CHAPTER 7

PRIMARY SCHOOL TEACHERS IN TRINIDAD AND TOBAGO

Demographic Patterns, Qualifications, and Self-Efficacy

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In this study, we examined the demographic characteristics, educational qualifications, and self-efficacy attitudes of a representative sample of elementary school teachers (N=496) in Trinidad and Tobago. Results indicated that teachers in the elementary grades are primarily female, with male representation increasing in the upper elementary grade levels. Teachers in urban areas are more diverse group than teachers in rural areas. The majority of teachers had attended a teachers' college, but far less had completed a post-training certificate and even fewer had university degrees. Teachers reported moderate to high self-efficacy beliefs across a number of teaching domains, but post hoc analyses suggested that these beliefs are related to years of experience. The authors suggest placing greater emphasis on teaching as a profession and a reconceptualization of teacher education practices in Trinidad and Tobago.

Trinidad and Tobago is a dual-island republic at the southern end of the chain of Caribbean islands. Formerly a colony of Spain and Great Britain, respectively, the country was granted independence by the British in 1962. Trinidad and Tobago differs from other Caribbean nation states in several ways. First, Trinidad and Tobago has a more ethnically diverse population than most of its neighbors-40.3% of the population is of East Indian descent, 39.5% are of African descent, 18.4% are of Mixed heritage, 0.6% are White, and the remaining 1.2% include Chinese and Arabic descended peoples among them. In contrast, most of the former British colonies in the West Indies (e.g., The Bahamas, Bermuda, Saint Vincent and the Grenadines) have majority Black populations, and many (e.g., Barbados, Jamaica, Saint Kitts and Nevis, Saint Lucia) have populations that are at least 90% of African descent. This ethnic diversity is represented in Trinidad's cuisine and festivals, as well as in the religious participation, with practicing Hindus making up about 25% of the population

Second, Trinidad and Tobago is one of the most prosperous nations in the Caribbean region (Central Intelligence Agency [CIA], 2004; Dookeran, 1998) due in large part to oil and natural gas deposits, and the country's economy has been dominated by the oil industry since the early 1900s. In 2004, Trinidad and Tobago was the only independent Caribbean nation to appear in the top 100 countries in both GDP per capita and GDP real growth, with an expected real growth rate higher than that of the United States (CIA). However, despite Trinidad and Tobago's wealth, there are other facets of the society that are more similar to its less affluent neighbors. For example, the most recent estimate of population living below the poverty line is 21%, paralleling a 20% rate in Jamaica, and the unemployment rate is 10.4%. Similarly, although the reported literacy rate is 98% (CIA), the functional literacy rate is much lower with estimates ranging from 55% to 85%. It is in the context of these disparities—the strong economy versus the high poverty rate, the affluence of the country versus the low functional literacy rate—that we examine the profile of primary school teachers in Trinidad and Tobago.

Primary School Education in Trinidad and Tobago

Since early in its history as an independent nation when Dr. Eric Williams, the country's first Prime Minister, commented that the future of the nation was in the book bags of the nation's children, education has been a priority for the Trinidad and Tobago government. The education system is divided into two general segments, primary (or elementary) school education—that is, the first 7 years of schooling beginning at age 5 and

roughly equivalent to kindergarten to Grade 6 in the United States—and secondary school education, which also has a 7-year sequence. Only the first 5 years of secondary schooling are considered mandatory.

Primary school education has been legally compulsory since 1961 (George & Quamina-Aiyejina, 2002), although the actual enrollment rate for the primary school years is in the 90% to 93% range (Central Statistical Office, 1998; United Nations Development Programme, 2001). George and Quamina-Aiyejina reported that there were 557 public and private primary schools in Trinidad and Tobago, and 47 post-primary centers for students who did not pass the entrance examination for the secondary school system. In 2000, there were 171,062 students (49.3% female) in the primary school system. Only 68.3% and 63% of the students in primary school pass mathematics and English, respectively, in the Secondary Entrance Assessment (di Gropello, 2003), indicating a low success rate in preparing students for secondary school.

Primary School Teachers in Trinidad and Tobago

The requirements for primary school teachers prior to 1985 were passing grades in five or more subjects, including English Language, in the General Certificate of Education (GCE) Ordinary Level examinations, or Caribbean Examination Council (CXC) examinations taken at the end of the fifth year of secondary school. These requirements notwithstanding, individuals were accepted with fewer than five passes due to a dearth of qualified applicants for teaching positions. Since 1985, the five required subjects must include English Language, mathematics, and a science subject (George & Quamina-Aiyejina, 2002). It is important to note that these qualifications are required for employment as a primary school teacher, and not as prerequisites for entering a teachers' training college. Entrance into training college is on the basis of seniority as a practicing teacher. Although this in-service model of training gave way to pre-service training for a period from 1963 to 1975 (Quamina-Aiyejina, Mohammed, Rampaul, George, Kallon, Keller, et al. 1999). an increasing backlog at the training colleges and shortages of teachers for practice in the schools resulted in a return to the in-service model, where teachers begin teaching prior to being eligible for a training college placement. Thus, teachers currently working in the primary schools of Trinidad and Tobago are "secondary school graduates who may or may not have been trained at a teachers' college" (George & Quamina-Aiyejina, 2002, p. 8).

In 1993, the government put in place a formal pre-service program for primary school teachers (George & Quamina-Aiyejina, 2002), but descrip-

tions of this program suggest that it functions as another type of in-service program, at least for some (George, Fournillier, & Brown, 2000), and is not universal. The most recently available government data—for the 1996/1997 school year—indicate that 77.5% of the 7,311 primary school teachers were graduates of a teachers' college (George & Quamina-Aiye-jina, 2002). Also see George, Worrell, Rampersad, and Rampaul (2000), George, Worrell, Rampersad, Rampaul, and Mohammed (2000), Lewin, Keller, and Taylor (2002), and Quamina-Aiyejina et al. (1999) for more detailed descriptions of teacher training in Trinidad and Tobago.

In an ongoing effort to increase the educational options available for teachers, the School of Education at the Trinidad campus of the University of the West Indies offers a one-year Certificate in Education in-service program for primary school teachers who have graduated from a teachers' college and who have at least five years teaching experience. Classes are given in the evening and participants must choose an area of specialization, such as educational administration or teaching science, mathematics, or language arts. More senior teachers, vice principals, and principals can apply to the Bachelor's of Education degree program. At the primary school level, there are only two salary scales, one for teachers prior to going to training college (Special Teacher I) and one for teachers who have completed the diploma at the training college (Teacher I). Completing the Certificate in Education program does not result in a salary increase for a Teacher I, and a Bachelor's degree will only yield a salary increase if the teacher then obtains a post at a secondary school as a Special Teacher III or a Teacher II.

Beginning Teachers in Trinidad and Tobago

In the recent past, there have been several studies on teacher training in Trinidad and Tobago (George, Fournillier, & Brown, 2000; George, Mohammed, Quamina-Aiyejina, Fournillier, & Otway-Charles, 2001; George & Quamina-Aiyejina, 2002; Morris & Joseph, 2000), which have provided descriptions of teachers who were entering teachers' colleges and recent graduates from the colleges. These data indicated that prospective trainees were 70% female, generally between 21 and 30 years old, and had been teaching for 3 to 4 years prior to being admitted to teachers' college. Additionally, 80 to 90% of them had at least five GCE or CXC passes as required. George et al. (2001) also found that the trainees seemed to be getting older.

Morris and Joseph (2000) interviewed eight teachers who had recently completed their training college years. They reported that teachers were very satisfied with the psychology, sociology, and philosophy courses that they received. The teachers were less satisfied with methodology courses, but were able to identify some curriculum delivery and classroom management strategies that were useful. However, these teachers felt that the teachers' college experience had not increased their effectiveness as teachers, and that issues of classroom control and discipline did not work as their teachers' college instructors had predicted, resulting in their returning to "more traditional" (Morris & Joseph, p. 18) and probably more punitive methods. Morris and Joseph (p. 20) drew the following conclusion from their interviews:

In general, newly qualified teachers felt that the Teachers' College programme did not prepare them adequately for work in the school setting. They were aware of the incongruity between their College experiences, including teaching practice, and the classroom reality. In such a situation they focused on survival strategies and in many cases replaced the recommended strategies they had learnt with practical solutions that provided results. They became more concerned with classroom management and control and in some cases reverted to traditional methods of achieving this.

These recent teachers' college graduates felt that effective teachers are "born, not made" (Morris & Joseph, p. 18), and looked to classroom experience to improve their practice.

This view of teacher—as born, not made—is not entirely surprising, given that the system in which primary school teachers in Trinidad and Tobago are socialized. These teachers are hired after completion of less than stellar secondary school credentials, and placed in the classroom without any training and expected to function. Several years later, after they have developed skills and habits that may work for them, even if they are not necessarily the most effective pedagogically, these *practicing* teachers are sent to teachers' colleges with instructors, many of whom have not taught in the primary school system, have not been specifically trained as teacher educators, and whose degrees are in subject matter disciplines. The failure to see teaching as a profession is supported by the absence of any systematic or reliable assessment of teacher effectiveness, both for practicing teachers—pre and post-training college—and for teachers in training (Quamina-Aiyejina et al., 1999), and by tremendously underresourced schools (George & Quamina-Aiyejina, 2002).

The Present Study

There has been increasing public comment about the lack of professionalism in the teaching profession in Trinidad and Tobago. Some have suggested that a Bachelor's degree in education be the minimum creden-

tial for beginning teachers (Beddoe, 2001; James, 2004; Spence, 2002), and in December of 2004, the Minister of Education indicated at an address at Corinth Teachers' College that pre-service training will be mandatory in the near future, and that a proposal for teacher licensing is moving forward, with license renewal every five years dependent on meeting continuing education requirements.

Much of the quantitative data in the studies cited came from government sources, and the actual empirical studies consisted of qualitative studies with small sample sizes (e.g., Morris & Joseph, 2000), or studies of teachers currently attending a teachers' training college (e.g., George et al., 2001). In this study, we (a) profiled the primary school teaching force on major demographic variables, including gender, age, ethnicity, and socioeconomic status (SES), (b) described the educational qualifications of these teachers with regard to the diploma from the teachers' training colleges, university degrees, and the Certificate of Education offered at the University of the West Indies. Finally, we examined these teachers' sense of teaching efficacy and its relationship to the demographic variables and teacher qualifications. This study complements the others already conducted on the primary school teachers of Trinidad and Tobago and provides some guidance for the proposed reforms of the teacher education system.

METHOD

Participants

The participants consisted of a stratified random sample of 494 teachers from 76 schools across Trinidad and Tobago. These teachers' classrooms were chosen as part of a project to develop normative information on reading and behavioral measures for primary school students in Trinidad and Tobago (see Hall, Watkins, & Worrell, 2002; Worrell, Hall, & Watkins, 2002). The normative sample of students came from 78 schools across Trinidad and Tobago, with one class chosen at each grade level. Consequently, the potential sample of teachers was 546, and the actual sample represents 90% of the participating classrooms. The sample parallels the representation of the eight educational regions fairly closely, with the four regions that contain 75% of the school population contributing 73% of the teachers in the sample. The seven grade levels in the primary school system are represented fairly evenly (12.4% to 15.4%; *Mdn* = 14.4%). Thus, the sample is quite representative of the primary school teacher population of Trinidad and Tobago.

Measure

Teachers completed a two-page questionnaire consisting of demographic questions and the Teacher Self-Efficacy Scale (TSES; Bandura, n.d.). The TSES is a 30-item measure developed to assess the self-efficacy of teachers across seven different teaching roles, including Efficacy to Influence Decision Making, Efficacy to Influence School Resources, Instructional Self-Efficacy, Disciplinary Self-Efficacy, Efficacy to Enlist Parental Involvement, Efficacy to Enlist Community Involvement, and Efficacy to Create a Positive School Climate. Respondents rate the items on a 9-point Likert scale with verbal and numerical anchors. Five of the roles consist of three or more items, and scores on these five subscales were found to have fair to moderate reliability in samples of both elementary and secondary school teachers in Trinidad and Tobago (.62 $\leq \alpha \leq$.86, Mdn α = .84; Pierre & Worrell, 2003).

In addition to providing information on the standard demographic variables (i.e., age, gender, ethnicity), and completing the TSES, teachers indicated (a) how many years they have been teaching, (b) if they had completed teachers' college, (c) if they had a university degree, and (d) if they had completed the in-service Certificate of Education. They also rated their socioeconomic status on a 5-point scale (1 = poor, 3 = middle)class, 5 = wealthy).

Procedure

Trained officers of the Ministry of Education collected data in the 2001-2002 academic year. In addition to administering the reading measures to the students in the selected classrooms, the data collectors also asked teachers of those classes to complete two rating scales on the students and the teacher questionnaire, which provided the data for this study.

RESULTS

Demographic Profile of Teachers

As in the United States, the majority of primary school teachers in Trinidad and Tobago (70%) are female, and as Figure 7.1 indicates quite graphically, the majority of the male teachers work with the upper elementary grades. Males made up less than 2% of the teachers in First Year classes, and less than 25% of the teachers in the first five years of primary

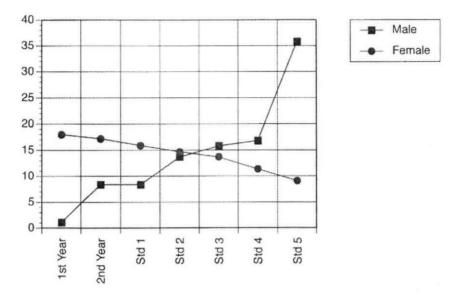


Figure 7.1. Percentage of total male and female teachers at each grade level.

school. The decline in the percentage of female teachers across the grade levels results in a Standard 5 teacher cohort that is gender balanced with 49% of the teachers at that grade level being male.

The teachers ranged in age from 19 to 59, and the age distribution is roughly symmetrical (Mdn = 37). Gender and ethnic groups did not differ in mean age (see Table 7.1). Given a mandatory retirement age of 60, the data indicate that about 15% of the teaching force is within 10 years of retiring. Not surprisingly, the number of years of teaching experience was strongly correlated with age (r = .93), and as with age, there was no difference between genders or among ethnic groups on this variable.

East Indians made up 47.8% of the teachers, with Blacks making up 31.2% and individuals of mixed descent making up 18.6%. These figures indicate an overrepresentation of about 8% for East Indians based on their percentage in the population and an underrepresentation by the same proportion for individuals of African descent. Mixed individuals matched their population percentage at 18.6%, and individuals of Other descent (.6%) were also underrepresented. Although the Mixed (87%) and Black (85%) groups had higher percentages of female teachers than the East Indians (75%), this difference was not statistically significant. The majority of teachers rated themselves as middle class (see Table 7.2), with a substantial minority rating themselves as working class (36%). Males

Table 7.1. Means and Standard Deviations by Gender and Ethnic Group (N = 494)

		Ger	nder				Ethnic	Group				
	Females		Males		Black		East Indian		Mixed		Total	
Variables	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Age	38.7	9.4	39.2	10.2	40.5	9.9	37.6	8.5	39.1	8.5	38.8	9.6
Years teaching	17.0	10.0	18.4	10.7	18.9	10.5	16.1	9.8	17.5	9.7	17.3	10.2
Teaching ability	4.3	0.6	4.3	0.6	4.4	0.6	4.3	0.6	4.3	0.6	4.3	0.6
Efficacy variables												
Decision making	5.5	1.8	6.0	1.5	5.8	1.8	5.5	1.7	5.7	1.8	5.6	1.8
Resources	5.6	2.1	6.0	1.9	5.6	2.0	5.8	2.0	5.4	2.1	5.6	2.0
Instruction	6.0	1.1	6.1	1.0	6.1	1.0	6.0	1.0	6.1	1.2	6.0	1.1
Discipline	7.0	1.2	7.1	1.2	7.1	1.2	7.1	1.2	7.0	1.2	7.1	1.2
Parent involvement	6.3	1.5	5.9	1.4	6.2	1.4	6.2	1.5	6.4	1.5	6.2	1.5
Community involvement	4.1	1.6	4.2	1.4	4.1	1.5	4.2	1.6	3.9	1.6	4.1	1.6
School climate	6.4	1.3	6.4	1.2	6.4	1.3	6.4	1.3	6.4	1.3	6.4	1.3

Table 7.2. Percentages of Categorical Variables by Gender and Ethnic Group (N = 494)

	Gen	der				
Variables	Females	Males	Black	East Indian	Mixed	Total
Attended teachers' college	89.9	90.6	90.9	89.4	90.2	90.1
Has or pursuing a CertEd	17.2	23.3	27.0	10.2	26.0	18.4
Has a university degree	7.1	7.4	13.7	2.6	7.8	7.1
SES is middle class	58.7	49.5	48.0	62.7	59.6	57.4

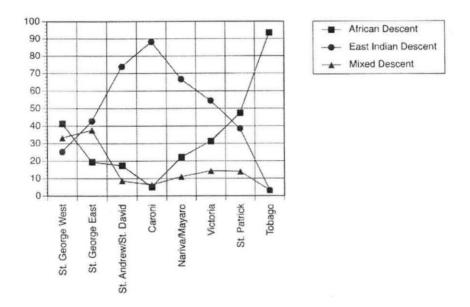


Figure 7.2. Percentage of teachers by ethnic group across educational region.

and females did not differ on SES, but more East Indian and Mixed teachers rated themselves as at least middle class than did Black teachers.

Regional teaching assignments reflected the ethnic make-up of the communities, with educational regions with higher percentages of one ethnic group overall having higher percentages of that group in the region's teachers. These patterns are presented in Figure 7.2, which indicates the percentage of teachers in each region by ethnic group. As can be seen, the educational regions with the capital (St. George West) and the heavily populated East-West corridor (St. George East) both have substantial numbers of teachers from the three major ethnic groups. However, Mixed individuals make up fewer than 15% of the teachers in the six

other regions. Teachers in Tobago are predominantly of African descent, and teachers in Caroni, St. Andrew/St. David, Nariva/Mayaro, and Victoria are predominantly of East Indian descent. The differences are particularly stark in Tobago and Caroni, with the predominant ethnic group in those two regions making up about 90% of the teaching force.

Qualifications of Teachers

Teachers were asked three questions with regard to qualifications: (a) have you attended teachers' training college, (b) do you have a university degree, and (c) do you have, or are you currently pursuing a Certificate of Education? Responses to these questions can be found in Table 7.2. Approximately 90% of the primary school teachers have obtained the diploma granted upon completion of a teachers' college program, and these figures apply across genders and ethnic groups. As expected, the teachers who had not yet completed Teachers' College were younger (M = 27.4) and had fewer years experience (M = 4.8) than those who had completed the diploma (M age = 40.1, M years experience = 18.6).

Far fewer teachers had completed a Certificate of Education or a university degree. More males than females had completed the CertEd, and Blacks and Mixed individuals had completed this credential at a rate 2.5 times higher than East Indians. University degrees were the most infrequent credential earned by these teachers, with more teachers of African descent reporting degrees than the other two groups, and more Mixed individuals reporting degrees than East Indians. There were no differences in age, gender, or years of experience between individuals with degrees or CertEds and those who did not have those credentials.

Teachers' Sense of Efficacy

Before examining mean scores on the efficacy variables, reliability estimates were calculated for the five efficacy composites consisting of three or more items to examine their internal consistency in this sample. These results are presented in Table 7.3. The composites were generally reliable across gender and ethnic groups, with alpha coefficients ranging from .74 to .89 (Mdn = .84). Means and standard deviations for each of the efficacy scores are presented in Table 7.1. Although there were no significant differences by gender or ethnicity, there were a couple of trends worth noting. In general, teachers reported levels of efficacy on the higher end of the 1-9 Likert scale with most of the mean ratings falling between five and six. Teachers reported the highest level of efficacy in the 7-point range

Table 7.3. Reliability Estimates for Teacher Efficacy Variables by Gender and Ethnic Group

	Gen	der				
Variables	Females	Males	Black	East Indian	Mixed	Total
Instructional (9)	.84	.83	.83	.81	.89	.84
Disciplinary (3)	.80	.79	.79	.80	.82	.80
Parental involvement (3)	.83	.74	.81	.82	.87	.82
Community involvement (4)	.89	.77	.87	.86	.88	.87
School climate (8)	.88	.86	.88	.87	.88	.88

Note: Numbers of items on subscales in parentheses.

(quite a bit) on Disciplinary efficacy and their lowest level of efficacy in the 4-point range (between very little and some influence) on their ability to get the community involved in the school.

The efficacy variables had intercorrelations in the medium to high range $(.29 \le r \le .73, Mdn = .48)$, but had modest correlations with other variables. Efficacy in Decision Making had positive correlations with age (r = .27) and years experience (r = .29) that approached the medium effect size for correlation coefficients (r = .30); Newton & Rudestam, 1999).

Differences on the seven self-efficacy variables were examined between individuals who had completed teachers' college and those who had not. Multivariate analysis of variance (MANOVA) was used, as the self-efficacy variables were correlated. Given the tremendously unequal sample sizes, a random sample was drawn from the larger group. Thus, the 49 individuals who had not completed teachers' college were compared to a random sample of 49 individuals who had completed teachers' college. The two groups did not differ by gender, χ^2 (2) = .77, p > .05, or ethnic representation, χ^2 (3) = 6.1, p > .05.

However, the MANOVA was significant, F(7, 90) = 3.5, p < .001, and the univariate Fs for six of the seven self-efficacy variables were also significant. A post hoc discriminant function analysis, the recommended procedure for MANOVA (Weinfurt, 1995) was used. This analysis was significant, Wilks' Lambda = .82, χ^2 (6) = 18.9, p < .005, and correctly classified 70.4% of the two groups (73.5% of the trained teachers and 67.3% of the untrained teachers). The critical variables for the classification, with both structure and standardized coefficients greater than .4, were Efficacy to Create a Positive School Climate, Instructional Self-Efficacy, and Disciplinary Self-Efficacy. Given the contention that experience in the classroom is much more useful than information gained at the teachers' colleges (Morris & Joseph, 2000), the MANOVA was re-calculated includ-

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ing years of experience as a covariate. This analysis was not significant, F (7, 86) = 1.9 p > .05.

DISCUSSION

In this study of practicing primary school teachers in Trinidad and Tobago, we examined demographic characteristics, qualifications, and self-efficacy. The results on demographic characteristics parallel and validate the results reported on teachers attending training college in the 1990s. The gender representation of these teachers was almost identical to reports by George et al. (2001), and the mean age of the teachers who had not yet entered teachers' college fell near the upper end of the range identified by George et al. As most of these teachers are graduates of the first five years of secondary schooling, which is typically completed in the teenage years, the mean age of 27 reported by teachers who had not yet attended teachers' college provides some support for George et al.'s contention that teachers entering training college are getting older. This finding is also supported by this sample's average amount of teaching experience being closer to five years, than the three to four years reported by George et al.

There are two demographic trends in the data worth noting. The first of these is the gender representation of the teaching cohort across grade levels. The population of Trinidad and Tobago and the population of students attending schools are both approximately even by gender. Nonetheless, in the first five grades of primary school, less than 25% of the teaching force is male. The under-representation of males in the early elementary grades is not limited to Trinidad and Tobago (Allan, 1997; King, 1998; Nelson & Sheppard, 1992), as teaching in the early grades is considered a feminine activity in many countries (Allan, 1993, 1994; Carrington, 2002). King (1998) argued that teaching in the primary grades is perceived as caring, which is considered a female activity. Moreover, research suggests that males who work in early childhood education are perceived as less masculine and possibly deviant (King, 1994), and are more closely scrutinized (Sargent, 2002). In a Caribbean context where gender roles are more rigid (Parry, 1996; Richardson, 1988) these concerns may be heightened.

Nonetheless, to the extent that male role models are important at all levels of schooling, concerted efforts must be made to recruit and assign male teachers to the early primary school grades. Additionally, although male and female teachers do not differ in age or years of experience, the number of male principals is almost equal to female principals in the system with a female-male ratio of 1.1-1 (George & Quamina-Aiyejina,

2002), as opposed to the 7-3 ratio of female to male teachers. At best, these figures indicate a substantial under-representation of females in administrative positions and, at worst, gender bias in promotion to administrative positions in a society where male privilege is "unrecognized and uncontested" (Noguera & Worrell, 1998, p. 30).

The second area indicating a dramatic trend is the ethnic representation in regional teaching assignments. It is important to note while this imbalance does indicate clear segregation, it does not reflect biased assignments, as the assignments reflect the natural geographic distribution of the ethnic groups in the population. This pattern is also related to the presence of special types of public schools—that is, assisted schools often run by religious orders—which make up 71% of the public primary schools and 61% of all primary schools. The segregation in schools is also counteracted by the size of the country, and students will be exposed to other ethnic groups via the national media and interact regularly during visits to the urban centers.

With regard to qualifications, the data in the current study indicate a 13% increase in the number of teachers who have completed teachers' college from the mid-1990s, but relatively small numbers with any other credentials. The increase in trained teachers appears to be a step in the right direction. For example, Pierre and Worrell (2003) found that trained teachers in Trinidad and Tobago had higher self-efficacy than teachers who had not attended training college, and noted that the data suggested that training should be required for all teachers. However, these authors also indicated that their data were confounded by the level where the teachers taught (primary versus secondary school), and they did not control for years of experience as was done in this study.

The data in this study do not support increasing the number of teachers who are trained, at least not using the current training. Rather, this study's results indicate that all teachers believe that they are doing a good job, and their sense of self-efficacy is highest in the areas in which those receiving training believe they were least well served in their teacher training institutions (e.g., discipline, instruction). The analyses indicate that years of experience were more important in predicting teachers' self-efficacy than participation in a teacher-training program. However, this study focused on teachers' self-reported self-efficacy and teachers' actual performance in the classroom was not evaluated.

Given the belief that the initial teacher training provided at the teachers colleges is not useful and there is no increased remuneration for additional credentials such as a Certificate of Education or a university degree, it is not surprising that teachers are not seeking these additional credentials in substantial numbers, although this pattern may change if promo-

tion to administrative positions becomes contingent on having one of these additional certifications (James, 2004).

The more important concern here centers on the issue of teacher credentialing more generally and teaching as a profession. Trinidad and Tobago is a nation with substantial economic resources and a strong economy. Part of its success in attracting foreign investment has been a welleducated workforce (Dookeran, 1998). However, its current model of recruitment and training for primary school teachers communicates that formal teacher training is not only not necessary, but also is not useful even when provided. Moreover, the poor pass rate of students in the core subject areas (di Gropello, 2003) will not be rectified if effective teacher training is not put into place. The combination of pass rates in the 60% range in the two core subjects and the primary school teacher training model suggests either that the policy makers do not value education, which is not in keeping with the public rhetoric, or like the teachers themselves, they do not recognize that effective teacher training can make a difference in student learning outcomes (Tennessee Value-Added Assessment System, 1997).

In a world that is becoming more dependent on technology and science, two areas in which the primary school teaching recruits are least well prepared (George & Quamina-Aiyejina, 2002), effective teaching is crucial for maintaining a well-educated workforce and economic growth. Lewin et al. (2002) observed that the declining school-aged population and concomitant reduced need for teachers provides an excellent opportunity for the government to collaborate with local teacher educators in designing a new teacher training model based on the compelling empirical research and policy recommendations in this area (e.g., George & Quamina-Aiyejina).

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REFERENCES

- Allan, J. (1993). Male elementary teachers: Experiences and perspectives. In C. L. Williams (Ed.), *Doing "women's work": Men in nontraditional occupations* (pp. 113-127). Thousand Oaks, CA: Sage.
- Allan, J. (1994). Anomaly as exemplar: The meanings of role-modeling for men elementary teachers. (ERIC Document Reproduction Service No. ED378190)
- Allan, J. (1997). The persistent fewness of men elementary teachers: Hypotheses from their experiences. (ERIC Document Reproduction Service No. ED418064)
- Bandura, A. (2005). Teacher Self-Efficacy Scale. Unpublished measure.
- Beddoe, I. B. (2001, June 20). Restructuring primary teacher education. *Newsday* [Trinidad and Tobago], p. 11.
- Carrington, B. (2002). A quintessentially feminine domain? Student teachers' constructions of primary teaching as a career. *Educational Studies*, 28, 287-303.
- Central Intelligence Agency. (2004). The world factbook. Washington, DC: Author.
- Central Statistical Office. (1998). Report on Education Statistics 1996/1997. Port of Spain, Trinidad: Author.
- di Gropello, E. (2003). *Monitoring educational performance in the Caribbean* (World Bank Working Paper No. 6). Washington, DC: The World Bank.
- Dookeran, W. (1998). The Trinidad and Tobago economy: Past, present and future. Quarterly Economic Bulletin, 23, 62-67.
- George, J., Fournillier, J., & Brown, M. (2000). On the job training: Pre-service teacher training in Trinidad and Tobago (Multi-site Teacher Education Research Project Discussion Paper 19). Brighton, United Kingdom: University of Sussex Institute of Education, The Center for International Education.
- George, J., Mohammed, J., Quamina-Aiyejina, L., Fournillier, J., & Otway-Charles, S. (2001). Primary teacher trainees in Trinidad and Tobago: Characteristics, images, experiences and expectations (Multi-site Teacher Education Research Project Discussion Paper 22). Brighton, United Kingdom: University of Sussex Institute of Education, The Center for International Education.
- George, J., & Quamina-Aiyejina, L. (2002). Trinidad and Tobago: MUSTER country report (Multi-site Teacher Education Research Project Country Report 4). Brighton, United Kingdom: University of Sussex Institute of Education, The Center for International Education.
- George, J., Worrell, P., Rampersad, J., & Rampaul, B. (2000). Becoming a primary school teacher in Trinidad and Tobago, Part 2: Teaching practice experience of trainees (Multi-site Teacher Education Research Project Discussion Paper 20). Brighton, United Kingdom: University of Sussex Institute of Education, The Center for International Education.
- George, J., Worrell, P., Rampersad, J., Rampaul, B., & Mohammed, J. (2000). Becoming a primary school teacher in Trinidad and Tobago, Part 1: The curriculum in the teachers' colleges (Multi-site Teacher Education Research Project Discussion

- Paper 20). Brighton, United Kingdom: University of Sussex Institute of Education, The Center for International Education.
- Hall, T. E., Watkins, M. W., & Worrell, F. C. (2002). Reading assessments for elementary schools. State College, PA: CEDAR School Psychology Clinic, The Pennsylvania State University.
- James. C. (2004). Breaking the silence: Using journal to stimulate self-evaluation toward change in the Trinidad primary school system. Caribbean Curriculum, 11, 85-113.
- King, J. R. (1994). Uncommon caring: Primary males and implicit judgments. (ERIC Document Reproduction Service No. ED375086)
- King, J. R. (1998). Uncommon caring: Learning from men who teach young children. Williston, VT: Teachers College Press.
- Lewin, K. (with Keller, C., & Taylor, E.). (2002). Teacher education in Trinidad and Tobago: Costs, financing and future policy (Multi-site Teacher Education Research Project Discussion Paper 9). Brighton, United Kingdom: University of Sussex Institute of Education, The Center for International Education.
- Morris, J., & Joseph, A. (2000). New qualified teachers: Impact on/interaction with the system - Trinidad and Tobago (Multi-site Teacher Education Research Project Discussion Paper 15). Brighton, United Kingdom: University of Sussex Institute of Education, The Center for International Education.
- Nelson, B. G., & Sheppard, B. (Eds.) (1992). Men in child care & early education: A handbook for administrators and educators. Washington, DC: National Association for the Education of Young Children. (ERIC Document Reproduction Service No. ED472194)
- Newton, R. R., & Rudestam, K. E. (1999). Your statistical consultant: Answers to your data analysis quesions. Thousand Oaks, CA: Sage.
- Noguera, P. A., & Worrell, Frank, C. (1998, January). The crisis of the Black male in the English-speaking Caribbean. Caribbean Perspectives, 25-31.
- Parry, O. (1996). In one ear and out the other: Unmasking masculinities in the Caribbean classroom. Sociological Research Online, 1 (2). Retrieved May 19, 2005, from http://www.socresonline.org.uk/socresonline/1/2/2.html
- Pierre, P., & Worrell, F. C. (2003). Differences between elementary and secondary school teachers in Trinidad and Tobago on teacher self-efficacy. Caribbean Curriculum, 10, 109-128.
- Quamina-Aiyejina, L., Mohammed, J., Rampaul, B., George, J., Kallon, M., Keller, C., et al. (1999). Trinidad and Tobago: A baseline study of the teacher education system (Multi-site Teacher Education Research Project Country Discussion Paper 6). Brighton, United Kingdom: University of Sussex Institute of Education, The Center for International Education.
- Richardson, A. G. (1988). Sex-role orientation: Differences among students and teachers. Social Behavior & Personality, 16, 165-168.
- Sargent, P. (2002). Under the glass: Conversations with men in early childhood education. Young Children, 57(6), 22-28.
- Spence, J. (2002, May 15). Those who can't, teach. Daily Express (Trinidad and Tobago), p. 11.

- Tennessee Value-Added Assessment System. (1997). Graphical summary of educational findings from the Tennessee value-added assessment system. Knoxville, TN: Value-Added Research and Assessment Center, University of Tennessee.
- United Nations Development Programme. (2001). Trinidad and Tobago national human development report 2000: Youth at risk in Trinidad and Tobago. Port of Spain, Trinidad: Author.
- Weinfurt, K. P. (1995). Multivariate analysis of variance. In L. G. Grimm & P. R. Yarnold (Eds.), Reading and understanding multivariate statistics (pp. 245-276). Washington, DC: American Psychological Association.
- Worrell. F. C., Hall, T. E., & Watkins, M. W. (2002). Behavioural rating scales for elementary schools: Interim manual. State College, PA: CEDAR School Psychology Clinic, The Pennsylvania State University.