadequate physical facilities	100	26	4	33	33
	7 Threat(s) to personal safety or the safety of students	100	15	0	15	70
	8 Student absenteeism	100	19	15	37	30

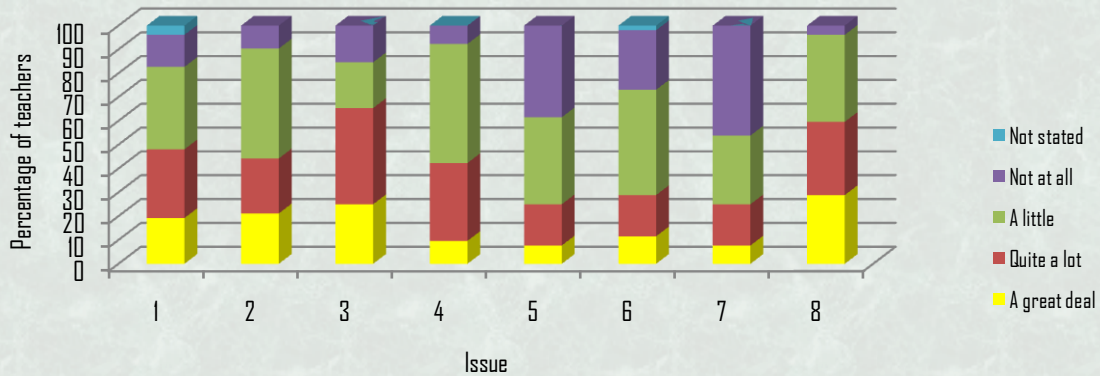


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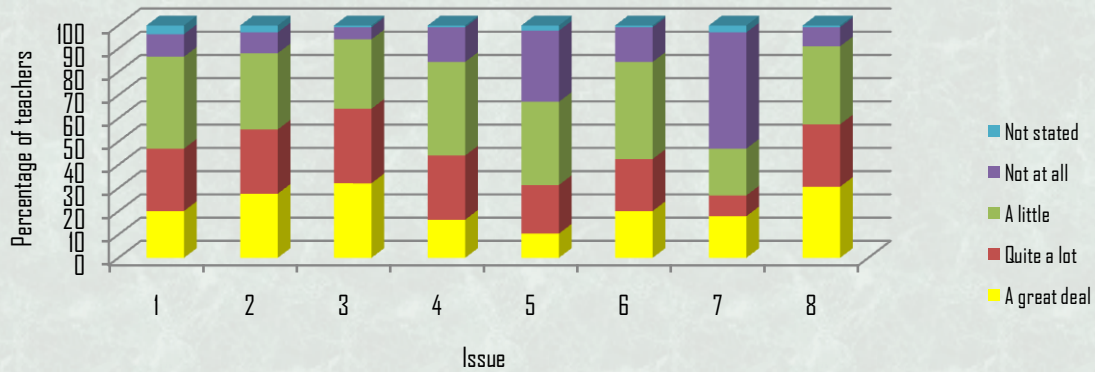
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stated
(6)

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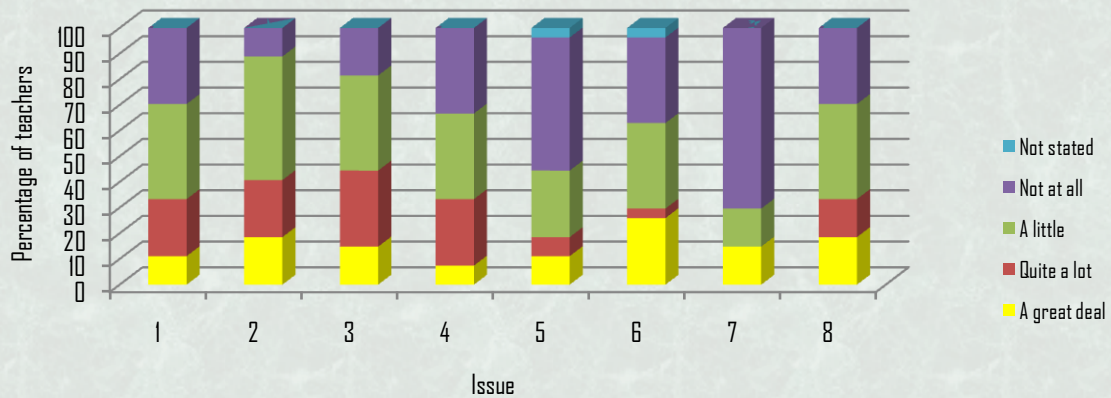
**Chart 41a: Issues that Limit Teaching Mathematics by Type of School
Government Schools**



**Chart 41b: Issues that Limit Teaching Mathematics by Type of School
Government - assisted Schools**



**Chart 41c: Issues that Limit Teaching Mathematics by Type of School
Private Schools**



Source: Table 35

Table 36. Percentage of Teachers Attending Mathematics Workshops by Educational District and

Educational district	Type of school	Total	Attended mathematics works
			Yes
All districts	All schools	100	85
	Government	100	87
	Government-assisted	100	85
	Private	100	85
Port of Spain	Total	100	73
	Government	100	78
	Government-assisted	100	65
	Private	100	86
St. George East	Total	100	85
	Government	100	90
	Government-assisted	100	86
	Private	100	71
North Eastern	Total	100	83
	Government	100	50
	Government-assisted	100	92
	Private	100	100
South Eastern	Total	100	85
	Government	100	67
	Government-assisted	100	87
	Private	100	100
Caroni	Total	100	90
	Government	100	88
	Government-assisted	100	90
	Private	100	100
Victoria	Total	100	88
	Government	100	100
	Government-assisted	100	87
	Private	100	67
St. Patrick	Total	100	92
	Government	100	100
	Government-assisted	100	88
	Private	100	100
Tobago	Total	100	94
	Government	100	100
	Government-assisted	100	88
	Private	100	100

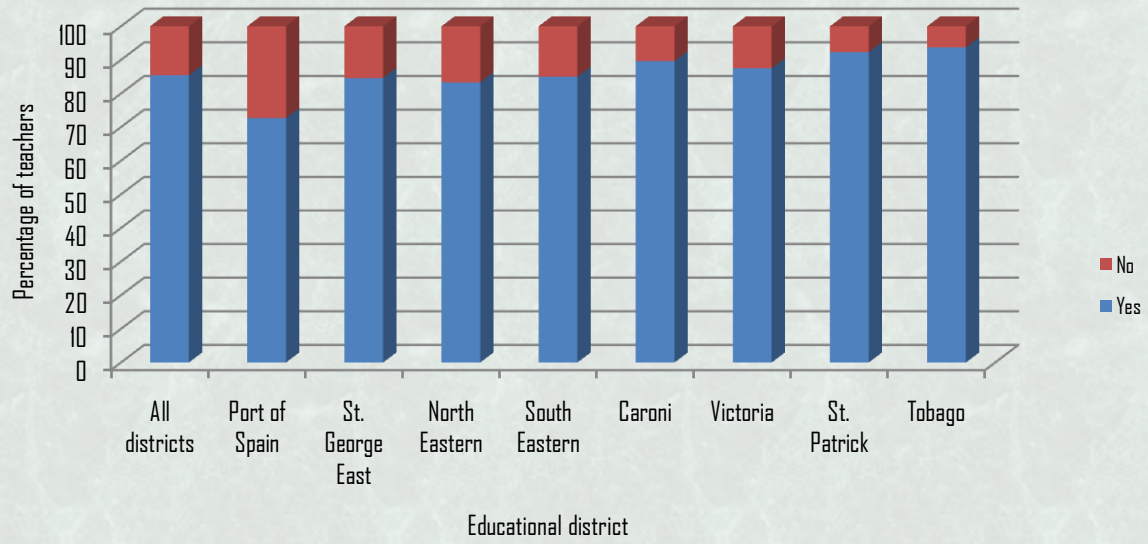
A significant proportion (85%) of the primary school teachers, especially in Tobago (94%), St. Patrick (92%), Caroni attended mathematics workshops, of which 86% attended at least one workshop in the last five years (Table 36 and 37) of the teachers who did not attend workshops was observed in Port of Spain, mainly in the government-assisted sch government school teachers in the North Eastern educational district also did not attend such workshops. Table 37 s workshops attended in the last five years was one (32%), followed by two (26%). In addition, a larger proportion o schools, in Tobago (33%), North Eastern (27%) and St. Patrick (25%) districts were exposed to four or more workshops

Type of School

hop - percentage of teachers
No
(3)
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29
17
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15
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(90%) and Victoria (88%), had
l. The largest percentage (27%)
ools (35%); a half (50%) of the
shows that the modal number of
f teachers, especially in private
in mathematics in the last five

Chart 42: Attended Mathematics Workshops by Educational Districts



Source: Table 36

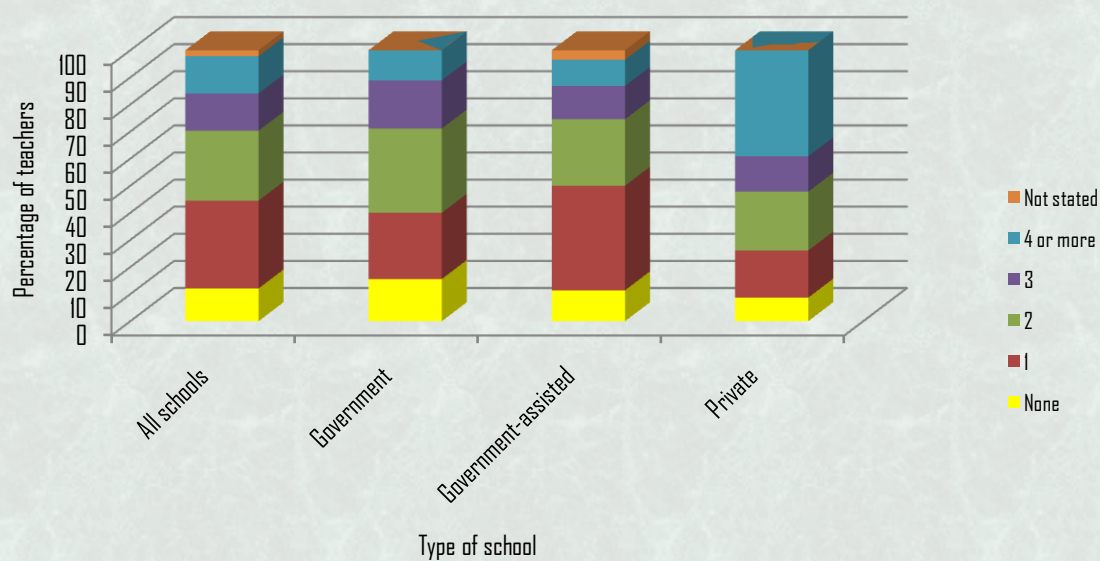
	Yes	No
All districts	85	15
Port of Spain	73	27
St. George East	85	15
North Eastern	83	17
South Eastern	85	15
Caroni	90	10
Victoria	88	13
St. Patrick	92	8
Tobago	94	6

Table 37. Number of Mathematics Workshops Attended last Five Years by Educational District and Type of School

Educational district	Type of school	Total	Number of workshops attended in the last five years - percentage of				
			None	1	2	3	4 or more
		(1)	(2)	(3)	(4)	(5)	(6)
All districts	All schools	100	12	32	26	14	14
	Government	100	16	24	31	18	11
	Government-assisted	100	11	39	25	12	10
	Private	100	9	17	22	13	39
Port of Spain	Total	100	13	25	42	4	17
	Government	100	29	29	29	0	14
	Government-assisted	100	9	36	45	0	9
	Private	100	0	0	50	17	33
St. George East	Total	100	6	45	30	12	6
	Government	100	0	56	22	22	0
	Government-assisted	100	11	42	37	5	5
	Private	100	0	40	20	20	20
North Eastern	Total	100	13	40	13	7	27
	Government	100	50	50	0	0	0
	Government-assisted	100	8	42	17	8	25
	Private	100	0	0	0	0	100
South Eastern	Total	100	6	35	12	18	18
	Government	100	50	0	0	0	50
	Government-assisted	100	0	46	15	15	8
	Private	100	0	0	0	50	50
Caroni	Total	100	19	35	35	4	0
	Government	100	29	14	57	0	0
	Government-assisted	100	11	44	28	6	0
	Private	100	100	0	0	0	0
Victoria	Total	100	18	43	18	18	4
	Government	100	17	0	33	50	0
	Government-assisted	100	20	50	15	10	5
	Private	100	0	100	0	0	0
St. Patrick	Total	100	8	8	25	33	25
	Government	100	0	14	29	29	29
	Government-assisted	100	14	7	21	43	14
	Private	100	0	0	33	0	67
Tobago	Total	100	13	20	20	13	33
	Government	100	0	20	40	20	20
	Government-assisted	100	14	29	14	14	29
	Private	100	33	0	0	0	67

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Chart 43: No. of Workshops Attended last Five Years by Type of School



Source: Table 37

Table 38. Attendance at Mathematics Workshops in Curriculum, Assessment and Teaching Methods by Educational District and Type of School

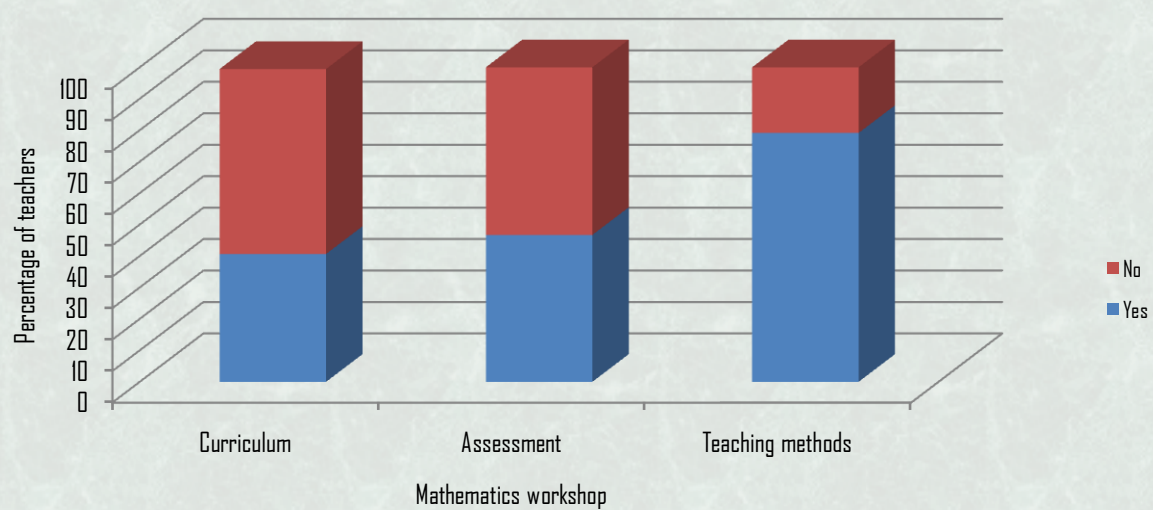
Educational district	Type of school	Workshop attended - percentage of teachers							
		Curriculum			Assessment			Teaching methods	
		Total	Yes	No	Total	Yes	No	Total	Yes
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
All districts	All schools	100	41	59	100	47	53	100	79
	Government	100	42	58	100	44	56	100	80
	Government-assisted	100	38	62	100	47	53	100	77
	Private	100	52	48	100	48	52	100	87
Port of Spain	Total	100	42	58	100	54	46	100	79
	Government	100	57	43	100	71	29	100	71
	Government-assisted	100	36	64	100	55	45	100	82
	Private	100	33	67	100	33	67	100	83
St. George East	Total	100	42	58	100	58	42	100	82
	Government	100	44	56	100	33	67	100	78
	Government-assisted	100	37	63	100	74	26	100	84
	Private	100	60	40	100	40	60	100	80
North Eastern	Total	100	47	53	100	40	60	100	67
	Government	100	0	100	100	0	100	100	100
	Government-assisted	100	50	50	100	42	58	100	58
	Private	100	100	0	100	100	0	100	100
South Eastern	Total	100	47	53	100	71	29	100	76
	Government	100	100	0	100	100	0	100	100
	Government-assisted	100	38	62	100	69	31	100	69
	Private	100	50	50	100	50	50	100	100
Caroni	Total	100	35	65	100	46	54	100	65
	Government	100	29	71	100	43	57	100	71
	Government-assisted	100	33	67	100	44	56	100	67
	Private	100	100	0	100	100	0	100	0
Victoria	Total	100	39	61	100	25	75	100	82
	Government	100	50	50	100	50	50	100	67
	Government-assisted	100	40	60	100	20	80	100	85
	Private	100	0	100	100	0	100	100	100
St. Patrick	Total	100	33	67	100	42	58	100	83
	Government	100	43	57	100	57	43	100	86
	Government-assisted	100	21	79	100	29	71	100	79
	Private	100	67	33	100	67	33	100	100
Tobago	Total	100	47	53	100	40	60	100	100
	Government	100	20	80	100	0	100	100	100
	Government-assisted	100	57	43	100	57	43	100	100
	Private	100	67	33	100	67	33	100	100

Attendance at workshops in teaching methods (79%) was considerably higher when compared to assessment (47%) and curriculum (41%) (Exposure to workshops in curriculum in Caroni (35%) and St. Patrick (33%), and in assessment in Victoria (25%) was relatively low when compared to other educational districts.

ods
No
(9)
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16
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33
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42
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Table 38).
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Chart 44: Attendance at Mathematics Workshops in Curriculum, Assessment and Teaching Methods - All Districts



Source: Table 38

	Yes	No
Curriculum	41	59
Assessment	47	53
Teaching methods	79	21

Table 39. Benefits Derived from Workshops by Educational District

Educational district	Benefit	Total	Percentage
			Yes
		(1)	(2)
All districts	Provided content knowledge	100	55
	Exposure to new teaching techniques	100	83
	Exposure to alternative forms of assessment	100	59
	Exposure to child development principles	100	37
Port of Spain	Provided content knowledge	100	58
	Exposure to new teaching techniques	100	83
	Exposure to alternative forms of assessment	100	58
	Exposure to child development principles	100	42
St. George East	Provided content knowledge	100	42
	Exposure to new teaching techniques	100	82
	Exposure to alternative forms of assessment	100	58
	Exposure to child development principles	100	42
North Eastern	Provided content knowledge	100	73
	Exposure to new teaching techniques	100	87
	Exposure to alternative forms of assessment	100	40
	Exposure to child development principles	100	47
South Eastern	Provided content knowledge	100	82
	Exposure to new teaching techniques	100	76
	Exposure to alternative forms of assessment	100	71
	Exposure to child development principles	100	35
Caroni	Provided content knowledge	100	54
	Exposure to new teaching techniques	100	69
	Exposure to alternative forms of assessment	100	62
	Exposure to child development principles	100	19
Victoria	Provided content knowledge	100	39
	Exposure to new teaching techniques	100	89
	Exposure to alternative forms of assessment	100	54
	Exposure to child development principles	100	36
St. Patrick	Provided content knowledge	100	58
	Exposure to new teaching techniques	100	88
	Exposure to alternative forms of assessment	100	71
	Exposure to child development principles	100	42
Tobago	Provided content knowledge	100	60
	Exposure to new teaching techniques	100	93
	Exposure to alternative forms of assessment	100	53
	Exposure to child development principles	100	33

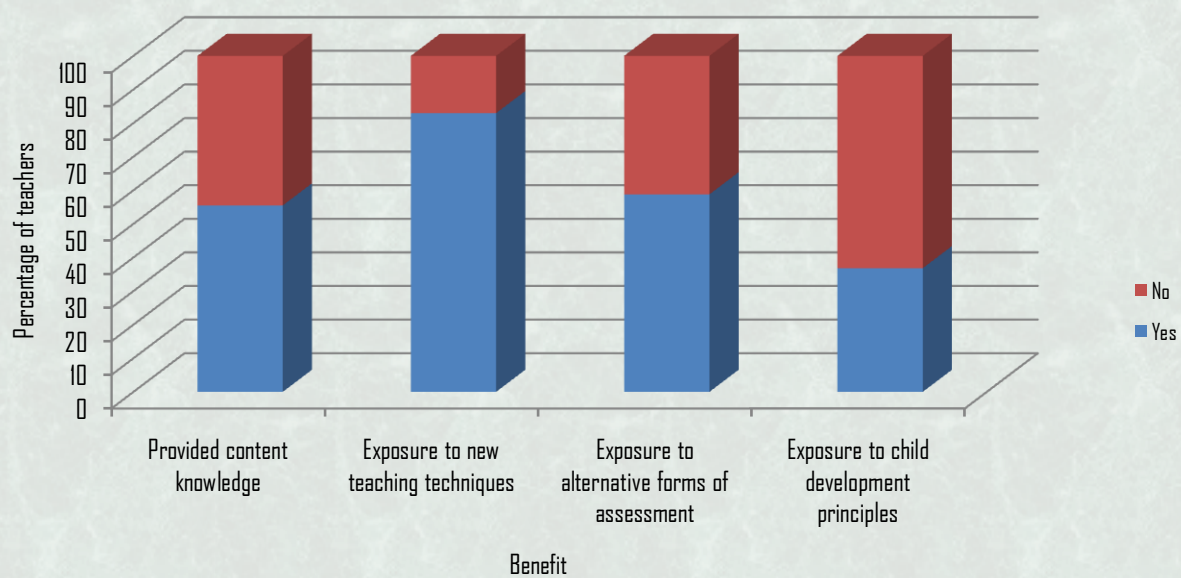
By attending workshops in mathematics most primary school teachers (83%) benefited from exposure to new teaching techniques (59%) from alternative forms of assessment and the provision of content knowledge (55%) (Table 39). Generally, the problems teachers when applying the content of workshops were lack of time (66%), mainly in the educational districts of South Eastern (94%), Victoria (73%) and North Eastern (73%), and lack of materials (57%), especially in Caroni (77%) (Table 41). An examination of the data by type that a larger proportion of the government and government-assisted teachers indicated that they were limited by lack of time and resources than private school teachers (Table 42).



of teachers	
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(3)	
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47	
67	

ies and over a half
achers encountered
a (82%), St. George
e of school reveals
materials compared

Chart 45: Benefits Derived from Workshops - All Districts



Source: Table 39

Table 40. Benefits Derived from Workshops by Type of School

Type of school	Benefit	Total	Percentage of teachers	
			Yes	No
		(1)	(2)	(3)
All schools	Provided content knowledge	100	55	45
	Exposure to new teaching techniques	100	83	17
	Exposure to alternative forms of assessment	100	59	41
	Exposure to child development principles	100	37	63
Government	Provided content knowledge	100	44	56
	Exposure to new teaching techniques	100	80	20
	Exposure to alternative forms of assessment	100	51	49
	Exposure to child development principles	100	36	64
Government-assisted	Provided content knowledge	100	54	46
	Exposure to new teaching techniques	100	82	18
	Exposure to alternative forms of assessment	100	62	38
	Exposure to child development principles	100	38	62
Private	Provided content knowledge	100	83	17
	Exposure to new teaching techniques	100	96	4
	Exposure to alternative forms of assessment	100	57	43
	Exposure to child development principles	100	35	65

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Table 41. Problems Teachers Encounter when Applying the Content of Workshop by Educational District

Educational district	Problem	Total	Percentage
			Yes
All districts		(1)	(2)
	Lack of time	100	66
	Lack of materials	100	57
	Topics not applicable to the syllabus	100	3
	Topics not suited to the age groups	100	5
	Ideas not simple enough	100	5
	Disorder in the classroom	100	12
Port of Spain	Lack of time	100	42
	Lack of materials	100	46
	Topics not applicable to the syllabus	100	0
	Topics not suited to the age groups	100	4
	Ideas not simple enough	100	4
	Disorder in the classroom	100	8
St. George East	Lack of time	100	73
	Lack of materials	100	52
	Topics not applicable to the syllabus	100	9
	Topics not suited to the age groups	100	9
	Ideas not simple enough	100	6
	Disorder in the classroom	100	21
North Eastern	Lack of time	100	73
	Lack of materials	100	67
	Topics not applicable to the syllabus	100	0
	Topics not suited to the age groups	100	7
	Ideas not simple enough	100	13
	Disorder in the classroom	100	7
South Eastern	Lack of time	100	94
	Lack of materials	100	59
	Topics not applicable to the syllabus	100	0
	Topics not suited to the age groups	100	0
	Ideas not simple enough	100	18
	Disorder in the classroom	100	18
Caroni	Lack of time	100	65
	Lack of materials	100	77
	Topics not applicable to the syllabus	100	4
	Topics not suited to the age groups	100	4
	Ideas not simple enough	100	4
	Disorder in the classroom	100	4



of teachers	
No	
(3)	
34	
43	
97	
95	
95	
88	
58	
54	
100	
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94	
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27	
33	
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87	
93	
6	
41	
100	
100	
82	
82	
35	
23	
96	
96	
96	
96	

Table 41. Problems Teachers Encounter when Applying the Content of Workshop by Educational District (continued)

Educational district	Problem	Total	Percentage of teachers	
			Yes	No
		(1)	(2)	(3)
Victoria	Lack of time	100	82	18
	Lack of materials	100	54	46
	Topics not applicable to the syllabus	100	0	100
	Topics not suited to the age groups	100	0	100
	Ideas not simple enough	100	0	100
	Disorder in the classroom	100	11	89
St. Patrick	Lack of time	100	46	54
	Lack of materials	100	54	46
	Topics not applicable to the syllabus	100	4	96
	Topics not suited to the age groups	100	8	92
	Ideas not simple enough	100	0	100
	Disorder in the classroom	100	17	83
Tobago	Lack of time	100	53	47
	Lack of materials	100	47	53
	Topics not applicable to the syllabus	100	0	100
	Topics not suited to the age groups	100	7	93
	Ideas not simple enough	100	7	93
	Disorder in the classroom	100	7	93

Chart 46: Problems Encountered when Applying the Content of Workshops - All Districts

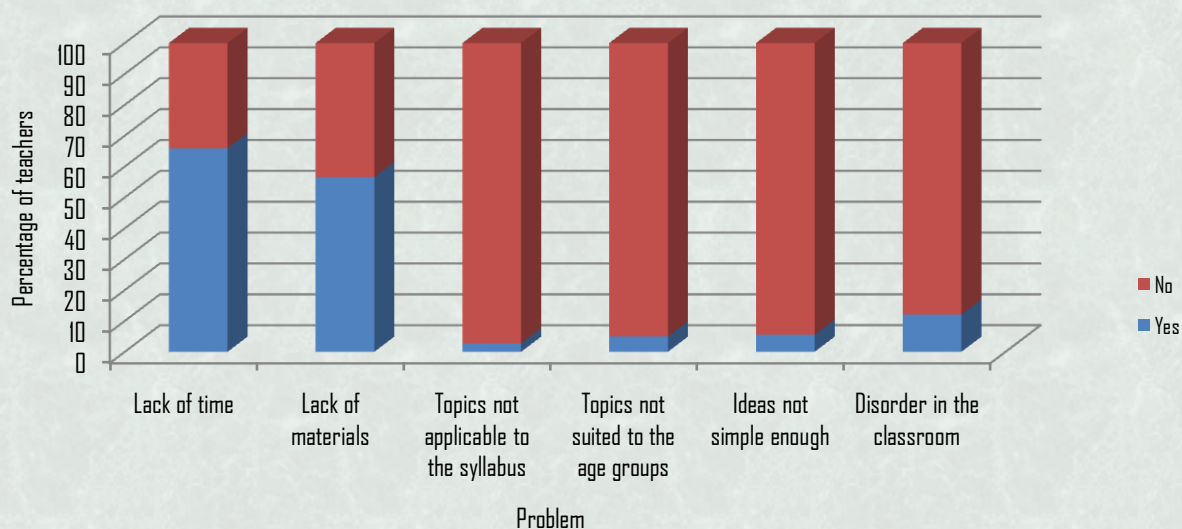


Table 42. Problems Teachers Encounter when Applying the Content of Workshop by Type of School

Type of school	Problem	Total	Percentage of teachers	
			Yes	No
		(1)	(2)	(3)
All schools	Lack of time	100	66	34
	Lack of materials	100	57	43
	Topics not applicable to the syllabus	100	3	97
	Topics not suited to the age groups	100	5	95
	Ideas not simple enough	100	5	95
	Disorder in the classroom	100	12	88
Government	Lack of time	100	73	27
	Lack of materials	100	62	38
	Topics not applicable to the syllabus	100	7	93
	Topics not suited to the age groups	100	7	93
	Ideas not simple enough	100	4	96
	Disorder in the classroom	100	16	84
Government-assisted	Lack of time	100	67	33
	Lack of materials	100	56	44
	Topics not applicable to the syllabus	100	2	98
	Topics not suited to the age groups	100	4	96
	Ideas not simple enough	100	7	93
	Disorder in the classroom	100	12	88
Private	Lack of time	100	48	52
	Lack of materials	100	48	52
	Topics not applicable to the syllabus	100	0	100
	Topics not suited to the age groups	100	4	96
	Ideas not simple enough	100	0	100
	Disorder in the classroom	100	4	96

Table 43. Update Sessions/Reports on Workshops Held in Schools by Educational District and Type of School

Educational district	Type of school	Total	Update sessions/reports - percentage of teachers			
			Yes	No	Do not know	Not stated
		(1)	(2)	(3)	(4)	(5)
All districts	All schools	100	64	17	17	1
	Government	100	69	19	12	0
	Government-assisted	100	59	19	19	2
	Private	100	78	4	19	0
Port of Spain	Total	100	67	12	21	0
	Government	100	78	11	11	0
	Government-assisted	100	53	12	35	0
	Private	100	86	14	0	0
St. George East	Total	100	67	18	15	0
	Government	100	70	20	10	0
	Government-assisted	100	68	23	9	0
	Private	100	57	0	43	0
North Eastern	Total	100	61	11	28	0
	Government	100	75	0	25	0
	Government-assisted	100	54	15	31	0
	Private	100	100	0	0	0
South Eastern	Total	100	65	10	20	5
	Government	100	67	0	33	0
	Government-assisted	100	60	13	20	7
	Private	100	100	0	0	0
Caroni	Total	100	55	28	14	3
	Government	100	50	50	0	0
	Government-assisted	100	60	20	15	5
	Private	100	0	0	100	0
Victoria	Total	100	56	28	13	3
	Government	100	67	17	17	0
	Government-assisted	100	48	35	13	4
	Private	100	100	0	0	0
St. Patrick	Total	100	73	15	12	0
	Government	100	71	14	14	0
	Government-assisted	100	69	19	13	0
	Private	100	100	0	0	0
Tobago	Total	100	69	6	25	0
	Government	100	80	20	0	0
	Government-assisted	100	63	0	38	0
	Private	100	67	0	33	0

Most schools (64%), especially private schools (78%), held update sessions or produced reports for the benefit of the teachers who did not attend workshops (Table 43). However, over one-quarter of the teachers in Caroni (28%) and Victoria (28%) indicated that update sessions were not conducted in their schools. On the frequency of workshops, 46% of the teachers felt that they should be held at least once a term while two-fifths (41%) opted for once a year (Table 44). Approximately three-fifths (62%) of the teachers surveyed indicated that workshops should be held during school time (Table 45).

Chart 47: Update Sessions/Reports on Mathematics Workshops by Educational District

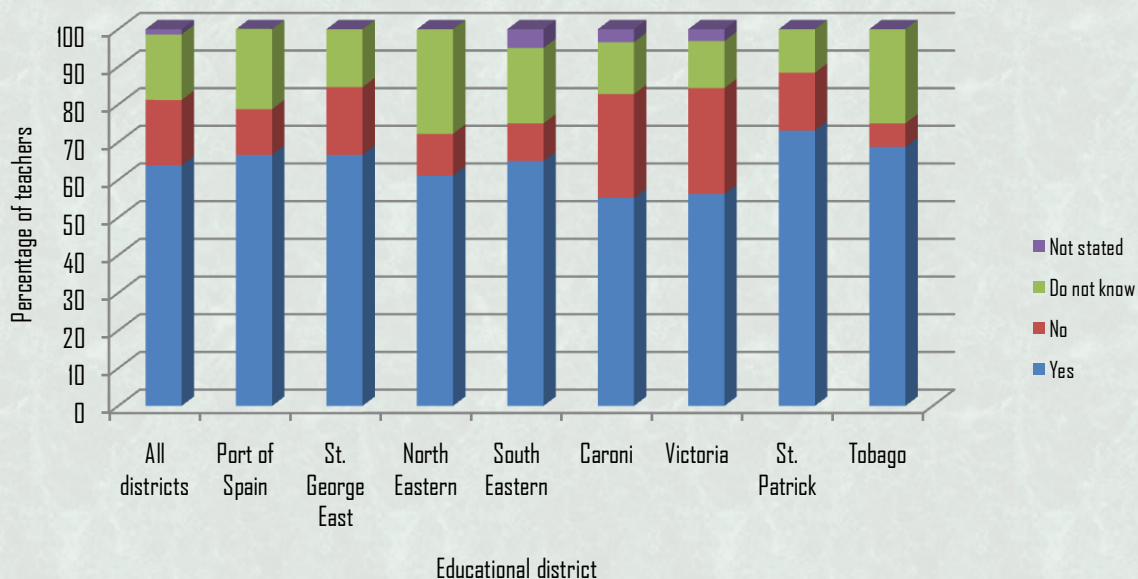
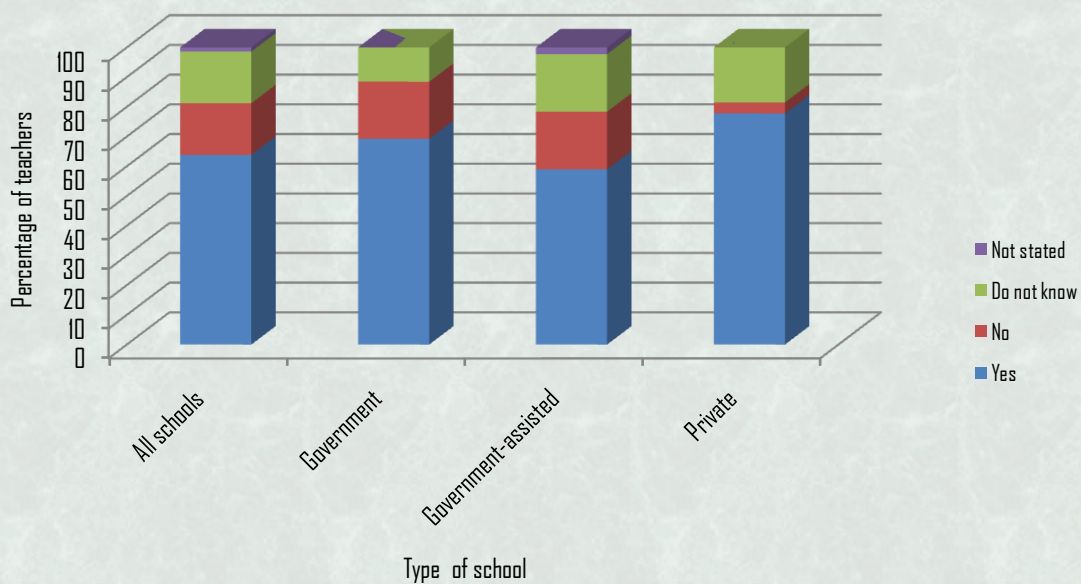


Chart 48: Update Sessions/Report of Mathematics Workshops by Type of School



Source: Table 43

	Yes	No	Do not know
All districts	64	17	17
Port of Spain	67	12	21
St. George East	67	18	15
North Eastern	61	11	28
South Eastern	65	10	20
Caroni	55	28	14
Victoria	56	28	13
St. Patrick	73	15	12
Tobago	69	6	25

Not stated

1

0

0

0

5

3

3

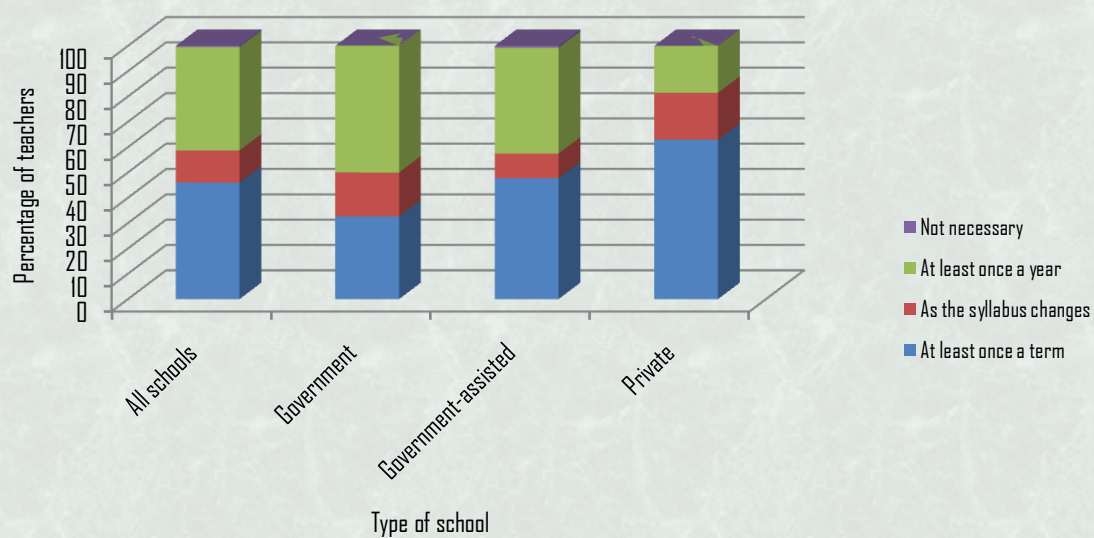
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Table 44. Frequency of Mathematics Workshops by Educational District and Type of School

Educational district	Type of school	Total	Frequency - percentage of teachers			
			At least once a term	As the syllabus changes	At least once a year	Not necessary
		(1)	(2)	(3)	(4)	(5)
All districts	All schools	100	46	13	41	0
	Government	100	33	17	50	0
	Government-assisted	100	48	10	42	1
	Private	100	63	19	19	0
Port of Spain	Total	100	55	9	36	0
	Government	100	56	0	44	0
	Government-assisted	100	59	6	35	0
	Private	100	43	29	29	0
St. George East	Total	100	46	8	46	0
	Government	100	40	10	50	0
	Government-assisted	100	45	5	50	0
	Private	100	57	14	29	0
North Eastern	Total	100	61	22	17	0
	Government	100	25	50	25	0
	Government-assisted	100	69	15	15	0
	Private	100	100	0	0	0
South Eastern	Total	100	45	15	40	0
	Government	100	0	67	33	0
	Government-assisted	100	47	7	47	0
	Private	100	100	0	0	0
Caroni	Total	100	28	7	66	0
	Government	100	13	13	75	0
	Government-assisted	100	35	5	60	0
	Private	100	0	0	100	0
Victoria	Total	100	41	22	34	3
	Government	100	33	17	50	0
	Government-assisted	100	39	22	35	4
	Private	100	67	33	0	0
St. Patrick	Total	100	54	12	35	0
	Government	100	29	29	43	0
	Government-assisted	100	56	6	38	0
	Private	100	100	0	0	0
Tobago	Total	100	44	13	44	0
	Government	100	40	0	60	0
	Government-assisted	100	38	13	50	0
	Private	100	67	33	0	0

Chart 49: Frequency of Mathematics Workshops by Type of School - All Districts

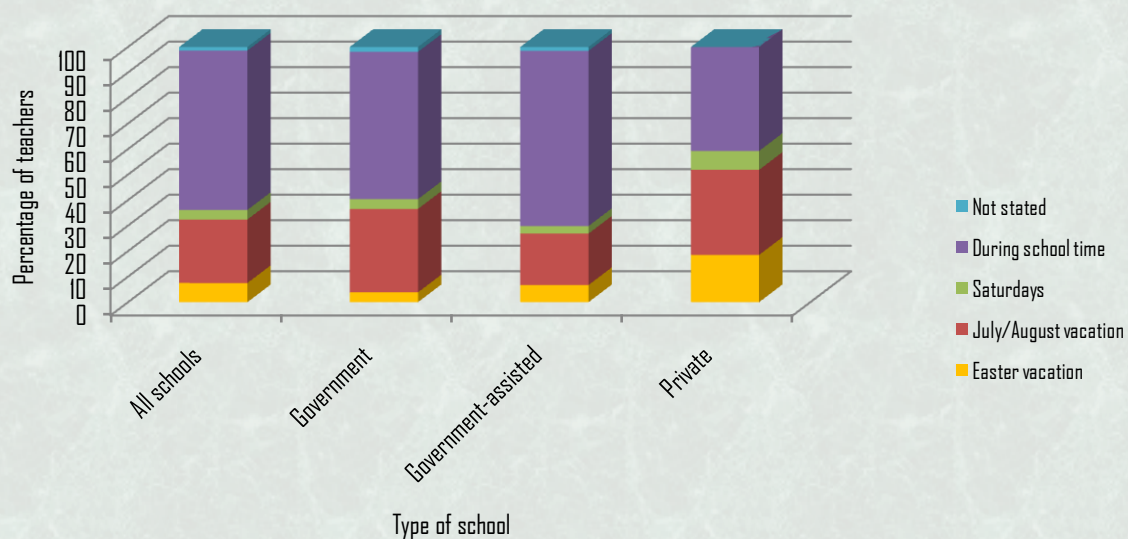


Source: Table 44

Table 45. Time Mathematics Workshops Should be held by Educational District and Type of School

Educational district	Type of school	Total	Time - percentage of teachers				
			Easter vacation	July/August vacation	Saturdays	During school time	Not stated
		(1)	(2)	(3)	(4)	(5)	(6)
All districts	All schools	100	8	25	4	62	1
	Government	100	4	33	4	58	2
	Government-assisted	100	7	20	3	69	1
	Private	100	19	33	7	41	0
Port of Spain	Total	100	9	24	3	64	0
	Government	100	0	56	11	33	0
	Government-assisted	100	0	6	0	94	0
	Private	100	43	29	0	29	0
St. George East	Total	100	8	21	8	62	3
	Government	100	10	10	10	70	0
	Government-assisted	100	9	18	5	64	5
	Private	100	0	43	14	43	0
North Eastern	Total	100	6	28	0	67	0
	Government	100	0	50	0	50	0
	Government-assisted	100	8	15	0	77	0
	Private	100	0	100	0	0	0
South Eastern	Total	100	5	15	10	70	0
	Government	100	0	0	0	100	0
	Government-assisted	100	7	20	7	67	0
	Private	100	0	0	50	50	0
Caroni	Total	100	3	28	3	66	0
	Government	100	0	63	0	38	0
	Government-assisted	100	5	10	5	80	0
	Private	100	0	100	0	0	0
Victoria	Total	100	16	34	3	47	0
	Government	100	17	0	0	83	0
	Government-assisted	100	13	43	4	39	0
	Private	100	33	33	0	33	0
St. Patrick	Total	100	0	23	0	73	4
	Government	100	0	43	0	43	14
	Government-assisted	100	0	19	0	81	0
	Private	100	0	0	0	100	0
Tobago	Total	100	13	25	0	56	6
	Government	100	0	20	0	80	0
	Government-assisted	100	13	25	0	50	13
	Private	100	33	33	0	33	0

Chart 50: Time Mathematics Workshop should be held by Type of School



Source: Table 45