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# Primary Teachers' Attributes and Attitudes in Singapore

Chua-Tee Teo & Jessie Ee

#### **Abstract**

Teachers are important elements in the life of young children as they are facilitators of learning, counsellors of student problems and gardeners of growth and development. This study examines the attributes and attitudes of in-service teachers in primary schools with respect to current educational policies and new initiatives. Three samples of teachers in the study include teachers teaching children with special needs, teachers in the mainstream classrooms and teachers teaching intellectually gifted pupils. Attributes examined include self-reported virtues of truthfulness, peacefulness, a sense of justice, trustworthiness, care and love for pupils, a forgiving nature and service-orientation. Attitudes documented include optimism, a willingness to learn, an understanding of talents and their development and ability to adjust to the Ministry of Education (MOE) initiatives. Results of the study will inform teacher educators and the MOE in making better decisions on teacher selection and training required to attain the desired outcomes of education.

#### Introduction

Education is an essential institution in the progress and civilisation of humankind. It serves to instruct, guide and train a person to unfold and manifest his innate and inherited abilities to the extent of his capacity without undue stress or strain. The teacher is the most potent factor in the educational process. The teacher not only passes on knowledge and skills to the students, he/she also transforms lives and transmits values and attitudes either consciously or unconsciously.

Good teachers may be likened to good gardeners. They possess good knowledge, both in the subject matter they are teaching and in the development of children. In addition, they are distinguished for their standards of conduct and general excellence. In addition to having sound pedagogical skills, they are eventempered, forbearing, loving, caring, kind, encouraging and nurturing towards young children. They inspire and exemplify learning, thinking and discovery.

Good teaching cannot be reduced to technique; good teaching comes from identity and integrity of the teacher.

Good teachers may be recognised by their variety of effective teaching methods, may it be the use of Socratic dialogues, direct teaching, lectures, laboratory experiments, collaborative problem-solving, creative discovery and artistic handiwork. In fact, they are often identified more readily by their attributes and attitudes, the mere products of the interaction of their intellectual acumen, spirit and passion for the profession. This study aims to document, examine and compare primary school teachers' perceptions of their personal attributes in the mainstream, special education and gifted education schools in Singapore.

#### Rationale

The greatest predictor of school-related achievement seems to be teacher effectiveness (Sullivan, 2001). Dobbs (2003) in a recent report on student and teacher performance has noted the difficulties in documenting teacher effectiveness. It appears that various schools in different countries use their own quantitative and qualitative performance measures. A comprehensive and multifaceted system would be the "Douglas system of measurement" which defines teacher effectiveness as teacher involvement in group activities, individual achievement and student performance (Dobbs, 2003). Effective teachers seem to be those "good" teachers who have helped to bring about observable and/or measurable improvements in school activities, personal growth and student achievement. Sanders and Horns (1998), and Sanders and Rivers (1996), in their well-known studies, have examined the effects of school systems, individual schools and teachers on student achievement using value-added data while controlling for external variables of socioeconomic status, parental and peer influences. They found that high achieving students taught by most effective teachers had gains of about 25 percentile points, while high achieving students taught by the least effective teachers exhibited mean gains of 2 percentile points only. For average students taught by the most effective teachers, gains of about 35 percentile points were reported, and for average students taught by the least effective teachers, only 10 percentile points were gained. The least effective teachers of low performers produced an average gain of just 14 percentile points, while the most effective teachers of these students produced a mean gain of 53 percentile points. Finally, students assigned to ineffective teachers continued to show the effects of those teachers, even after they were assigned to highly effective teachers in subsequent years. Sanders' students who were assigned to ineffective teachers in grades three through five exhibited threeyear test-score cumulative gains of only 29 percentile points, whereas those with highly effective teachers in the same period showed gains of 83 percentile points. It is evident that the most effective teachers have a profound impact on students regardless of student ability, whilst the ineffective teachers have detrimental effects on students' learning and performance.

It is interesting to note the long term effects or pronounced differences in percentile points of students taught by the most effective and the least effective teachers. The vast difference of 50 percentile points for students taught by the respective teachers might imply a placement or a label difference as "retarded", "slow" or "gifted" learner, hence producing a life time difference of being a school drop-out, or being enrolled in a polytechnic or university. Such are the possible effects of good and bad teachers on the life of the student. Good teachers are those who exert positive and visible growth influences on students while bad teachers are those who produce no positive gains or could impede student progress. Identifying and training for good teachers are thus the concerns of any reputable teacher education institution.

In fact, good teachers are simply the ideal embodiments of all essential qualities, knowledge and skills present in abundance. They are capable of helping students understand the complexity, interconnectivity and reality of the world through learning, inquiry, creativity and discovery with their wealth of knowledge, skills and quest for knowledge. With their reservoir of values, ideals and principles, the teachers also stimulate the development of values in the life of the students significantly (Veugelers, 1995). Like knowledge and skills, personal attributes and dispositions could, to some extent, be "trained" and "developed" over time with conscious choice and education. Understanding the distribution and type of teacher attributes and attitudes will enable teacher educators to identify teachers with potential. Training has important impact only after screening or pre-selection of these teachers with the essential attributes needed to become good or effective teachers.

#### Literature

In a report on teacher education, Sullivan (2001) notes that "highly talented teacher candidates" have strong subject-matter knowledge, excellent work experience and effective methods for transmitting knowledge. Classroom effectiveness has also been noticed to be related to the teacher's verbal ability, content knowledge and the quality of the college or university attended (Sullivan, 2001). Recent research has shown that students demonstrate higher levels of intrinsic motivation and self-determination when teachers are more supportive of autonomy and less controlling (Pelletier, Seguin-Levesque & Legault, 2002).

Just as different cultures value education in different ways (Mortimor, 2000), the definition of an effective or good teacher also varies in different contexts. Kozol (1993), in his book *On Being a Teacher*, advocates fairness, truth, integrity and a driving compassion for the world beyond the classroom, as the essential teacher attributes and values for eradicating prejudices, developing potential and helping youth become agents of social change.

Palmer (1998), on the other hand, feels that all good teachers share a common trait, namely, their true presence in the classroom, their deep engagement with the students and the subject matter. In fact, good teachers usually help

students see connections and applications. For Palmer (1998), education involves guiding students on "an inner journey toward more truthful ways of seeing the world".

Teacher characteristics and attitudes in reported research studies are usually specific to the needs and context of the study. For example, Zuelke (2001) when studying the attitude, cost and school effects on sixth-grade achievement, regards variables on quality of instruction as "teacher characteristics". These are "clear verbal/written task instructions and objectives", "teacher reinforcement of students participation" and "adequate task presentation". In another study, teacher attributes refer to "positive attitudes", "continuous teacher training", "involvement in professional growth", and "personal competence" (Swick, 1992). Yet, in a study on the nature and operation of exemplary educational institutions, teacher attributes were cited to be "a caring attitude", "acceptance of student diversity", "creation of positive classroom climate", "high expectations" for teachers themselves and their students, "competence", "stability", "a strong sense of pride" and "active involvement" (by teachers) in student organisations (Wardlow et al., 1992). Finally, teacher attributes may be taken to be teaching skills, knowledge or abilities including "instructional skills", "assessment skills for planning and instruction", "curriculum and instructional planning skills", "classroom organisation skills", "behaviour management skills", "skills in assessing outcomes", "knowledge of transition", ability to work well with people like staff and administration and ability to incorporate vocational-career education in lessons (Mellard et al., 1993).

It is noted that teacher attributes cited in different studies were defined for the needs of the respective study and the exigencies of the time. For the purpose of this study, effective teachers refer to good teachers with knowledge (content and pedagogical), attributes and positive attitudes towards students and the profession, and teaching skills or competencies. This study will mainly report on the Singaporean teachers' attributes and attitudes in the primary classroom today. It aims to document the less studied but rather important aspect of a teacher, namely, his/her personal attributes and attitudes. In a recent study of helpful acts and kindness to strangers by Levine (2003), Singapore was placed twenty-first in a list of 23 countries in the world. Teacher attributes in this study refers to the personal characteristics and dispositions including intellectual, moral-spiritual, emotional dispositions, competencies, skills and learning tendencies in coping with the current and evolving education policies and systems. Three samples of teachers, namely those teaching in the mainstream programme, Special Education programme and Gifted Education Programme were compared for their attributes and attitude towards the profession and policy changes by the Ministry of Education. Gender differences with respect to teacher attributes were examined. Any possible associations of teacher attributes to age and years of teaching experience were also investigated.

#### Method

### Subjects

A total of 240 primary teachers were involved in the study. These were 86 teachers in special education, 47 teachers in the mainstream schools and 107 teachers in nine GEP (Gifted Education Programme) schools. A majority of the teachers (79.2%) were females, only 16.6% were males. The mean age of the teachers was 33.4 years, with the youngest teacher aged 19 and the oldest aged 62. Median age was 31, indicating that most of the teachers were in their late twenties or early thirties. The mean number of years of experience was 8.3, with a minimum of 1 year and a maximum of 43 years of experience in the profession. The median for the years of teaching experience indicates that the samples under study were relatively new teachers (median = 4.2). Table 1 gives a description of the subjects.

#### The Instrument

The Teacher's Attributes Scale (TAS), a self-report checklist newly developed by both researchers, on a 6-point Likert scale with 40 items, was used in this study. Results of factor analysis using Principal Component Analysis indicate a single loading onto 27 items with a reliability coefficient of 0.956 (n=240). The items on TAS report teacher attributes of forbearance, trustworthiness, truthfulness, honesty, love, care, justice, politeness, creativity, courage, respect, selflessness, service, appreciation of student's gifts and talents, flexibility and adjustment to educational policies, willingness to learn new things and skills, belief in use of information and communication technology in class, being aware, respecting and nurturing student's talents, abilities and disabilities, being a life-long learner and finally their belief that educational changes are for the betterment of students. A copy of the 40-item TAS is given in Appendix for reference.

**Table 1.**Statistical description of teachers in the study.

Description	Frequency	Percentage	Mean	Median	Range			
Programme	n = 240	<del></del> -	-					
Special education	86	35.8						
Mainstream	47	19.6						
Gifted	107	44.6						
Gender	n = 230  (nu	n = 230 (number of missing cases = 10)						
Male	40	16.6						
Female	190	79.2						
Missing cases	10	4.2						
Age	n = 219		33.4	31.0	43.0			
Years of experience	n = 228		8.3	4.2	42.0			

#### **Procedure**

The TAS was printed for all three samples of teachers. These teachers were asked to rate themselves on each attribute listed on the TAS. It was distributed to all Special Education teachers attending in-service courses at the National Institute of Education, Singapore. These teachers were currently teaching at the various Special schools. Data from mainstream primary teachers were obtained by distributing copies of the TAS through current in-service teachers to their colleagues when they returned to school. Teachers in nine primary schools hosting the Gifted Education Programme (GEP) received, completed and returned the TAS through the GEP Assistant Director for the primary programme. All data were analysed using SPSS.

#### Results

Mean teacher attribute score was the average score of all reliable items on the TAS for each teacher in the study. This score was first computed using the 27 items with factor loadings greater than 0.5 on the TAS. The results of an independent t-test shows no significant differences in teacher attribute with respect to gender, t=-1.21, ns. Table 2 gives a distribution of mean attribute scores for male and female teachers, as well as teachers in the various streams. Regression analyses using mean teacher attribute scores as criterion variable and age (t=0.70, ns) and years of teaching experience (t=-0.44, ns) as predictor variables yielded no significant results. A one-way ANOVA among the three groups of Special Education teachers, mainstream teachers and teachers in the Gifted Education Programme does not show much difference in mean scores, with teachers in Special Education having a lower mean than the other two groups (F=2.58, ns). Teachers in the mainstream and in the GEP had very similar mean scores (see Table 2).

In order to assess the relative importance that teachers placed on the attributes, a ranking of the sum of raw scores of each of the teacher attributes was conducted with all the teachers in the three streams taken together as a group. This yields

**Table 2.**Table of means for teacher attributes.

	n	Mean	Standard Deviation
Gender	n = 23 (	number o	of missing cases = 10)
Male teachers	40	4.89	0.75
Female teachers	190	5.01	0.49
Streams	n = 240		
Special education	86	4.88	0.66
Mainstream/normal	47	5.04	0.48
Gifted education	107	5.05	0.49

interesting findings shedding light on the value system of the primary teachers in Singapore.

Teacher attributes were first classified into two categories, namely, personal attributes which includes moral values, attitude towards students, learning dispositions, self-knowledge and creativity; and attitude towards new MOE policies and initiatives. This classification is based on logical arbitration. Personal attributes, virtues and the manner or attitude towards the students were placed together in one category as these were pertaining to the self. All MOE related issues and policy changes affecting the teacher were then placed in another category. The teacher attribute which receives the highest raw score is ranked highest and the attribute with the lowest score is ranked last. Top ranking attributes are those attributes affirmed by most teachers who believed that they are in possession of the attribute. The attributes at the bottom of Table 3 are those qualities found to be absent or hardly present in most teachers. A ranking of the personal attributes of the teachers are given in Table 3 and their attitudes towards MOE policies are given in Table 4.

An inspection of Table 3 indicates that primary school teachers in the Singapore sample (n = 240) placed the greatest emphasis on learning and knowledge acquisition. Topping the list of teacher attributes are three characteristics related to the teachers' willingness to learn and commitment to life-long learning themselves.

The next few highest ranking teacher attributes include truthfulness, justice, honesty, integrity and respect for others. This may indicate that the sample

Table 3.

A ranking of personal attributes of primary teachers in Singapore.

Rank ( <i>n</i> = 240)	Teacher's Personal Attributes
1	Belief in life-long learning
2	Willingness to learn from colleagues
3	Self as a life-long learner
4	Truthfullness
5	Justice
6	Honesty
7	Integrity & respect for others
8	Fairmindedness
9	Trustworthiness
10	Self-knowledge of gifts and talents
11	Selflessness
12	Courtesy
13	Being forgiving towards pupils
14	Being caring towards pupils
15	Tolerant & able to overlook the faults of pupils
16	Courage
17	Creativity

Table 4.						
A ranking of primary teachers in Singapore towards MOE policies						

Rank ( $n = 240$ )	Teacher's Attitude Towards MOE Policies
1	Willingness to adjust to MOE initiatives
2	In favour of educational changes for betterment of pupils
3	Believes in gifts, talents, abilities & disabilities in pupils
4	Respects gifts, talents, abilities & disabilities in pupils
5	Is willing to attend courses to keep abreast of latest technology of the time
6	Is aware of existence of multiple intelligences in pupils
7	Attempts at using various teaching approaches to cater to the many intelligences and needs in the pupils
8	Is willing to learn with pupils and to guide them in project work
9	Believes that project work will help children become independent learners
10	Believes that information technology (IT) will help pupils learn better

of teachers under study identifies with the basic virtues of morality such as, truthfulness, fairness and trustworthiness. Lower in the ranking are the teachers' self-knowledge of personal gifts and talents, selflessness and courtesy. Nearer the bottom of the list are the teachers' attitudes or treatment towards pupils under their care. These include the abilities to forgive, to care for, to tolerate and to overlook the faults of pupils.

It is interesting to note that *courage* to face difficulties and challenges, and to try new things, and *creativity*, namely the ability to see old things in new ways and to design original and interdisciplinary lessons are ranked last in the list of teacher attributes. This means that the sample of primary teachers in the study were not very confident with regard to facing challenges and being creative. As this study is on a small scale and sampling was not randomised, this result cannot be generalised to the entire teacher population in Singapore unless the study is rigorously replicated.

Table 4 gives an indication of the teachers' attitude towards MOE policy changes and initiatives. Top on the list are two items related to the teachers' willingness to adjust to educational changes, especially if these are for the betterment of the pupils. Next on the list are the teachers' positive beliefs in "Ability-Driven Education" (Ministry Of Education, 1999) where the teachers indicated their beliefs in the gifts, talents, abilities and disabilities of their pupils.

This is followed by the teachers' willingness to learn, awareness of the existence of multiple intelligences and a willingness to vary teaching approaches to enhance the development of these intelligences. The list concluded with the attitude of teachers towards project work and the use of information technological infrastructure to help pupils learn better. The teachers, though not the majority, expressed a willingness to learn with students and to guide them in project work. Despite the constant reminder of the MOE, IT applications in the classroom remain at the bottom of the list.

#### **Discussion**

Teacher attributes and attitudes may be inborn or naturally endowed, or acquired or learned, or both. The primary school teachers in this study appear to be able to choose to have positive attitudes and desired values or attributes of good teachers, namely those qualities which would eventually lead to a more fulfilling career while attaining the goals of educating the younger generations. As practising in-service teachers, many of them showed an understanding of new educational policies and changes made with the intention of improving the Singapore education system.

Ranking of the teachers indicates that a majority of the teachers in the study possess the learning attitude and a willingness to cope with difficulties accompanying the new policy changes. The positive attitudes of the teachers are reflected in the rather high mean teacher attribute scores for teachers in all three streams. The fact that teachers in Special Education had a slightly, though not significant, lower mean score could be because of the lower pay they receive and the sometimes insurmountable struggle they face when teaching children with special needs. Teachers in the mainstream and in the Gifted Education Programme almost scored a full-score on the 6-point scale. This may either indicate that primary teachers in Singapore are extremely positive in attitude and susceptible to changes in the education system, or, it could also imply that they were merely providing socially desirable responses, assuming that the TAS questionnaire given to them was a ploy used by the MOE to check whether their behaviour was for or against MOE. Alternatively, it could mean that the teachers in the study had positive views of themselves, perceiving and reporting themselves to have very good moral values and integrity. The results of this study need to be considered taking into account the subjectivity involved in all self-reports as in the TAS used in the study. Future studies may like to employ objective tests by an external experimenter – like those used in the Levine (2003) study, or include "lie items" to enhance validity.

It must be noted that the TAS is a self-report checklist. Other personal feelings, stress, teacher overloads and other atypical teacher attributes are yet to be included and examined. When all teacher attributes are documented, they can be regressed against students' attributes to see if positive teacher attributes and attitudes are associated with students' performance and character outcomes. The TAS needs to be correlated with other tests for construct validity.

It is interesting to note that the majority of the primary school teachers in the study have exhibited a willingness to learn and a desire to become life-long learners. This may be an important reason why pupils in Singapore perform well academically on the global scene (Research and Evaluation Branch, 2000). A high proportion of the teachers in the study went on to report having moral qualities of truthfulness, justice and courtesy. Lower ranking attributes were those of being caring and forgiving towards pupils. The two lowest ranking teacher attributes appear to be courage and creativity. Teacher training personnel and MOE officers may

like to check up on the manner in which these two attributes affect the personal development and functions of teachers.

This study may not be too extensive in its scale or scope. However, it is a noteworthy study suited to the exigencies of the time. It documents the quality of teachers in the primary schools in Singapore today in terms of personal attributes and attitudes. It is the teacher with a good character and saintly attributes who is able to exemplify in his actions what he teaches. It is the teacher who constantly learns and improves himself who is able to inspire and share the joy of learning with pupils. The primary school teachers, whether they teach children with special needs, in the gifted stream or in the main stream all appear to have both qualities of knowledge acquisition and virtues.

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# **Appendix**

## Teacher's Attributes Scale

Gender: Female/Male  Course:Years of teach		Age:						
		hir	ıg: _				_	
Pleas	e circle the rating which is closest to your beliefs and funct	ion	s in	sch	100]	.•		
6strongly agree			1 rong sag					
1.	I am gentle. I speak in a soft tone. I am never harsh in my dealings with pupils or colleagues.	6	5	4	3	2	1	
2.	I have an inner sense of peace. I will always have peaceful solutions to any problem that arises in school.	6	5	4	3	2	1	
3.	I am forgiving. I see mistakes as part of learning and believe in changing for the better.	6	5	4	3	2	1	
4.	Moderation is being able to know our limits and set boundaries so that we will have a more balanced life. I am moderate in my school life.	6	5	4	3	2	1	
5.	I am tolerant. I overlook my pupils' faults and accept inter-individual differences.	6	5	4	3	2	1	
6.	I am trustworthy. I am able to keep my promises to my pupils, and am worthy of the trust of the pupils, parents, colleagues and principal(s).	6	5	4	3	2	1	
7.	I am truthful. I admit it when I make a mistake in class.	6	5	4	3	2	1	
8.	I am honest. I do what I know is right and will not try to impress others.	6	5	4	3	2	1	
9.	I am a loving teacher. I show my love with thoughtful actions, kind words and good deeds.	6	5	4	3	2	1	
10.	I am caring. I listen attentively to my pupil's problems without ignoring their feelings.	6	5	4	3	2	1	
11.	I believe in justice. I treat others as I would like them to treat me, namely, with fairness, care and respect.	6	5	4	3	2	1	
12.	I am fair-minded. I investigate the truth before making decisions concerning pupils.	6	5	4	3	2	1	

13. I am full of enthusiasm. I use my imagination to think 6 5 4 1 positively when things go wrong. 14. I greet everyone politely in school. I thank the pupils, 5 4 6 3 colleagues and parents. I make requests instead of demands. 15. I see old things in new ways and design original lessons 6 5 4 3 1 whenever, incorporating music, art, dance and technology. 16. I am aware of my feelings but do not allow them to con- 6 5 4 3 2 1 trol me. I am detached and calm. I do not become upset easily. 17. 5 4 3 I am not afraid to face difficult or challenging situations. 6 I have the courage to try new things. 18. I have a sense of respect for what I believe is right. I keep 5 4 1 my agreements and treat others with respect. 19. 5 4 1 I do not consider myself more important than others. 6 2 I am happy to serve them and think of their needs. 20. I enjoy my work and play. I appreciate the gifts and 6 5 4 3 talents I have and put them in service of the pupils. 21. 5 4 3 1 I am willing to adjust to new educational changes 6 initiated by the Ministry of Education. 22. I am willing to attend courses to learn new skills to keep 6 5 4 1 up with the times. 23. I am willing to learn from my colleagues in areas where 6 5 4 I am lacking. 24. 5 4 1 6 3 I believe that IT will help my students to learn better. 25. 5 1 IT facilitates learning but I have yet to integrate it into 6 4 my lessons. 26. I would like to learn all about project work before 6 5 1 teaching it. 27. I believe project work will help children become inde- 6 5 pendent lessons. 28. 5 4 3 2 1 I find that too much time is spend on project work. 6

29.	I learn together with students as I guide students in their project work.	6	5	4	3	2	1
30.	I believe that each of my students, gifted or disabled, is endowed with talents and faculties.	6	5	4	3	2	1
31.	I attempt to cater to the different abilities and needs of my students by using various teaching approaches.	6	5	4	3	2	1
32.	I am aware of the many intelligences that the child is endowed with.	6	5	4	3	2	1
33.	I respect the gifts, talents and disabilities that the child may have.	6	5	4	3	2	1
34.	I perceive myself continuously learning even when I am older.	6	5	4	3	2	1
35.	I believe that learning does not stop upon graduation from school, college or the university.	6	5	4	3	2	1
36.	I read newspapers.	6	5	4	3	2	1
37.	I read magazines.	6	5	4	3	2	1
38.	I read books.	6	5	4	3	2	1
39.	I access the internet regularly.	6	5	4	3	2	1
40.	I am for educational changes that are for the betterment of our students.	6	5	4	3	2	1

THANK YOU FOR RESPONDING TO OUR QUESTIONNAIRE