two-way text messaging solves key socialization issues

FOR DEAF AND HARD OF HEARING TEENS AND THEIR PARENTS

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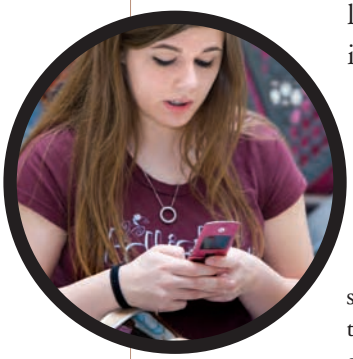
THE ISSUES

Five years ago, one of the authors of this article was the head of the deaf department in a large urban high school. Parent/family workshops consistently revealed parents' concern for the safety of their teenaged children when they were away from home unsupervised. Because of the difficulties in communicating at a distance at that time, the children couldn't call for help, access emergency services, or even report a change in plans. Parents' reluctance to let their deaf teens go out unaccompanied resulted in the children's social isolation. This, in turn, left the teens with restricted opportunities for independent problem solving and socialization. What's more, the children's need for privacy often could not be met because of these safety concerns.

The students at this urban high school were concerned about developing their own independence. Most of them had limited literacy skills, and many were unable to communicate effectively through print. Because they often were accompanied and directly supervised by their parents at later ages than is typical in our society, the students voiced dissatisfaction with their opportunities to make decisions for themselves, be responsible for their actions, and have some freedom.



Right: Instant communication via text messaging solves many problems, worries for teens, parents, and teachers.

Photography by John Consoli

THE PILOT PROJECT

The Rotary Club of Toronto Eglinton had a history of working with one of the deaf and hard of hearing programs of the Toronto District School Board (TDSB) by providing technological devices such as vibrating alarm clocks and wristwatches, portable TTYs, and flashing-light alarms and "doorbells." The Rotary Club also provided initial funding for translation of letters to parents who did not have English as a first language, as well as contacts with Motorola, CI Investments, General Electric, and Bell Canada. Motorola initially approved a donation of 250 two-way PageWriter 2000X Motorola text messengers, and Bell Canada donated five years of monthly services and maintenance and repairs. Three years into the project Motorola discontinued its product line, so a switch

was made to Blackberry devices, which were donated by CI Investments and General Electric. Including not only the three school sites in the TDSB but also York University in Toronto, which provided research time and expertise, this represents the largest educational partnership in the district.

The study took place at two large inner-city public high schools and in grade 8 of their feeder school. The vast majority of the students in the study had severe to profound congenital hearing loss and were being educated in congregated settings by teachers who were specially trained to teach this population. At each school, there is a deaf education department staffed by teachers of the deaf, interpreters, and educational assistants. On average in any given year, there are 30 to 40 students in each high school's deaf department, and five or six deaf or hard of hearing students in grade 8 of the feeder school. Students have the opportunity to take courses both within the deaf department (in small classes with the teacher of the deaf and hard of hearing) or in the mainstream with support services. The students represent multiple cultures, and many come from homes where English is not spoken, or not spoken much. Some of the students communicate orally, and others through sign (or some combination of speech and sign); many of the parents of these students do not know enough sign language to communicate easily with their child. Moreover, the target student is typically the only deaf or hard of hearing person in his or her family. As is the case with many deaf and hard of hearing students, the literacy levels of the students in our study were not commensurate with those of their hearing age-peers.

Participants in the study included:

1. All students in the deaf and hard of hearing programs at the two high schools and grade 8 of the feeder school (n = 90).

2. The staff of the deaf departments at the two high schools (n = 17). The staff at both schools included both deaf or hard of hearing and normally hearing individuals.

3. The parents or guardians of the students (n = 95). All of the students' parents were hearing.

Before using the equipment, each participant took part in a pre-use survey designed to elicit thoughts on how the participants thought the two-way text messengers might be used prior to actually having any experience with them. After four months of two-way text messaging use, the participants were invited to a feedback meeting to report on how they used their text messengers and to see if there were any changes in either their concerns or their expectations, based on experience with the equipment. A second feedback meeting was conducted five months later.

The overwhelming majority of the students expressed satisfaction with access to the technology: Only 4 out of 90 expressed dissatisfaction.

What We Learned

Not surprisingly, prior to using the two-way text messengers, both the students and their parents expressed concerns about personal safety. They needed to know that they would be able to contact each other in case of emergency. The parents wanted to be able to know where their child was, whom their child was with, and how to guide the child to safety if he or she got lost. With the text messaging system in place, the students believed that they would be able to go out at night without their parents and to manage in case they got lost. The parents and staff reported that they were able to have direct communication with the students and with those among the parents and staff who were deaf or hard of hearing. This eliminated some safety concerns about fire alarms and emergency procedures and contributed to the ease of coordination of everyone's activities.

While the parents naturally needed to know if their child's plans changed, they also were concerned that they be able to contact their child if their own plans changed. They wanted to know if their child was going to be late coming home or whether he or she needed a ride. They were also concerned with their child's insistence on privacy when they were effectively out of contact with him or her.

The overwhelming majority of the students expressed satisfaction with access to the technology: Only 4 out of 90 expressed dissatisfaction. However, this dissatisfaction was not with the technology but with the increased levels of independence these students wished they had. They said they would prefer to have "much more freedom," and they wished they could go out more often. In these cases, the students were not accruing the anticipated benefits of the technology.

Students mentioned that they used their two-way text messengers not only to communicate with their parents, school staff, and each other, but for other things as well. Following are two typical comments taken verbatim from the students' written survey responses:

- *"The pagers helped me to send my dad and my dad is less worry. After school I allowed to play basketball, ball hockey with friends."*
- *"The pagers help me that alarm helps me to homework, meet friend, and birthday. Help me to remains medican, I feel good to help me the alarm. I feel more satisfied that I have often go out somewhere."*

Many students reported that two-way text messaging was their main link to their friends. A few became experts at text messaging and helped to run workshops for both students and parents. One also become the troubleshooter for broken equipment and was able to identify problems and correct them so that malfunctioning devices did not need to be sent back to the manufacturer for repair.

The parents were uniformly satisfied and were gratified that

the two-way text messengers had been introduced into the deaf and hard of hearing program. They indicated that they were less worried about their children. Other benefits the parents reported were being in contact with their child more often, being more aware of their child's movements, taking comfort in knowing they could get in touch with their child at any time, and keeping connected to other people through e-mail.

The staff, particularly those who were deaf or hard of hearing, also expressed uniform satisfaction, stating that they were now able to coordinate schedules more easily and to contact each other. One staff member, who was in charge of cooperative education placements off campus, wrote, *"My Co-op students have many questions and concerns regarding their work placements. In addition to discussing issues in class, they contact me via … telephone and TTY, … e-mail, … {and} pager system."* (Among the school staff, the two-way text messaging system was often referred to as the "pager system.")

It was also easier to communicate with the students and to make them responsible for their whereabouts. For example, if a student were absent, an interpreter might not be needed for a particular class and would therefore be free to work with another student or in the office. This information could be communicated easily via the pager.

The Policy Implications of Our Research

In a climate in which the rights of people with disabilities have become central to public discourse, there is a place to think about the ways in which two-way text messengers and other such technologies provide access and remove barriers for deaf and hard of hearing individuals. One of the central features of the Individualized Education Programs of the vast majority of deaf and hard of hearing students is the requirement to make note of the accommodations that must be provided for any particular student in order for that student to have access to the program and to be successful. Particularly for students who have minimal English skills, curriculum could be developed that focused on the functional literacy that two-way text messengers allow. Equipment accommodations can include "any type or item of equipment or any electronic product or system, whether commercially produced, adapted, or custom-made," that the student needs (Ontario Ministry of Education, 2006), and should include technologies like sound field systems, TTYs, and signaling devices. If it can be shown that text messengers afford students access in the way that other technologies have done, then it would be reasonable to suggest that two-way text messengers be added to the list of recommended accommodations. An additional aspect of adding two-way text messengers to this list would be an expectation that they would be made available and funded by the government or school system. Beyond accommodations for students, an argument could also be made, at least in the United States, for the funding of two-way text messengers for deaf and hard of hearing staff in the schools through Section 504 of the Rehabilitation Act of 1973.

Text messaging naturally works best among people who have at least a minimal level of English literacy skills. We do not know what that minimum is. Low English literacy levels among many of the families may have influenced frequency of use within the family. The students did express a wish for other languages (i.e., orthographic systems such as Cyrillic, Chinese, or Tamil) to be available on the two-way text messengers. Even so, low English literacy levels did not stop parents from communicating as best they could in English. For example, one parent reported that "it changed us better to have pager like to contact my son from pager. It did help us pagers and it helped us to know where my son is."

The TDSB has purchased two-way text messaging devices for all staff working with students who are deaf or hard of hearing throughout the school board as a result of seeing the safety benefits to the student participants in our study. It would appear that this technology has much to offer deaf and hard of hearing students and is making an impact beyond what it was originally designed to address, either by the manufacturers or by this study.

Notes

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