

# Improving teaching: health education in Pakistan<sup>1</sup>

## Two classes in the pilot program



Source: Institute of Educational Development, AKU

School projects for water, sanitation and hygiene should ideally combine both the hardware (facilities) and software such as training, personnel, educational materials and monitoring. However the hardware inputs are not always available in the thousands of schools where they are needed. This leads to important questions such as: Can programs be effective when they focus on capacity building and educational methodologies alone? What can be expected from such interventions? This action research program, undertaken by the Institute for Educational Development at Aga Khan University in Pakistan, tried to answer these questions using a range of monitoring and research tools.

A needs assessment was used to identify five schools that had students from a variety of socio-economic levels; and expressed a demand to participate in the school health project. Based on this the Institute for Educational Development, in partnership with Save the Children (UK) and the Child-to-Child Trust (UK) undertook an action research project to test and assess models for 'health promoting schools' in Pakistan.

The implementers of the health action program were the schools themselves through the teachers. The project inputs were limited to teacher development through training, monitoring and through providing resource materials for lesson planning. No additional textbooks or costly inputs were given to the schools because this would limit the possibilities for sustainability and scaling up the program to other schools having very limited resources.

### *The health education approach*

Each school appointed a health coordinator from among the teachers to manage the program and commit themselves to teaching 30 health education lessons per year; this was to be done either as a separate weekly

<sup>1</sup> Adapted from article by Tashmin Kassam-Khamis and Sadia Muzzafar Bhutta (2006) *Affecting schools through a health education initiative* in **Partnerships in Educational Development**, ed. Iffat Farah & Barbara Jaworski, Oxford Studies in Comparative Education, Symposium Books, UK.

subject or through integrating with a 'carrier subject' such as science or social studies. As a result on average at least one health lesson was taught each week.

This approach is based on the principle that each health topic should be covered over a series of lessons (four to eight periods), rather than only one lesson. Through a sequence of activities, children begin to recognize the health problems and relate to health issues and with their own homes and communities. In addition, each school designed and implemented its own **school health action plan** based of local priorities and capacities. Schools selected topics that ranged from neighborhood cleanliness campaign, safe and clean water, safe disposal of excreta, oral health and food hygiene. In addition there were activities to promote health outside the school.

The improved method of teaching health-related topics required a sequence of steps that linked learning in the school with action at home. This was the Child-to-Child approach - a framework for involving children in their own learning and relating health to life at home.

### *The Child-to-Child approach*

*Step 1: Choosing the right idea. Understanding it well*

*Step 2: Finding out more*

*Step 3: Discussing new findings and planning action.*

*Step 4: Taking action*

*Step 5: Discussing results of the action*

*Step 6: Doing it better and sustaining the action.*

In the initial two to three days of training, the teachers were first exposed to a six-step approach for Child-to-Child methods. They translated the steps into a unit plan for each health topic and a sequence of activities (a minimum of four 40-minute lessons) on each topic. This was followed by school-based workshops modified according to the needs of the teachers and realities in each school. These were held for up to two hours at a time once a week over a period of 4 to 6 weeks. The training was based on a health topic to be taught by the teacher during that particular week. Trainers in the classes observed the transaction of a variety of lessons. This school-based training was popular with the teachers.

*I think we learn much more from trainings that happen in our school and other support. It is practical and contextual and we learn that promoting health is possible with our own resources. When trainings are held (in the*



Source: Institute of Educational Development, AKU

*training centre) we come, we note, but we don't do. -  
Class 5 teacher*

## Impact of the health education program

### Impact on teachers

When the project started, teachers tended to use rote learning and memorization in the classroom. In some schools teachers even used a stick (as a pointer but also for hitting children) while teaching. Even talking about



Source: Institute of Educational Development, AKU

teaching practices was somewhat alien. Through workshops and school follow-up the teachers became more open to discussing and improving their practices. It was observed that teachers slowly moved away from being prescriptive about healthy behaviors (for example, telling children they must be clean) to helping them understand why health behaviours were important. They stopped using the stick in the classroom. There was evidence of teachers not only applying activity methods such as story telling, using pictures and putting on puppet shows in their health education lessons, but also using these teaching methods in other subjects. Thus the Child-to-Child approach in health education appeared to help improve the pedagogical methods even in subjects other than health. Teachers

learned to teach health in a child-centered way, involving children and relating health to daily life activities at home. Children participated in formulating survey questions, collecting data, planning health action, making materials for younger children and so on.

*I learned how to tell stories by story mapping in the health sessions... but now I use story-telling strategies in other subjects too. - a school teacher*

### Impact on children

#### Children's health knowledge and skills

Children developed better communication and inquiry skills by having to find out more about a health topic from home or from other classes in the school. Both the evaluation of the program and pre- and post-tests found an improvement in children's health knowledge, skills and behavior. Examples of health knowledge questions included: how long should water be boiled to make it safe for drinking? - how to prevent coughs and colds; the

diseases prevented by immunizations and so forth. The baseline and post-intervention test of students tracked in each school (1998 versus 2001) showed an increase over the baseline in health knowledge in all schools although this increase was statistically significant ( $p < 0.05$ , chi-square tests) only among the children in the poorest government rural school.

*I had never imagined children can do so much like making toys for younger children. I was surprised by how children were able to recite poems on health issues. The children amazed me – how much data they would collect from surveys. I thought they would only collect information from their families, others would not give them such information - but the children received positive feedback from the community. (former coordinator and now deputy head boy's school)*

### Children's self-esteem

The Child-to-Child initiative has goals that extend beyond the development of health behaviors. It also seeks to increase children's coping capacities and sense of self-esteem. The need for this was evident, for example, in that rural school children at the beginning of the intervention were too shy to even go up to the blackboard to write their names. By the end of the project, however, they were happy to teach others through drawing pictures on the blackboard. They were seen to be both asking and answering teachers' questions, a sign of their growing confidence. The project team wanted to test this, to develop quantifiable evidence, by using a self-esteem questionnaire validated for children over eight years of age in schools elsewhere<sup>2</sup>. This was applied before and at the end of the intervention (1998 versus 2001). It showed a statistically significant improvement (t-test,  $p < 0.05$ ) in children's self-esteem in the rural government school and in the community-based school than in the other three schools. The findings were consistent with the final evaluation that more impact was seen in the smaller, poorer schools. A plausible explanation is that greater gains are to be made where the starting point is lower.



Source: Institute of Educational Development, AKU

*In measuring the impact it is concluded that the greatest gains can be made in small, poorer resourced schools in rural areas or close-knit urban communities (final evaluations, Carnegie & Kassam-Khamis, 2002).*

### Factors that led to change

Supported by an external assessment of the program the project team identified several factors, which were crucial to the impact of the program.

**Follow-up in the school:** Firstly, much time was spent in school follow-up by the project team sitting with teachers, encouraging them to read materials, setting objectives and planning and observing lessons. The project team felt that without the follow-up support in the schools, the initial workshops would not have brought about changes in the classroom. A monitoring strategy was developed which focused on training individual teachers and observing all the lessons on one topic. This tracking strategy helped teachers to improve their teaching methodologies and also provided insights to the project team for planning the project in the future.

<sup>2</sup> See the Lawseq questionnaire in Lawrence, D. (1996) *Enhancing Self Esteem in the Classroom*. London: Paul Chapman.

**FAME:** A particularly popular model of training was called FAME (Fun Active Methods for Education). These were two-hour sessions open to all teachers in the school that provided a 'menu of teaching methods'. These sessions focused on a range of methods such as story telling, puppets, dramas, effective use of the blackboard, discussions and questions, group work, pictures, surveys and games were designed to help teachers use active methods not only for teaching health, but for all subjects. The teachers and the project evaluators found the FAME sessions in improving teaching/learning to be particularly enriching. In their view this was an effective form of school-based teacher training.

*I feel the FAME sessions really made me use and generate new methods in my teaching. I had heard about these methods before – stories, puppets, pictures ... but FAME made me practice them, how to do them. And I did them in health and then automatically I started to use the methods in other subjects. - Teacher in a boy's school*

**Action research -a catalyst to commitment:** This action research project of three-year duration was limited to just five schools-yet it was able to generate a high degree of interest and commitment among teachers. This was also a factor that contributed to the impact of the program. However, the intensive input consisting of repeated visits to each school, no matter how desirable, may be difficult to scale up.

**Health education as a separate subject:** When health was taught as a separate subject, children seemed to learn more, rather than when it was integrated through another subject such as science and social studies. The teachers often did not have the skills to integrate health within other subjects.

**Teaching in mother tongue:** Wherever children received health education in their mother tongue (Urdu) rather than English (as in English-medium schools), they understood the lessons better and learned more.

**Leadership of head teachers:** Lastly, the commitment of head teachers was crucial in starting and sustaining any change. Head teachers were involved in orientation workshops at the beginning to build their sense of ownership. The program suffered when head teachers were transferred. Similarly the involvement of the whole schools, in the program is important rather than just particular target classes.

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# Annex

## About the WASH in schools case studies

Developed by IRC International Water and Sanitation Centre under the SSHE Global Sharing project financed by UNICEF.

Over the decade a rich pool of experience and programming has evolved in school programs for water, sanitation and hygiene education, which we call WASH in schools or SSHE. Hundreds of millions of children are currently attending schools that have, in one way or another, become part of this ambitious effort to enhance the lives and life opportunities of young people around the world.

In the 1980s and early 1990s, these programs focused largely on construction. This usually meant building water points and toilets in schools. Current experience, however, has provided a strong evidence base on the crucial need to combine hardware (facilities) with software, that is, management, organization, capacity development, educational methodologies and promotion of hygiene behaviors. Participation of key stakeholders—teachers and educational staff, local government and community groups, parents and children – is seen as key to the success of these new WASH in school programs.

This collection of case studies examines both hardware and software aspects of WASH in schools and in different settings. The case studies focus in one way or another on four general themes: planning and management; actions in the school and teaching-learning; technology and design; and, scaling up or expanding WASH in schools while retaining its quality. The case studies are drawn from experience in Africa (Burkina Faso, Ghana, Kenya, Malawi, Senegal, Somalia, Zambia), Asia (Bangladesh, India, Nepal, Pakistan, Vietnam) and South America (Bolivia, Colombia, Nicaragua). The case studies provide insights into programs supported by UNICEF and also by other institutions such as the Aga Khan University, Caritas, Plan International and NETWAS International. Despite the breadth of institutional and national experience upon which the case studies draw, it must be noted that these 14 papers only provide a glimpse of the rich and often exciting experience in WASH in schools from around the world. Nonetheless, this is a 'glimpse' which will hopefully provide the reader with worthwhile insights into the current state of the art in school programming. At the end of each case study there is contact information for the reader seeking further information.

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All case studies are available at the WASH in Schools web site: <http://www.schools.watsan.net>

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