



# Perceptions of Teachers about Knowledge Sharing in Schools

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## ABSTRACT

This paper explores how teachers in schools share their knowledge, experiences, and ideas; what are their preferences in knowledge sharing practices; what tools they use, and what problems they face in sharing knowledge. Unstructured interviews were conducted to gain an in-depth understanding of the perceptions of teachers. Teachers saw sharing with colleagues as a way to increase their learning and also viewed their own learning as worthy of sharing with colleagues. They preferred casual sharing, online communication, peer coaching, and interactive workshops. Time constraint was the major hurdle according to teachers while stress, reluctant to share and fear of criticism also contributed to the low frequency of knowledge sharing. Majority of teachers use e-mail and "Teachers Network" for knowledge sharing. Teachers supported the view that IT had improved their communication with their counterparts.

## INTRODUCTION

Knowledge sharing among teachers is a major issue in current movements of education reform and school improvement. The teacher is considered the key element for the success of school education (Yin, 1996). Traditional studies on teacher effectiveness focus largely on the performance of individual teachers in classrooms. This narrow conception of teacher effectiveness has its limitations and can no longer meet the needs of changing school environments, particularly when parents and the public are demanding high quality in school education.

By sharing their knowledge, teachers gain more than they lose. Sharing knowledge is a synergistic process – we get more out than they put in. When teachers share an idea or a way of doing things with another teacher – then just the act of putting their idea into words or writing will help them shape and improve that idea. If they get into dialogue with the other person, then they would benefit from their knowledge, from their unique insights and improve their ideas further.

Tschannen-Moran (2001) examined the efficacy of collaboration between teachers and collaboration between teachers and the principals and collaboration between teachers and parents in randomly selected elementary schools in an urban district in a Midwestern state, United States. He studied the relationship between trust and collaboration among members of the schools. He included parents as they too could share valuable information relating to their children. His findings proved that there is significant link between collaboration with the principal and trust in the principal, collaboration with colleagues and trust in colleagues and collaboration with parents and trust in parents.

Some studies had focused on informal means of sharing knowledge among teachers in schools. Black and Armstrong (1995) reported that the popular ways of knowledge sharing were peer coaching and mentoring. Guat et al (1994) also supported their findings. Meenakshi (2002) stated that teachers preferred informal sharing than formal means.

These studies discussed the benefits and means of knowledge sharing and stressed the need for knowledge sharing among teachers for professional development. Improvements in their careers are most likely to

occur where there are opportunities for teachers to work together and to learn from each other. Working with colleagues not only dispels feelings of professional isolation but assists in enhancing practice. Teachers are more able to implement new ideas within the context of supportive collaborative relationships or partnerships. Collaboration among teachers strengthens resolve, permits vulnerabilities and carries people through the frustrations that accompany change in its early stages. It also eliminates the possibility of duplication and allows greater coordination and consistency of teaching approaches (Harris, 2002).

This paper discusses knowledge sharing practices of school teachers with an objective to understand their preferences, to identify tools they use, and problems they face in sharing knowledge. The results are expected to explore possibilities for enhancing knowledge sharing through new policies, improved tools, better access to resources, and the efficacy of interventions with respect to personal, social, and organizational goals.

## DATA COLLECTION

Unstructured interview technique was used to seek insights on knowledge sharing practices in schools. An interview guide (Appendix) was prepared to lead the interviews and discussions. Unstructured interviews were helpful in this exploratory study as these allowed an opportunity of probing things which would otherwise have been difficult to know.

A government secondary school was chosen for the study and 35 teachers were interviewed. The population comprised of teachers from all disciplines. As the nature of knowledge and teaching methods may not be the same we considered teachers from all disciplines to identify the ways of knowledge sharing taking place cross disciplinary as well as in the same subjects. A set of questions were prepared as an interview guide that focused on the objectives of the research. The interview guide was not a substitute for the questionnaire. It was a list of lead questions which the researcher had done and thought over to facilitate the discussion.

Participants were encouraged to describe in their own terms their experiences and views. The unstructured interviews based on the objectives gave the opportunity to probe the participants with explanation, clarification, description and evaluation of their knowledge sharing practices. A grouping technique was used through developing a set of criteria based on objectives to distinguish observations as similar or different. This helped to analyze the responses of the interviews for pattern that related to the objectives among the subjects. The patterns facilitated the data to be presented in tables and chart formats which assisted in understanding them better

## FINDINGS

### Knowledge Sharing Practices in Schools

Most of the respondents were supportive of knowledge sharing as they themselves have acquired many skills in teaching through their

Table 1: Knowledge Sharing Methods

Ways of Sharing Knowledge	% of Positive Responses
Principal-staff Meetings	45
Departmental Meetings	70
Workshops	90
Seminars	40
Courses	90
Cluster Meetings	50
Peer Coaching	75
Casual meetings	95
Online communications	100

peers. Teachers share knowledge regarding their teaching methods, classroom discipline, dealing with problematic students, and organizational activities like preparing question papers, managing the students' records, preparing worksheets etc. They develop their skills through various knowledge sharing programs conducted by the Ministry of Education, through the "Teachers Network", and by their schools. These programs are mainly workshops, sharing sessions between teachers from various schools, and short term courses for their career advancement. The Intranet TRAISI is one of the MOE networks where they get information ([www.moe.edu.sg](http://www.moe.edu.sg)) about the various courses of staff development, which they felt that it was useful in teaching and designing activities for classroom.

From the interviews with the teachers it was implicit that the ways of knowledge sharing could be classified into formal and informal sharing. They considered the department meetings, meetings with the principal, cluster meetings, workshops, professional development courses, peer coaching, etc to be formal sharing as they took place at a prearranged time.

The schools shared messages from by Ministry of Education (MOE) and other matters regarding school administration, student activities, student improvement measures, etc during these meetings with all staff. Most of the teachers did not favor the principle-staff meetings as they considered it as one way communication and mostly time consuming and they preferred the department HOD-staff meetings where they get all the news through their Heads of Departments (HODs).

Singapore has grouped schools in clusters keeping in view the geographic proximity of elementary and secondary schools. Cluster meetings also received less response because currently they exchange only question papers and discuss about competitions and plans of school improvements. But cluster meetings were held only occasionally like once or twice a year.

Table 1 clearly indicates that online sharing, casual meetings, workshops, peer coaching and courses were the preferred ways of knowledge sharing among teachers. Workshops and courses received good response as they could share and receive valuable information and also upgrade themselves through various courses. Casual meetings and online communication got maximum support from the teachers.

The respondents considered that the meetings teachers had in groups, either in the staff room or at the canteen to be informal sharing as there was no restriction on time and they could discuss matters that concerned them freely with their colleagues. These were mainly conversations among the teachers taking the same subjects or involved in the same co-curricular activities. It did not involve the Heads of Departments. They also considered online communication as informal as they could chat or e-mail their colleagues regarding any matter without being watched by others.

#### Use of Tools and Technology

Teachers strongly supported the view that IT has boosted their knowledge sharing in a number of ways. All the teachers said that

Figure 1

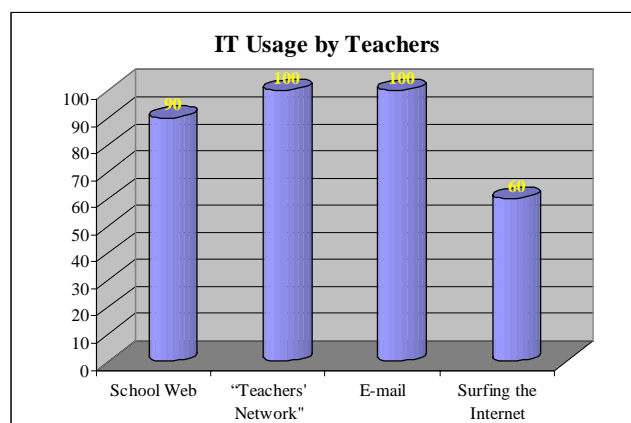


Table 2: Barriers Encountered During Knowledge Sharing

Type of Responses	% of Responses
Reluctant to share	45
Fear of criticism	20
Stress	75
Time constraint	90
Social issues	30

communication was made simple through e-mail. IT is now popular among the teachers and majority of them use e-mail and for knowledge sharing and "Teachers' Network" for getting information from MOE and about career development information. Figure 1 shows the IT usage practice by majority of teachers.

#### Barriers

Barriers are not uncommon during knowledge sharing among teachers. The most important is 'time constraint' and stress. With heavy schedule and little time to spend with their colleagues, knowledge sharing is becoming a luxury these days. Though teachers have realized the significance they could not spare much time towards discussion, exchange of information or getting advice from their colleagues. Other constraints were less social integration, reluctance to share their work and fear of criticism from peers and lack of confidence.

Table 2 shows that time constraint and stress were the biggest barriers for free flow of knowledge sharing.

#### DISCUSSION

##### Formal Meetings

As revealed from the interviews teachers are not enthusiastic about principle-staff meetings. The problem could be that social interaction is less as teachers are busy among themselves and especially when it comes to the principal, their relation is very formal. They do not voice their opinions freely to the principal. Same when it comes to department meetings except for a few, many of them just listen to what others are talking, and just accept at what the HOD says.

Workshops were valuable for promoting awareness of new practices or curricula and provide opportunities for teachers to network and share. For example the teachers said that the IT workshops conducted by the school boosted their Internet proficiency. Workshops were organized by the schools or by Ministry of Education for staff development. Majority of the teachers favored workshops to seminars for their development because they felt that the sessions provided more opportunities for interactive knowledge sharing between the participants and the presenter which may be valued more than only lectures which were common in seminars.

Most of the teachers supported peer coaching. Teachers have expressed that they have benefited greatly from a staff development model which incorporated peer coaching. Peer coaching is a positive solution to some of the problems of traditional in-service offerings that have been used to educate teachers who handle different types of students. Instead of one-time workshops with no follow-up, peer coaching provides the ongoing assessment of a specific skill or strategy that enables the teacher to continue his/her training in the classroom. Peer coaching reduces isolation by providing the professional dialogue that encourages teachers to generate solutions to their own problems.

By sharing instructional strategies and techniques, teachers pool not only their physical but also their intellectual resources. Such collaboration is especially important in enabling teachers from a variety of disciplines to become familiar with and value the contributions of the others. Peer coaching has the potential for furthering a teacher's individual professional development, for improving school climate, and, ultimately, enhancing school effectiveness when a model appropriate to school goals is applied. Teaching strategies such as cooperative learning and writing across the curriculum are examples of topics which can serve as the basis for coaching sessions (Garmston, 1987).

### Casual Meetings

A majority of teachers preferred informal knowledge sharing which are casual meetings and online communication. This was because in casual meetings they did not have the anxiety or the pressure as when they had during formal meetings. They met colleagues over coffee or lunch or whenever they were free and exchanged information and their experiences. They did not have to worry about what others would say of their ideas.

According to Albert and Naidu (2001) in their study on Experienced-Based Pedagogical Designs for e-Learning, there has been growing interest in building learning environments that focus on supporting groups of learners engaged in reflection on critical incidents from their workplace. Wilson (1996) emphasizes learning environments as opposed to 'instructional' environments in order to promote "a more flexible idea of learning", one which emphasizes "meaningful, authentic activities that help the learner to construct understandings and develop skills relevant to problem solving". Reports of knowledge sharing during the afternoon tea-break conversation of a group of teachers support the effectiveness of sharing of experiences. During these informal causal conversations, these teachers shared their "stories" about how they solved problems daily. In the casual and friendly environment over the afternoon tea, the third-person experience, as told in first person, quickly transformed into the repertoire of the listeners. This gives rise to the premise that there is much potential for the storyteller for supporting learning (Albert and Naidu, 2001).

### Online Communication

According to the findings all the respondents interviewed agreed that they preferred online communication for knowledge sharing. The advancement in information technology has paved the way for effective and efficient knowledge sharing. The Master plan for IT in Education is a blueprint for the integration of information technology in education as a strategy to meet the challenges of the 21st century. As a result, they could communicate and collaborate with other educational institutions, local and foreign, and the community at large. These new learning connections have helped teachers and pupils develop the perspectives required to work and live in an increasingly borderless world.

IT has been used to promote greater and more efficient communication within the school, amongst schools and between MOE (HQ) and schools. It has enhanced the effectiveness of educational administration. Ready access to online data and information supported effective decision-making at all levels.

Teachers were provided with ready and frequent access to computers both during and after curriculum hours, so as to access information and learning resources; prepare lesson plans; deliver their lessons; assign work and respond to their pupils' scripts and projects; communicate with their peers and supervisors; and perform administrative tasks. The constraints of space in staff rooms and the need for portability were

surmounted by the school by providing teachers with notebook computers to work at home.

All the teachers use the school Website to share resource with other teachers, to communicate, to learn about new updates and to post lessons for the students. It is updated regularly and it is one of the means of sharing among the teachers. The "Teacher's Network" was one of the Web sites which the teachers valued most. The "Teachers Network" is working in many ways to help teachers overcome the barriers in teaching and professional development. It also updates teachers on-line on the latest development, issues and trends in education and the world around.

### Overcoming the Barriers of Knowledge Sharing

According to the findings, time constraint is the main barrier for knowledge sharing. MOE had fixed that each teacher should complete certain hours of teaching per week. This took almost all the time they have in a day during weekdays. They could hardly spend time in socializing or chatting with their colleagues and share knowledge. This could be rectified only by the policy makers in MOE and the principals could recommend for such a modification.

To overcome the problem in socializing among the teachers, the department should engage in professional development with joint enterprise aimed at improving learning through collaboration. There should be a "we" attitude, instead of "I" attitude among teachers. Teachers should not declare intellectual ownership of their work. Instead, they should collaborate, share, and be open to new ideas, resources, and strategies for their instruction. Peers and young teachers should create weekend workshops, seminars, and study groups to learn new innovations and develop instructional resources. Ultimately all the teachers wanted that they should excel in their career and by sharing and collaborating it could be achieved. In essence, teachers should continually help each other so they could support the development of the community, spanning from new to expert participants.

Teachers share knowledge freely only with their close friends and not with others. According to the literature, seamless communication and collaboration can only take place where the teachers socialize well. This is not predominant in the school as observed by the researcher. To change this attitude the school should come forward to socialize more often and stress the importance of sharing among all the teachers whether they are new or experienced or friends. It should create a social integrity among the teachers to facilitate knowledge sharing.

Knowledge sharing is prevalent in schools in Singapore as stated in literature (Meenakshi, 2002) but not voluntarily and regularly except for the formal meetings. It does not mean that teachers are not aware of the benefits, but there are many strategic regulations that hinder the practice. Current policies required rather a higher number of hours as teaching load requirement, without much flexibility left to schools to make such decision and adjustment at local level. Current teaching load only allow one or two free hours a week.

### CONCLUSION

The findings suggested that knowledge sharing takes place and there are more opportunities for such practices to take place in schools as a result of changing teaching methodologies. Though teachers are not very enthusiastic about formal meetings, many have started to voice their opinions in those meetings. Teachers preferred informal meetings as they can talk freely with their colleagues without any restrictions or formalities. The study has highlighted that more efforts need to be made to promote knowledge sharing to take place frequently and voluntarily. Socialization among the young and the experienced teachers is a must and schools should make it compulsory that they meet regularly. Teachers should be aware of the prevalent school culture in order to socialize. Socialization should not be limited to one school but teachers from different schools should come together and share their tacit knowledge. Though the interview helped to acquire in-depth knowledge about knowledge sharing practices it would be more useful if questionnaire were also distributed as this would have given a combined qualitative and quantitative data for assessing.

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## APPENDIX - INTERVIEW GUIDE

1. Does knowledge sharing take place in the school? If so what are the ways in which sharing takes place?
2. Which method do you consider as effective for sharing knowledge?
3. Does knowledge sharing take place voluntarily during the meetings or sharing sessions?
4. What type of information is shared during the sessions?
5. How does the school help new teachers to adapt to the environment? Do they organize any knowledge sharing sessions with experienced teachers?
6. What are the barriers encountered during the knowledge sharing practice?
7. How does the school help to overcome the barriers?
8. Does knowledge sharing benefit you and in what way?
9. In what ways does the school encourage for knowledge sharing to take place?
10. Does technology plays an important role in knowledge sharing?
11. What are the benefits you reap out of sharing knowledge?
12. Do you feel that knowledge sharing should take place because of the benefits?
13. Would you like to make any suggestions to promote knowledge sharing culture in schools?

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