Teacher modeling: Its impact on an extensive reading program

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Abstract

This case study investigates whether teachers model reading in 1 Singapore primary school during an exercise called *uninterrupted sustained silent reading* (USSR) carried out in the classroom. Even though reading is an important determinant of a student's growth in language skills and ability, and modeling the act of reading is essential in influencing students, we hypothesize that teachers do not model the act of reading. This study seeks to find out if teachers practice what they preach about reading by making the effort to model the act of reading. This study uses an observation log, questionnaire surveys, and semi-structured interviews. Fifty teachers were observed during USSR daily for 10 weeks and surveyed. Purposeful and systematic samplings were used to identify the teachers for the interviews. The study confirms our hypothesis that even though the teachers believe in the importance of reading and modeling, they do not model reading.

Keywords: extensive reading, teacher modeling, beliefs, observational learning, claims

Children who are introduced to books early are more prone to develop their language skills, and are in turn usually better in reading comprehension compared to children who are non-readers or reluctant readers. The more children read, the more children gain in language ability and reading comprehension. The more children gain in this language ability and reading comprehension, the more children learn. Reading thus provides opportunities for children to develop cognitively and linguistically. One of the fundamental responsibilities of teachers is therefore teaching their students to read. Indubitably, the future success of all students hinges upon their ability to become proficient readers (Moats, 1999).

In today's modern society, especially in text-rich, developed countries, the ability to read well can and does make an enormous difference to one's school performance, career potential and personal success (Kearsley, 2002; Lo Bianco & Freebody, 1997). Children are taught to learn to read so that they can eventually read to learn. Reading is a powerful tool that enables one to acquire knowledge and understanding. A baby practices walking by walking; a swimmer practices swimming by swimming. This principle is universal: One practices something by doing that something.

Reading, like other activities, needs to be practiced. Yet, as research has shown, a proportion of children either come from an environment where reading is not seen as a valued activity (Alexander & Filler, 1976; Saxby, 1997; Telfer & Kann, 1984) or have experienced a lack of success with learning to read well (Lo Bianco & Freebody, 1997; Saxby, 1997). These children become the low-achieving students commonly found in schools. Very often, such students are not "turned onto reading" (Saxby, 1997, p. 215) or "hooked on books" (Pilgreen, 2000 p. 2). They have little love for reading, and they may not be proficient in reading at all. It then becomes a vicious cycle. As they do not read well, they refrain from engaging in any reading activities. Very frequently, these students do not engage in reading during reading periods. The after-effect of this is that their reading ability will make no progress as there is no practice involved.

This research is a case study of one primary school in Singapore. In view of the vast literature and research on the benefits of reading and teacher modeling, this study attempts to find out if teachers model the act of reading during *uninterrupted sustained silent reading* (USSR). Few studies have examined the issue on whether teachers model reading. Most studies have been content to establish the relationship between teacher modeling and student reading (Methe & Hintze, 2003; Pluck, Ghafari, Glynn, & McNaughton, 1984; Wheldall & Entwhistle, 1988; Widdowson, Dixon, & Moore, 1996). Interventionist models have been used to establish that relationship. Thus, teacher modeling was assumed without an investigation. This paper seeks to contribute to this area of research and find out the extent to which teachers model reading. Hence, the primary problem and question in this case study is as follows: To what extent do teachers model the act of reading? The secondary question is this: To what extent do teachers believe in the importance of modeling?

Uninterrupted Sustained Silent Reading (USSR)

Uninterrupted sustained silent reading or USSR (Hunt, 1967) is one of the many names given to individualized extensive reading. Among its other names are free voluntary reading (FVR), self-selected reading, sustained silent reading (SSR), sustained quiet reading time, drop everything and read, and high intensity practice. The seminal article by McCracken (1971) set the main framework that others followed. The objective of USSR, or any of the variant names it is known by, is to develop each student's ability to read silently without interruption for a period of time (McCracken, 1971). Minor distinctions are found in the various reading programs, but by and large the programs all involve students sitting and reading a book during a fixed block of time during school hours.

In Singapore, USSR is part of the schools' extensive reading program or extensive reading and information literacy program (Ministry of Education, 1997). It has been in existence "since its formal inception in the school curriculum way back in the latter half of the 1980s" (Seow, 1999, p. 22).

Research over the past 20 years (Allington, 1977, 1984a; Elley & Mangubhai, 1983; Foertsch, 1990; Stanovich, 1986) have confirmed that regardless of a child's socioeconomic background, sex, race, or nationality, the child who reads the most will read the best, achieve the most and study in school the longest. One of the foremost advocates of USSR (in its FVR variant),

Stephen Krashen, put forth that comprehensible input in the form of reading stimulates language acquisition because reading is primarily responsible for much of our competence in vocabulary, reading comprehension and writing style (Krashen, 1985, 1993, 2004). Researchers over the years (Anderson, Wilson, & Fielding, 1988; Chall, Jacobs & Baldwin, 1990) agree with Krashen that reading is indispensable for one's linguistic growth. Hence, the use of USSR is to institute this reading practice for schools to reap the benefits accrued from reading.

The Effect of Teacher Modeling

Modeling refers to the patterning of thoughts, beliefs, strategies, and actions after those displayed by one or more models—usually teachers or parents who explain and demonstrate skills (Schunk & Zimmerman, 1997). The role of the teacher is paramount. Research suggests that the frequency with which students read in and out of school depends upon the priority classroom teachers give to independent reading (Anderson et al., 1988).

In Singapore, the most common extensive reading program among schools is the USSR. One of the most effective, if not the most effective, ways to motivate the pupils to read during USSR is teacher modeling. In the seminal article on teacher modeling, McCracken and McCracken (1978) underscored the importance of the teacher as a model: "We came to the key notion that all adults in the classroom have to read or SSR does not work" (p. 406).

In his social learning studies, Bandura (1969, 1977, 1986) showed the importance of social behavior. A child will follow the beliefs and behaviors of an adult perceived to be important. Consequently, any activity that that particular adult performs, the child responds with a desire to do it as well.

Consciously or not, if teachers present the lesson or activity with enthusiasm, suggesting that it is interesting, important and worthwhile, students are more likely to adopt the same attitude (Wlodkowski, 1978; Bucher, 1997; Rose, 2004). Affirming this, Campbell (1989) found that children spent more time reading if the teacher also read. When children see their teachers enjoy reading during USSR, it reinforces the idea that reading is valuable and important.

Empirical studies by Methe and Hintze (2003), Pluck et al. (1984), Wheldall and Entwhistle (1988), and Widdowson et al. (1996) demonstrated unanimously that when the teacher models reading for the students, the students' on-task reading naturally increases. These studies are important as they adopted the reversal design, whereby the teacher stopped modeling for a period of time and then modeled again after that period of time. The pupils' on-task reading correlated positively and directly with the teacher's action.

Not only is teacher modeling important in itself, it proves to be even more important to low-achieving readers. Few of such readers have reading models outside of schools (Jones & Wills, 2004). Therefore, there is greater need for these students to have appropriate reading role models in schools. Pluck et al. (1984) showed that the gains made by the low-achieving readers under concurrent modeling were greater than those made by the high-achieving readers. High-achieving readers already have a reading habit. Teacher- or adult-modeling reading has less

impact on good readers compared to readers who do not have a reading habit. Low-achieving readers need to be convinced of the importance of reading; they do not read and hence they are the ones who require convincing. Thus, teacher modeling of reading has a positive effect on student learning.

In a study conducted more than a decade after the study by Pluck et al. (1984), Widdowson et al. (1996) found that concurrent modeling clearly increased the on-task reading behavior of both low and average-achieving readers during USSR. The on-task behavior for the low-achievers increased to nearly that found for the high-achieving readers at baseline. Both these studies demonstrate that teacher modeling is indispensable in motivating low-achieving readers. Therefore, to help students to become highly engaged readers, teachers themselves need to be highly engaged (Guthrie, Dreher & Baker, 2000). Garrett (2002), in his article delineating the affective and cognitive factors impacting students' reading attitudes and consequent reading behavior, found that "teachers and principals have an enormous impact on the attitudes children develop toward reading" (p. 21). Generally, getting the child to mimic the modeling teacher is more effective than preaching to the child. This in essence is the principle underlying observational learning. Thus, the worry is this: If the teacher does not read, how can it then be important to the students, particularly the low-achieving ones?

Primary Education in Singapore

In Singapore, primary education is compulsory, and consists of 6 years. Seven-year-olds are taught basic numeracy and literacy in English at Primary One and these are developed incrementally over the years. At the end of the 6 years of education, the students take the national summative assessment—Primary Six Leaving Examination (PSLE). The scores that the students obtain in this national examination will determine the secondary education streams they will be placed in and the secondary schools they will be posted to.

Although English is the medium of instruction, it may not be the home language for many primary school students. Some common home languages for a child living in Singapore, a multiracial country, are Mandarin, Malay, Tamil, Hokkien, Cantonese, and even Singlish (a colloquial variety of English). It is unsurprising to find a child who speaks Mandarin at home, Singlish in school and struggles to use Standard Singapore English during lessons. Hence, one may conclude that English is more of a foreign language than a second language for such pupils.

USSR in Singapore Schools

In Singapore, the USSR program has been "implemented by almost all primary and secondary schools" (Mok, 1994, p. 83) to promote the reading habit. Time is set aside either during the English Language curriculum or before school curriculum hours for this program. The teachers and students are, in general, free to choose their reading materials, whether fiction or non-fiction.

The widespread implementation of USSR is due to the initial implementation and success of two programs: Reading and English Acquisition Program (REAP) for primary schools from 1985–

1989 (Elley, 1991) and, almost concurrently, the Project to Assist Selected Schools in English Skills (PASSES) for secondary schools which was implemented in 40 of the weakest secondary schools in the Singapore school system. PASSES ran from 1985 to 1990. The aim of both programs was to improve the level of literacy in Singapore and the promotion of enjoyment in reading and learning (Ng, 1987). In both REAP and PASSES, extensive reading was one of the major components. Vast improvements were shown by the students in the REAP in terms of reading comprehension, vocabulary, grammar and writing as well as in the international survey of reading-literacy of 32 countries by the International Association for the Evaluation of Educational Achievement (Elley, 1992). Similarly, improvements were demonstrated at the General Cambridge Examinations (Ordinary Levels). The pass rates in the English-language paper of the secondary students involved in PASSES were raised above the national average (Davis, 1995). These results proved the efficacy of implementing a reading program. Thus USSR was adopted to provide time for the students to practice and develop their reading skills (Davis, 1995; Ministry of Education, 1997; Seow, 1999).

This program was also designed for teachers to demonstrate a reading model for the students (Marshall, 2002; Mok, 1994; Pilgreen, 2000; Seow, 1999; Trelease, 2001). In order for the students to practice reading, they must have the desire to do so. A tool by itself is useless. It is therefore a priority for the schools and teachers to create that desire—to fan the flames of desire to read. Teacher modeling of the act of reading is a most efficacious *fan*.

Benefits of Reading

Gains in Vocabulary

The academic world is filled with words. This body of words that the students must know in order to gain access to increasingly demanding texts through the years is what is referred to in this study as *vocabulary*. Vocabulary is shown to be strongly linked to academic success (Anderson & Freebody, 1981; Baumann & Kameenui, 1991; Chall et al., 1990). Hence, the greater one's range of vocabulary, the greater one's access to the world of words.

According to Anderson and Nagy (1992), students add 2,000–3,000 words a year to their reading vocabularies. This was confirmed by Anglin (1993) and backed by previous research (Beck & McKeown, 1991; Nagy & Herman, 1987; White, Graves, & Slater, 1990). Furthermore, studies have related the volume of students' reading to their gain in vocabulary knowledge (Cunningham & Stanovich, 1991; Fielding, Wilson, & Anderson, 1986).

A person acquires his/her vocabulary not through memorization, but by accruing fragments of word knowledge for each of the thousands of words that he or she encounters every day (Hirsch, 2003; West, Stanovich, & Mitchell, 1993). The word becomes learnt, even without any explicit teaching (McKeown, Beck, Omason, & Pople, 1985; Stahl, 1991). This can only be achieved through reading. Studies have demonstrated that through reading interesting texts, students learn new vocabulary and review old one (Coady, 1997; Hirsch, 2003).

Vocabulary learning is a gradual process of encountering new words that add to and reinforce the

small amounts of information gained from previous meetings. If the amount of words experienced were not reinforced soon after by another encounter, the learning will be lost (Nation, 1997). Increasing contact with the word through reading leads to familiarity, which in turn leads to automaticity. It then becomes a sight word. This is verified by Day and Bamford (1998). The development of a large sight vocabulary is usefully interpreted as the over-learning of words to the point that they are automatically recognized in print. It is a gradual and long process which cannot be acquired in a day or two but needs time and practice.

Undeniably, vocabulary increases as a result of children's reading (Dickinson & Smith, 1994; Morrow, Pressley, Smith, & Smith, 1997; Robbins & Ehri, 1994; Rosenhouse, Feitelson, Kita, & Goldstein, 1997). In particular, Wu and Samuels (2004) found in their study that poor readers showed more gains in vocabulary than good readers. Teachers modeling reading can create an impact on weaker students acquiring more vocabulary.

Gains in Reading Comprehension

With a vast vocabulary, reading comprehension is thus facilitated. Vocabulary experts agree that adequate reading comprehension depends on a person already knowing between 90 and 95 per cent of the words in a text (Cunningham & Stanovich, 1997; Nagy & Scott, 2000; Stanovich & Cunningham, 1992 & 1993). It is the sheer volume of reading that propels one's cognitive understanding of the words encountered and one's comprehension of the written word (Anderson et al., 1988; Elley, 1991; Fader, 1976). "Automaticity of 'bottom-up' (word recognition) processes upon which comprehension depends is a consequence of practice" (Bamford & Day, 1997, p. 7).

An experimental study by Pilgreen and Krashen (1993) involving 125 high school students of English as a second language (ESL), who participated in a 16-week SSR program showed remarkable gains in reading comprehension. The large gains suggest that reading is an effective means of promoting literacy development with ESL students as well. In another experimental study done by Robb and Susser (1989) in Japan involving 125 freshmen English majors, it was found that extensive reading may at least be as effective as skills-building, but with an important difference—the process was more interesting. This showed that if both skill-building and extensive reading could lead to an improvement in comprehension, it might be better to use extensive reading as it piques the students' interest and in so doing, creates a better emotional and sustainable response. Finally, Wu and Samuels (2004) reported findings of poor readers showing greater gains in reading comprehension due to extensive reading.

Gains in Writing

For one to be able to write, one must first be able to read and to comprehend one's reading material. Reading helps by introducing and giving exposure to writing conventions and genres. As one assimilates the patterns and nuances of the writing styles of books, one is able to repeat them in one's own writing. Eckhoff (1983) reported how reading affects children's writing, showing that children mimic the forms of writing that they are exposed to after they read.

In a study done by Hedgcock and Atkinson (1993), it was found that reading was significantly

related to the writing proficiency of first-language learners. A similar result by Constantino (1995) corroborates this finding. It was found that as ESL students read more, and wrote about their reading, their writing increased in length and complexity. Thus, reading can help both first and second language learners of English in their writing proficiency. These studies indicated an interactive relationship between reading and writing: Knowledge gained in one can often be transferred to the other.

These studies demonstrate the importance of reading—how it benefits the child in vocabulary acquisition, reading comprehension and writing. Conversely, if the child does not read, for one reason or another, what will be the consequences?

The Matthew Effect

A survey done by Clay (1993) showed that when children at 9 years of age do not become competent readers, it would be very difficult for them to catch up. Furthermore, it also showed that when one is a poor reader in the first grade, one will most likely be a poor reader at the fourth grade. This is alarming since reading comprehension is directly affected here. In the span of the first four years of a child's primary education, a vast amount of reading is required in all subjects. If one cannot comprehend what is written or read in schools, then one would be severely disadvantaged in every sense of the word. This was confirmed by Juel (1994) in her study of one elementary school in Austin, Texas. She did a 4-year longitudinal study of the literacy development of six children: three with literacy problems and three with successful literacy development. She found that the students who read well have a significant advantage over those who did not, and those who were not reading at grade level by the third grade never gained the skills to acquire at grade level performance. Similarly, in the studies investigated by Trelease (2001), it showed that reading can be the most important vocabulary builder when a child reaches third grade. If little or no reading is done prior to and during third grade, the child is disadvantaged. This is what then came to be known as the Matthew Effect.

The Matthew Effect was first coined by Walberg and Tsai (1983) and affirmed by Stanovich (1986). It essentially means that when one is competent in reading, one learns more and hence grows richer in knowledge and proficiency. Conversely, when one is not competent in reading, one gets poorer in one's language proficiency through the years. This *rich get richer and poor get poorer* concept was clearly evident in two prominent studies.

Anderson et al. (1988) and Nagy and Anderson (1984) calculated the number of words read by children. In both these studies, the difference in the amount read by the different groups of readers was quite significant. Even though the numbers arrived at by both studies are different (which may be due to the fact that one study took into account the reading done in school and the other did not), the trend revealed was the same: The higher-ability reader read more and encountered more words than the lower-ability reader. This would mean a great differential in the vocabulary acquired. For one to have read so many words on a regular basis, one's knowledge and familiarity of words will be far greater compared to one who has read very little. Torgesen, Rashotte, and Alexander (2001) affirmed that lost opportunities make it very difficult for the students to acquire average levels of competence.

The studies by Francis, Shaywitz, Stuebing, Shaywitz, and Fletcher (1996), Juel (1988), and Torgesen and Burgess (1998) even went so far as to declare that poor readers at the end of first grade almost never acquire average level reading skills by the end of elementary school. Chall, Jacobs, and Baldwin (1990) delineated this claim in detail. Their results suggest that once a child falls behind in reading, writing or language, deceleration is likely to increase with each succeeding grade. The gap between the higher-ability reader and the lower-ability reader widens due to the cumulative vocabulary deficits over the years. The research by Cunningham and Stanovich (1997), Stanovich and Cunningham (1992), and Stanovich, West, and Harrison (1995) bear witness to the fact that the lack of exposure to print causes the child to be less skilled at the initial acquisition process, to be less involved in reading-related activities, and to be less motivated to read. This thus creates a spiral effect of poor-get-poorer. In order to help such students gain a greater proficiency in the English language and halt the Matthew Effect, teachers must guide these students to invest more of their time and energy on reading.

Hence, the research questions concern the extent to which teachers model the act of reading and the extent to which teachers believe in the importance of modeling.

Method

A questionnaire was designed for the teachers in the study. This was pilot tested with three teachers from another primary school and two postgraduate students (who are also primary school teachers concurrently pursuing their master's degree). The five were asked to fill in their responses as honestly as possible. They were also asked for their feedback on whether the questionnaire items were clear enough or if the questions were misleading. In all five cases, no clarification was required. The two questionnaire items were hence used as they had been originally designed.

The interview questions for the teachers were also pilot tested with the same aforementioned teachers. Amendments such as changing the word *people* to *adults* and using the *Wh*-question word of *why* instead of *why not* were made to ensure clarity of the questions.

A mixed design is used in this study because a quantitative method allows data to be collected from a large number of people and results to be generalized, while a qualitative method allows a more in-depth exploration of a few individuals. In the school that participated in this study, all 50 teachers in the morning session (0710 hours–1250 hours) were observed during the silent reading program held in the mornings from 0710 hours - 0725 hours in the school courtyard. They taught classes of Primary Two, Four, and Six. The students' ages ranged from 8 to 12. Of these 50 teachers, 3 were heads of department (HOD), and 9 were level heads (LH), assistants to the HODs. All were required to be present for USSR and to model reading.

Ten teachers were selected for the interview. Purposeful sampling was used for six of the teachers. Purposeful sampling is based on a sample of information-rich cases which are studied in depth. All members of the teacher population were not assumed to be equivalent data sources because some held administrative designations (HODs & LHs) whereas others did not, and some

taught students at the higher end of the ability spectrum while some taught at the lower end. Hence, those selected for this group were those perceived to be information-rich cases (Wiersma & Jurs, 2005).

The six teachers selected were an HOD, two LHs, and the three form teachers of the lowest-achieving classes in each level (Primary Two, Four and Six). The HOD was purposefully selected because she was in the management structure of the school. She provided a perspective from the management. The two LHs were selected because they were in the lower middle-management; they provided the link between the teachers and the school management. The selection of the school leaders' perspectives is to find out how much importance is accorded to reading through the kind of support they gave.

The other three teachers were teachers of the low-achieving classes from the three levels, i.e., they taught the weakest classes in the morning session. These three teachers provided a perspective that came from teaching students who were the most reluctant readers of each level. Studies have shown that teacher-modeling impacts low-achieving readers more than high-achieving ones. This is the reason why these three teachers were chosen.

The second type of sampling used in this study was systematic sampling. Four teachers were selected through this type of sampling. Systematic sampling was done as it is more precise than random sampling. It is also more evenly spread over the sample population. Each teacher was given a number. A start point was chosen randomly from the numbers as a randomized start ensured that it is a chance selection process (Patton, 1987). The sampling ratio was calculated (see Appendix A) and a teacher was thus selected at every 11th teacher out of 44 teachers.

Procedure of USSR

All the teachers in the school were required to attend and participate in the USSR program at the beginning of the day. This silent reading program was conducted from 0710 hours–0725 hours. The students assembled at the school courtyard in their designated class assembly areas by 0710 hours. They began their silent reading at the sound of the pre-programmed chime at 0710 hours. Usually, the discipline mistress (DM) would be present at the front of the courtyard, on an elevated platform, to verbally remind the students to read if they did not heed the chime. The close of the USSR period was indicated by the DM telling the school to close your books. The timing of this signal varied (usually shorter than specified), even though the program was officially allotted 15 minutes. The way USSR was carried out in the participating school is similar to the procedure adopted by numerous other primary schools in Singapore.

Observation Procedure

The teachers in the sample were observed daily on a two-part basis—the latter five weeks of Semester 1 (25th April–27th May) and the first five weeks of Semester 2 (27th June–29th July). Semester 1 comprised of 20 weeks of teaching and one 1-week term break in the middle of the 20 weeks. This term break was more for the students rather than the teachers. At the close of Semester 1, there was a 3-week holiday for the teachers. The purpose of the mid-year holiday is to grant rest for both the students and teachers, and a period of reflection for the teachers.

The two-part observation period was chosen to ascertain if there were any significant difference in teacher modeling after teaching for 15 weeks in Semester 1 (fatigue) and after a mid-year break (rest).

Continuous observation was done from 0710 hours to 0725 hours (the entire duration of USSR). So as to prevent a Hawthorne Effect (i.e., behavior that might have changed as a result of the participants knowing they are being observed; see Mackey & Gass, 2005, p.187), the researcher observed the conduct of the USSR program as a participant-observer. The four elements in Bruyn's (1966) phenomenological approach are thus utilized: awareness of time, physical environment, contrasting experiences, and social openings and barriers. Since the researcher was a member of the teaching staff and a colleague of the participants, his presence was unlikely to have caused any discomfort to the participants. As such, the observation was unobtrusive.

Observation of the number of teachers who were modeling the activity of reading was done at a 5-minute interval. Hence, there were 4 observations (at 0710, 0715, 0720, & 0725 hours) daily. At each observation, the researcher did a count through a circular visual sweep of the courtyard, starting and ending at the position of the elevated platform. Two sweeps were done at every observation to verify the numbers noted. To ensure reliability of the observation, an observation template was used (see Appendix B).

Questionnaire Procedure

The questionnaire (Appendix C) was given personally to the teachers in the staff room by the researcher. The questionnaire was given individually so as to prevent any discussion or comparison of answers, and to avert any type of peer influence or conformity. Thirty-eight teachers completed and handed in their questionnaire surveys within 5 minutes. Seven teachers handed in within the hour and five teachers handed in the following day. All the teachers were assured of the confidentiality of their responses. There was a 100% response.

Semi-Structured Interview Procedure

The interviews (Appendix D) with the teachers were conducted in the Staff Lounge, which is seldom used. It offers quiet and solitude—away from the classrooms and the Staff Common Room. All the interviews were tape recorded and later transcribed. The interviews were conducted after all the observations were completed. This was done to prevent the Hawthorne effect of the teachers deliberately and consciously modeling reading during USSR if they were to find out the intent of the research while the observations were going on.

Each interview took about 12–15 minutes. By using a semi-structured interview format, answers to the interview questions could be probed. A deeper understanding of the answers and how the answers came to be realized was thus achieved. Furthermore, such a format could also clarify any misunderstanding and confusion the interviewees might have (Babbie, 2005). Finally, observation of the interviewees' body language during the interviews can be an asset in the analysis of their responses.

To summarize, the instruments were planned and designed in the month of April and pilot-tested in the month of May. Data collection commenced formally in the month of May. Observations were made in the months of May and July. The survey was conducted only after all the necessary observations had been made. The interviews were conducted in mid-August. The analysis of data was done after all the data had been compiled by end-August.

Results and Discussion

The observational data was analyzed using a table and a graph, so that the data could be correlated and corroborated with the teachers' expressed beliefs in the questionnaire and interviews.

The researcher conducted 10 weeks of observation—the latter 5 weeks of Semester 1 and the first 5 weeks of Semester 2. The mean percentage figures, which were used as the raw averages, were less than 1 teacher, thus rendering the raw figures meaningless (i.e., 0.1 teacher). The mean percentage was calculated with the base number of 50—the number of teachers observed, excluding the principal and vice-principals. The mean percentage of teachers who read at each time-interval per week is shown in Table 1 below. The raw figures for each week, at each particular time-interval, were converted to percentages before the mean was arrived at.

Table 1. *Mean percentage of teachers who read at each time-interval per week*

	Semester 1 (Term 2)					Semester 2 (Term 3)					Mean percentage of 10 weeks (mean no. of teachers)
	Weeks 16–20 (weeks 6–10)					Weeks 1–5 (weeks 1–5)					
Time	6	7	8	9	10	1	2	3	4	5	
0710	0.5	0.5	0	0	0	0	0	0	0	0	0.1 (0.1)
0715	1.5	1.5	0	1	0	3	0	0.5	1	0.67	0.9 (0.45)
0720	2	1.5	2.67	1	0.5	8	3	1	1	1.33	2.2 (1.1)

As can be seen from Table 1, the percentage number of teachers who read in the time-interval of 0710 hours is almost zero or zero. This is the time when USSR begins. Yet, the teachers were not seen to be reading.

During the time-intervals of 0715 hours and 0720 hours, the mean percentage of teachers for the 10 weeks was 0.9% and 2.2%. Out of 50 teachers, this translated to an average of 0.45 teacher and 1.1 teacher modeling reading respectively for the whole of the 10 weeks under observation.

In looking at the data from a day-to-day perspective, it can be seen that the percentage of teachers who model reading per day is slightly higher but not significantly. This data is shown in Table 2.

As shown by the figures, the mean percentages of each day, for the 10 weeks, did not even reach 6% (i.e., 3 teachers). An anomaly was shown on the Monday of week 1 in Term 3—14%. It could be surmised from the date that it was due to the fact that that was the first day of school after the 1-month June holiday, and hence the teachers were more willing to make an effort to read, before other demands took over.

Table 2. *Percentage of teachers who model reading each day*

Day	Semester 1 (Term 2) Weeks 16–20 (weeks 6–10)					Semester 2 (Term 3) Weeks 1–5 (weeks 1–5)					Mean percentage of 10 weeks (mean no. of teachers)
	6	7	8	9	10	1	2	3	4	5	
Monday	2	-	6	-	-	14	-	0	4	2	4.67 (2.3)
Tuesday	2	8	2	2	2	2	0	0	-	-	2.25 (1.1)
Wednesday	4	0	-	0	0	-	4	2	2	0	1.5 (0.8)
Thursday	2	2	-	-	0	2	0	2	0	2	1.25 (0.6)
Friday	-	0	2	-	0	6	2	-	2	0	1.7 (0.9)

Other than that anomalous percentage, the rest of the percentages did not hover beyond 6%, thus demonstrating that the usual number of teachers who model reading did not exceed three at any one time. It must be noted that the school in question has a number of other programs running during this USSR program, notably the oral proficiency (for English and mother tongue), the mathematics remedial, and the trim and fit (TAF) programs. These programs were held in classrooms, the school canteen or the school field, away from the courtyard where the rest of the school had USSR.

All the above programs started at 0700 hours. The oral proficiency program and TAF morning run ended at 0720 hours and the Mathematics remedial program at 0725 hours. On many occasions, they ended only when the National Anthem was being sung (i.e., USSR has already ended). Thus, these programs effectively excluded the teachers and students from participating in USSR. This therefore translated to a sizeable number of teachers and students not participating in USSR (indicated in Table 3).

Table 3. *Number of teachers and students involved in the morning programs*

	Oral proficiency program		Mathematics remedial program		TAF morning run		Total number involved	
	Teachers	Students	Teachers	Students	Teachers	Students	Teachers	Students
Monday	23	177	8	66	4	80	35	323
Tuesday	23	177			2	80	25	257
Wednesday	12	55	8	66	3	80	23	201
Thursday	3	30			5	80	8	110
Friday	3	30	8	66	6	80	17	176

But USSR is for everyone. Teachers are needed to motivate the students by modeling, and students need to get into the habit of reading daily, especially the low achieving ones. Yet, this concept of everyone reading at the same time was not emphasized. On Monday alone, the number of teachers who were utilized elsewhere was a sizeable 35. More than half of the teaching staff was taken away from the USSR program. This consequentially took away a substantial number of teachers who could model the act of reading. On average, 21.6 teachers were taken away from modeling everyday.

As can be seen from the findings in Tables 1–3 above, the observation indicated that the teachers in the participating school do not model to a large extent. The percentage of teachers who model ranges from 1.25% to 4.67% on a day to day basis. This indicates that only a minority of teachers

model reading during USSR. To lend weight to the validity of this finding, the observed data was corroborated with what the teachers themselves said on whether they did or did not model reading.

As mentioned earlier, 10 teachers were selected: 6 through random sampling and 4 through systematic sampling. In the survey conducted, the first question enquired the teachers' perception of the reasons behind USSR. Using content analysis, words belonging to the same semantic field such as *nurture*, *encourage*, *cultivate*, *inculcate* and *motivate* were found to have 27 occurrences. These verbs have a semantic value of *promoting*. These verbs were used by the teachers to signify that USSR is used to promote the activity of reading.

The noun phrase *reading habit* alone garnered 16 occurrences. This showed that the teachers believed that the extensive reading program of USSR inculcated a habit for reading in the students; a habit that would positively translate to an improvement in *language* and *ability*, and an increase in *knowledge*. These three nouns listed by the teachers as a consequence of reading generated 17 occurrences altogether. Furthermore, they also believed that this habit would translate to positive feelings, inherent in the words such as *love*, *interest* and *enjoy*. These three emotive words occurred 9 times altogether in the survey responses. From this content analysis, it is shown that the teachers in general believe that silent reading is a beneficial program—a program that has the ability to promote reading, develop a reading habit and the students' mastery of the English language, and help inculcate a liking for reading.

To find out if the teachers believed in the practice of modeling, content analysis of the survey responses was again used. When asked to complete the sentence *I model/do not model reading during USSR because* (see Appendix C), words such as *role model*, *example* and *preach* occurred 20 times. To quote from five different teachers' survey responses:

> Teacher 1: Reading together would send a strong and clear message that reading is to be taken seriously.

> Teacher 2: Modeling sends a strong message to take reading during USSR seriously.

> Teacher 3: It will be easier to convince pupils to read if they see their teachers reading.

> Teacher 4: Pupils do things by examples and by being there reading with them will encourage them to read.

> Teacher 5: If I were to do otherwise, it may create a disbelief of reading among students.

A quote (literally translated) from a Chinese language teacher sums it all up: "Verbal teaching cannot be compared to body teaching" (i.e., action speaks louder than words).

The survey showed clearly that there were a sizeable number of teachers who truly believe in the importance of reading and role-modeling.

In the survey, the second question required the teachers to state whether they modeled the act of reading during USSR. 27 teachers stated that they did. Seven of these teachers qualified their

responses with *sometimes* and *usually*. Even if these seven responses were disregarded, that would mean 20 teachers were modeling the act of reading during USSR. This would translate to 40% of the teachers. Yet, in comparing this stated figure with that of the figures daily observed and recorded (see Table 3), the difference is vast. The highest mean number of teachers reading per day is 2.3 teachers on Mondays. This is almost 10 times less than the stated figure of 20. Even the highest percentage recorded (14% from Table 4.4) 26% less than that stated. This implies that what the teachers claimed they did was in fact not the reality. From the results shown, it seems that the teachers in general did not model even though a substantial number claimed that they did.

Even though there were many teachers who claimed they believed in the importance of reading and in modeling the act of it, the numbers who did read did not tally at all. If a particular teacher does not live up to the values and ethos of their school, subject or educational message, their power as a role model is largely diminished. Rejection of the entire message and program is also risked if students see even the slightest inconsistencies in the role model (Rose, 2004).

To corroborate with what the observation and the survey revealed, the teachers were asked during the interviews what they usually did during USSR. Below are some of their responses:

> Teacher B: Morning Run. If I'm not, I'm guilty of just standing there and making sure my pupils read.
>
> Teacher D: Well, the thing is, if I'm not involved in other activities in the morning, then I'll be reading. As it is, I'm not reading.
>
> Teacher F: I am involved in morning duty and program so . . .
>
> Teacher J: . . . especially after the morning run, I don't bring along my book, so I just sit and stare.

Four of the 10 teachers interviewed confessed imperturbably that they do not read during USSR. All four attributed it to their involvement in the morning programs or duties.

The teachers were also asked what they thought was the teacher's role during USSR time. Unanimously, their responses were the same—modeling. Below are some of the responses given verbatim.

> Teacher A: Model. Model! To show the pupils what is supposed to be done at that time. I think that teachers are a big influence. A very big influence on the children. They come to school for that 5 hours, they see what their teachers does (sic), and the teacher should set an example for the children to model after.
>
> Teacher D: All the teachers should also be reading as a role model.
>
> Teacher E: They have to take it very seriously. They themselves should be good role models. They should also read during this period so that the children will also take it seriously. They see that the teachers are reading so they would think it's important.

Teacher H: To read and to be a role model. Pupils actually look at the teacher to see if the teacher is reading. Teacher must demonstrate.

Teacher I: Actually, to show a good example. So should actually sit down and read together with them. To actually motivate them and to show them the benefits of reading. That's actually our role.

Teacher J: To model who or what? Just like a child and parent, the child actually model what parents are doing. Our own kids in school would see the teachers actually reading, they'd actually kind of like rethink, you know, the importance of reading.

As can be seen from the aforementioned quotes, all 10 teachers believed in the importance of modeling, but only 4 were honest to admit that they did not do so. The teachers do not model to a very large extent and one of the possible reasons could be the number of programs they were involved in the mornings. Based on the survey conducted, of the 23 who stated they do not model, 18 put down *duties*, *programs*, and *lessons* as the reason why they do not read during USSR. Even though a sizeable number of teachers believe in the importance of teacher modeling as well as that of reading, they did not consciously portray this behavior and habit as important during the most visible and obvious reading activity in school—USSR.

The stated claims and the positive responses to the importance of teacher modeling and reading, through both the survey and the interviews, demonstrated that the teachers believed in the validity of the motivational aspect of teacher modeling as well as that of the benefits accrued from extensive reading. Yet, there was no correlation between the beliefs of the teachers and their actions.

Implications

Research (Marshall, 2002; Trelease, 2001; Pilgreen, 2000; Wheldal & Entwhistle, 1988) has shown what an important impact the teachers have on students. This supports Smith's (1988) assertion that "children will endeavor to understand and engage in anything they see adults doing, provided the adults demonstrate enjoyment and satisfaction doing it" (p. 201).

In Singapore, the importance of reading was acknowledged nationwide through the launching of a nationwide reading campaign, "READ! Singapore," on 24th of May 2004 by the then Minister of Education, Mr. Tharman Shanmugaratnam. Activities like "READ! Singapore Marathon" and "READ! Singapore Day" were organized to promote and highlight the importance of lifelong reading and learning. In addition to that, the Ministry of Education (Singapore) has also affirmed the idea that the teachers are important role models. In the highest accolade conferred on teachers by the ministry, the President's Award For Teachers 2005, the criteria made known to the public was that teachers "must also be role models of continuous learning and exemplars to both their students and peers in word and deed" (Ministry of Education, 2005). The importance of both reading and modeling has been acknowledged by the Ministry of Education (MOE). Yet, these emphases may not have percolated down to the schools enough.

To claim and not to model. The results of this study indicated that there existed a negative relationship between what the teachers claimed they did and what they actually did. The teachers who claimed that they read were in fact not reading. There was clearly no teacher model for the students in the morning session. The answer to the primary research question ("Do teachers model the act of reading?") is that the teachers did not model reading for the students. They do not model the act of reading, but as to whether they believe in the act of modeling, the teachers' comments in the next section may prove to be enlightening in answering the secondary question ("To what extent do teachers believe in the importance of modeling?").

To believe and not to act. Before proceeding, it is useful and prudent to hear from the teachers themselves concerning what they think of USSR.

> Teacher A: Our school? I don't really think it was very effective. There're too many things (programs) going on in the morning.

> Teacher B: They're pulling out the kids who need it most, they're the weaker kids, for other programs, for Maths all that.

> Teacher D: Because there's a lot of activities going on at the same time.

> Teacher F: I am involved in morning duty and program, so . . .

> Teacher J: Like especially after the morning run, I don't bring along my book, so I just sit and stare.

These comments by five of the interviewed teachers sum up quite succinctly what is emphasized in the school—enrichment and remedial programs. Among the 23 teachers who stated that they do not model, 18 of them stated *duties*, *programs*, and *lessons* as the reasons for not doing so. Taking the time to model the act of reading prevents them from carrying out these duties, and they may be seen as insubordinate if they fail to carry them out just so they can model reading. The high emphasis placed on academic results by the school seems to have pervaded the school's culture. As such, reading has been de-emphasized unknowingly. The teachers might have been caught up with this *result-oriented* pursuit and hence might have felt that reading as a pleasurable activity is out of place in such a culture, such a system. Subconsciously, they know it is important. This subconsciousness might have led them to express their views and beliefs that reading and modeling are important as can be seen from what they said.

> Teacher A: Model. Model! To show the pupils what is supposed to be done at that time. I think that teachers are a big influence. A very big influence on the children. They come to school for that 5 hours, they see what their teachers does (sic) and the teacher should set an example for the children to model after.

> Teacher C: Of course the teachers should try to model reading . . .

> Teacher D: All the teachers should also be reading as a role model.

> Teacher E: They have to take it very seriously. They themselves should be good role models. They should also read during this period so that the children will also take it seriously. They see that the teachers are reading so they would think it's important.

> Teacher G: Objectively, we actually want our pupils to look at us, and mimic or model. We're supposed to model reading, right. We're supposed to set the standard for them.

> Teacher H: To read and to be a role model. Pupils actually look at the teacher to see if the teacher is reading. Teacher must demonstrate.

This same subconsciousness might have led them to make the claim that they are indeed modeling even though they were evidently not.

The answer to the question "To what extent do teachers believe in the importance of modeling?" is that the teachers do believe in the importance of modeling. The implication here is that in spite of their personal pedagogical beliefs, teachers are not modeling the activity which is essential for the growth of the school's and the students' reading.

Limitations

One factor that may have contributed to the findings of the study was the time and place where USSR was conducted in the school. Results may differ if USSR was conducted in the classrooms and at a different time. However, finding a school that adopts a different practice may be difficult as most schools in Singapore conduct USSR in the morning before assembly. Secondly, more teachers could have been interviewed. While the choice of the three teachers from the low ability classes was deliberate because studies have shown that with teacher–modeling, low-achieving readers have made more gains than high-achieving students, it may not have provided balanced perspectives. Hence, teachers from middle ability and even high ability classes should also have been included in the interviews. However, since this is a small-scale, qualitative study involving 10 teachers' comments and opinions, we have decided to report the results as they are first, before developing this research on a wider scale as described.

In addition, due to the heavy involvement in school programs coupled with the regular teaching schedule, fatigue might have set in. Possibly, this fatigue might have led to the disinterest and disregard for teacher modeling. Finally, the period of rest and reflection during the mid-year school holiday might have led the teachers to model reading with reinvigorated strength and interest.

Conclusion

Frank Smith (1971), in his book *Understanding Reading*, argued that reading was not something one was taught, but rather was something one learned to do. The implication, which Smith made explicit, was that the "function of teachers is not so much to teach reading as to help children read" (p. 3). Teachers were thus to welcome the children into what Smith referred to as "the literacy club" (Smith, 1983, p. 2).

Students do not need to enjoy school activities in order to be motivated to learn from them, but they need to perceive these activities as meaningful and worthwhile (Brophy, 2004). In view of the school culture, it can be clearly noted that the teachers who are the essential *key* personnel to unlock the gate to *The Literacy Club* are not doing so. The message thereby sent to the pupils by not reading is that reading is neither meaningful nor worthwhile.

The Director of Schools (MOE–Singapore), Mr. Wong Siew Hoong, in a letter to the national newspaper, understood the importance of teachers as role models ("Teachers are expected to be good role models for students," *The Straits Times*, 8th October 2005). On a separate occasion, the Director of Personnel (MOE–Singapore), Mr. Lu Cheng Yang, in a letter printed in the nation's press, reiterated the importance in the selection of the country's teachers because "they [the teachers] must be good role models" ("Care exercised in selection of teachers," *The Straits Times*, 2nd November 2005). Because teachers play such an important role in motivating children to read, a lukewarm or task-oriented attitude towards reading can be problematic (Applegate & Applegate, 2004).

While a single case study cannot provide a sound basis for generalization, this study would suggest that schools in Singapore need to re-look its emphasis on its extensive reading programs. Is the program given enough weighting in school? Is enough importance attached to it such that both the teaching staff and students realize it unequivocally? To do so, a block of time must be provided whether it is set before curriculum time or within curriculum time. As in this case study of a school carrying out its USSR program, the school allocated a block of time, yet nothing came out of it.

A block of time, by itself, is not sufficient. Therefore, a second crucial step is required.

There are many other factors, such as appeal of the books, conduciveness of the environment to reading, and non-accountability (McCracken, 1971; Pilgreen, 2000). The book itself, no matter how interesting, is also not able to induce a reluctant reader to open it and engage with it. It is a non-entity. Neither a conducive environment, nor the fixed block of time, nor non-accountability can induce the child to read. All these factors were and are still in place in the school involved in this case study. The determining and necessary factor is the teacher.

The teacher is the one who can influence the reluctant reader to read because the teacher is living and real. The teacher is able to influence by the words used and the actions performed. The book, the time, the conducive environment and non-accountability are merely things and abstract concepts—non-entities to the reluctant reader.

For the teacher to influence, the first step is to model his/her reading engagement. Only through the persistent and dogged modeling can the teacher be the key that unlocks the gate to the reading garden. Teacher modeling is the necessary key. This was attested to by Day and Bamford (2002) when they put forward the 10 principles for an extensive reading approach to teaching reading, of which the 10th principle is that "the teacher is a role model of a reader" (p. 139).

To quote Nuttall (1996, p. 229), "reading is caught; not taught." The teachers need to "catch" it before the students can do so. If it is that important, then perhaps the school administrative leadership must "set the ball rolling" by being present during USSR to model reading. The administrative leadership of the school (one principal and two vice-principals) almost never read with the school during USSR. Only as and when they model this practice, will the modeling of reading be perceived as important by the teachers themselves; and only when the teachers feel that it is important, will the students perceive it as such too. As Vaughan and Estes (1986) believe, teachers who are enthusiastic and who communicate the value of reading as a cognitive and aesthetic experience are empowered to positively influence their students' attitudes toward reading.

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Appendix A

Sampling Ratio

The Sampling ratio was calculated through the formula as stated below:

$$\text{Sampling ratio} = \frac{\text{sample size}}{\text{population size}} = \frac{4}{44} = \frac{1}{11}$$

One teacher was therefore selected after counting 11 teachers.

Appendix B

Observation Template

Date		Day	
Term		Week	

Time for USSR: 0710–0730 hours daily
No. of classes: Primary 2 (11)
                    Primary 4 (11)   35 form teachers (English medium)
                    Primary 6 (13)   +
                                        15 Mother Tongue Teachers → 50 teachers
                                           (9 Chinese, 4 Malay, and 2 Tamil)

Teachers Reading

Time (hours)	No. of teachers present	P/VP present	No. of teachers reading (including P/VP)
0710			
0715			
0720			
0725			
Total			

Time (hours)	No. of lower-ability class form-teachers present	No. of lower-ability class form-teachers reading
0710		
0715		
0720		
0725		
Total		

*Primary 2A and 2B; Primary 4A and 4B; Primary 6A and 6B (6 classes in total)

Interruptions

Time (hours)	No. of interruptions made	Content
0710		
0715		
0720		
0725		
Total		

Appendix C

Teacher Questionnaire Survey

Dear teacher,

This survey is for the purpose of finding out what teachers, in general, **_believe and feel_** about Uninterrupted Sustained Silent Reading (USSR). Your honest opinions will be much appreciated.

1.   In school, we conduct USSR because _____
        _____
        _____
        _____

2.   I *model / do not model* reading during USSR because _____
        _____
        _____
        _____

N.B. 'model'—to read together with the pupils
Please delete accordingly

Thank you for taking part in this questionnaire survey.
Your help is much appreciated.

Please be assured that all responses will remain confidential and will be kept in anonymity.

Appendix D

Teacher Interview Questions

1.   Do you like to read?   *Yes*   /   *No*

        Why? _____
        _____

2.   What do you like to read?
        _____

3.   When do you read?   (a) School days (b) weekends (c) school holidays
        i) How often? _____

4.   Do you think reading is important?   *Yes*   /   *No*
        Why? _____
        _____

5.   a) Do you think reading helps children develop their literacy? *Yes*   /   *No*
        How? _____
        _____

        b) Do you think reading helps adults develop their literacy? *Yes*   /   *No*
        How? _____
        _____

6.   What is your personal opinion about USSR time?
        _____

7.   Why do you think we have USSR time? (Goals)
        _____

8.   Do you think USSR fulfils its goals? *Yes/*   *No*
        Why? _____
        _____

9.   What do you think is the teacher's role during USSR time?
        _____
        _____

10.   What do you usually do during USSR time?
        _____
        _____
        Why?
        _____
        _____

About the Author

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