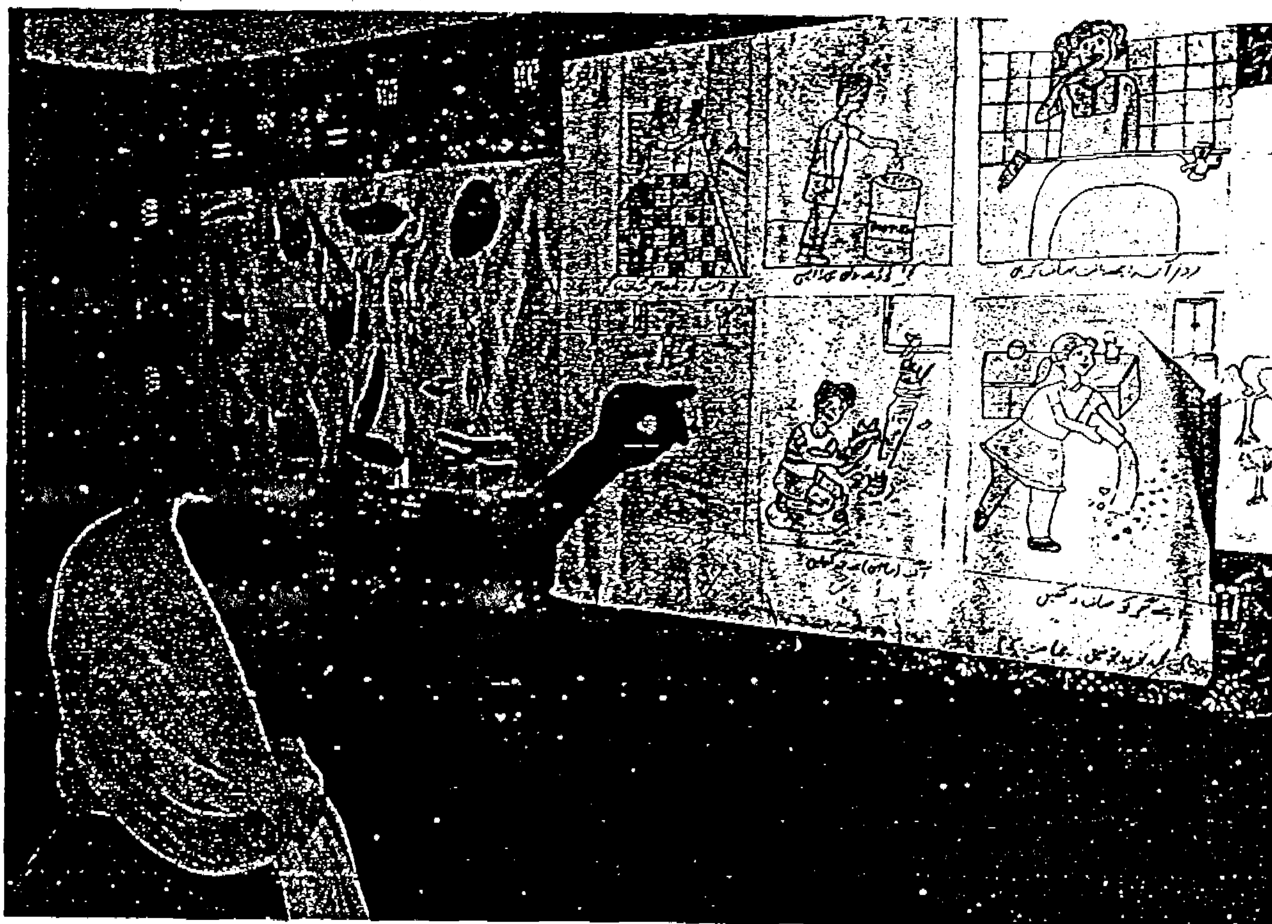
'THE QUEST FOR QUALITY'

An Evaluation of the Health Action Schools Project Karachi, Pakistan



By Rachel Carnegie and Tashmin Kassam-Khamis

in association with

Raiha Idrees, Zohra Nisar Ahmed,
Shaista Karim and Noordin Merchant

August 2002

822-PKKA02-18996

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Aga Khan University
Institute for Educational Development
Karachi, Pakistan

Project funded by
Save the Children UK

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ACKNOWLEDGEMENTS

The authors wish to thank all those who participated in this evaluation process: children and their teachers, head teachers and parents from HAS schools in Karachi and Sindh Education Foundation schools in Sehwan.; the Director, Gordon MacLeod, the Management Committee and staff of the Aga Khan University's Institute for Educational Development; the staff of Save the Children UK in Karachi and Islamabad; the Provincial Minister for Education (Sindh) and Managing Director of Sindh Education Foundation, and staff from government and non-governmental agencies who participated in meetings or gave interviews during the review process.

We would also like to thank staff in the HAS team and IED administration, as well as staff of SC-UK and the Sindh Education Foundation for their full support and highly efficient logistical arrangements during the evaluation period. It would have been impossible to meet so many people and to see so much in so short a time without their excellent support.

We also appreciate the time and reflections given by past HAS team members, Sadia Bhuttia and Farrah Shivji, as well as by members of the Child-to-Child Trust, who have been closely associated with the HAS initiative, including Hugh Hawes, William Gibbs and Christine Scotchmer.

The insights in this report represent the contributions of all these individuals, who joined in examining and reflecting on the HAS initiative. The achievements of HAS is a tribute to their commitment and vision.

The Review Team:

Rachel Carnegie – Adviser, Child-to-Child Trust, Institute of Education, University of London
Dr. Tashmin Khamis - Principal Investigator on Health Action Schools Project
Raiha Idrees - Programme Officer, Save the Children, UK
Zohra Nisar Ahmed - Programme Officer, Health Action Schools Project
Shaista Karim – Senior Research Assistant, Health Action Schools Project
Noordin Merchant - Administrative Officer, Health Action Schools Project
Jiwan Das – Programme Manager, Save the Children, UK, managed the field research at Sehwan in rural Sindh

EXECUTIVE SUMMARY

1. Background to the Study:

The Health Action Schools Project (HAS) in Pakistan has developed and tested a model for comprehensive school health promotion. This four-year action research project (1998-2002) is based at the Institute for Educational Development at the Aga Khan University in Karachi, Pakistan, and has been developed in partnership with Save the Children (UK). The action research study has been conducted in five schools, with contrasting contexts, in Karachi. The HAS project has also supported other schools in Karachi and various formal and non-formal education programmes throughout Pakistan in the adaptation of its model for school health education and health promotion.

2. Research Methodology:

As an action research project, HAS has systematically collected an extensive body of data, both qualitative and quantitative. It is probably the most comprehensively documented initiative in the Child-to-Child global network. The scope and quality of this data, collected before, during and after the intervention, has provided a major focus for this evaluation through an analysis of existing documentation. However, in consultation with the HAS team, it was felt that further primary research was required to enable a more participatory analysis with the main stakeholders on the process and outcomes of the project. Above all, it was considered vital to hear more of the voices of children and their perspectives on HAS. A range of qualitative tools, including child-centred participatory research tools, were used to enable the triangulation of findings within and between the main stakeholders: children, teachers, school heads, a few parents, trainers, programme managers, and partners in government and NGOs, staff at Save the Children and the Institute for Educational Development. The duration and timing of the evaluation visit, during a tense political situation, meant that community visits within Karachi were not possible.

3. Purpose of this Evaluation

The HAS initiative is at a crossroads. It has achieved remarkable results in its 4 year pilot project. The purpose of this participatory evaluation study has been to reflect on these outcomes and analyse the process by which they have been achieved, but also to look forward, contributing to the refinement of a strategic vision for the future development and sustainability of the HAS initiative, and, more generally, for school health education and health promotion in Pakistan.

4. Main Findings on *Process* in HAS Schools

- HAS has made quality in the classroom teaching-learning process the central focus of its work. It has developed a model for in-service training, which is responsive to the individual needs of schools and teachers themselves. Through this, teachers have been supported in planning and implementing health education lessons based on a simple active learning methodology. Through action research, the project adapted

the Child-to-Child approach into a Four Step learning process, which moves children from *understanding* a health issue, *finding out more* about how it relates to their own schools and families, to *taking action* to address this issue, and, finally, to *evaluating* what they have achieved. High quality teaching materials, as well as a scope and sequence charts for a health education curriculum, have now been developed and tested. These materials will support the outreach work in which HAS is now engaged, assisting other education programmes with training and materials development to adapt the HAS methodology to their own contexts. A Child-to-Child Resource Centre has been established at IED, which provides access to materials and is being developed as a centre for school health education training.

- **The HAS project provides a model for action research** in its extensive systems for monitoring and documenting process, using a cycle of continuous action and reflection by the team. This action research component must remain central to HAS' future development, so that it continues to be critical and reflective on its practice, ensuring that the process does not become ossified now that the original key personnel in the project have moved on.

- **Achievements in HAS have been made despite major constraints.** Teacher turnover has proved the main issue, with an overall loss of 46% of HAS trained teachers over four years, and, in one school, a crippling turnover of 84%. The original model for HAS was built on a tri-partite structure: Health Education - Healthy Environment - School Health Services. Whilst positive impact has been made on the school environment, it has proved difficult to engage the School Health Services in collaborative work, except in one school. This has proved a limitation but not a fundamental flaw to the model. Some alternative strategies have been developed for health provision in schools. The HAS model has, therefore, been modified, placing Health Education as its central pillar and its principle focus of work. This decision has enabled HAS to concentrate on issues of quality in the *classroom*. However, in the next phase it will be important to revisit these issues and develop strategies for linking classroom learning more explicitly with the children's environment beyond class and school, including working with other health providers in the community.

- A central objective of HAS' work has been to research and develop models of in-service teacher education and support. Initially, training was conducted centrally at IED, but this later evolved, through the action research process, into **school-based training, targeted specifically to the needs of individual teachers and schools.** This enabled immediate application of new methodologies, including a successful series of training modules called FAME (Fun Active Methods Enhancement.) The HAS model has demonstrated its validity and efficacy to promote quality health education, but it does require sustained inputs for teacher education and support. Making the model work in challenging school environments requires continuity and commitment in order to maintain the levels and quality of delivery.

- **The core aim of the Child-to-Child approach is to link learning in school with health action at school and at home in the community.** This is achieved through the learning steps described above. HAS' focus on teacher quality has achieved significant gains in promoting the first two steps - *understanding* and *finding out*. Impact on health knowledge and self-esteem has been measured quantitatively, and demonstrates outstanding achievements. Many examples of children's health action have been

noted in school, but it has proved more challenging to measure the extent to which health knowledge translates into health action beyond the school environment. The next phase should develop further mechanisms for measuring health action and changes in health behaviours in children.

- Much sooner than the project plans had envisaged, demand-led outreach and expansion activities have resulted in lessons learned from the HAS research being adapted and applied to other settings both nationally and regionally. This has meant that from a pilot of 5 schools, HAS has already 'gone to scale' in several hundred schools throughout the country through partnerships with local and national NGOs. The HAS team has a significant role in the new applications of their model by providing training, supporting the adaptation of materials for these partner agencies, as well as assisting in monitoring and evaluating their progress. When envisaging the future development and expansion of HAS, this role in providing technical support to other education initiatives, as well as an expanded training role within the Institute for Educational Development, will maximise on the project's potential.

- Implementation of the activities discussed above will, of course, depend upon the crucial human resource gaps in the HAS team at IED being filled. At present, IED is actively seeking to recruit a faculty member for health education to take responsibility for the next phase of development in the HAS initiative

5. Main Findings on *Outcomes* in HAS Schools

- HAS activities have made a significant impact on children's health knowledge and self-esteem, with greatest change noted in the poorly-resourced and semi-rural government school.

- There is some evidence of improved health behaviours, especially within the school environment. Children have been involved in making dustbins, maintaining cleaner latrines and water sources, bringing boiled water to school, bringing healthy food for lunch and buying less snack food from street vendors, achieving a lice-free school, and making toys for younger children. In future, impact on health behaviours should be monitored more systematically in relation to individual health topics.

- While children do talk with their families about health and report taking action, more could be done to foster children's identification with and commitment to their role as health communicators and promoters, both as individuals and as a group.

- Radical impact has been made on improving the school's social environment. Again, the greatest impact has been achieved in the government schools. This relates, in particular, to the relationship between teachers and children, including overt efforts to be inclusive of girls and reduce gender discrimination in class.

- The focus on educational quality issues has produced a transformation in the participation of children in the learning process. Children are actively engaged in discussion and reflection on health topics. There is strong evidence that improved teaching methods in health education are being transferred into the teaching of other subjects.

- **Teachers** have also gained in **knowledge** and **self-esteem**. They report greater **fulfilment in their role, in large** part due to the engagement they now experience with children's interest.

- **There is some evidence of closer linkages between schools and parents,** although these connections need to be more explicitly developed. It is recognised that this process is more challenging in urban areas, where teachers and parents may not come from the same community.

- Apart from activities with the school nurse in one school, it has proved impossible to engage the **school health services** in collaborative work. However, the project has sought to define this function more broadly, looking at ways in which children and teachers can be involved in **health provision within schools**, for example, through First Aid and nutrition activities, as well as with early detection of health problems e.g. sight, hearing, oral health. In one school, teachers and children worked with local health services to support a polio immunisation campaign.

- Although HAS' original focus was on primary school-aged children, in two schools activities have also included pre-school children. Practical activities, such as toy-making, have been conducted in all the pilot schools. The evaluation with children revealed their engagement with some aspects of early childhood care and development.

- In measuring impact and identifying potential constraints to implementation, it is concluded that **the greatest gains can be made in small, poorer resourced schools,** including from the Government sector, in rural areas or close-knit urban communities.

6. Key Recommendations

6.1. Redefining a Strategic Vision

- At the end of this pilot action research phase, the HAS project now needs to take stock and re-evaluate its **strategic vision** within the context of the development aims of the AKU Institute for Educational Development. It is hoped that the recommendations made below will assist in this process. Three concerns have characterised the HAS project's approach and should remain central to its vision:

  Participation of children: continuing to enhance the participation of children in learning and action for health.
  Partnership: with schools, communities and the government and non-governmental agencies working with them, to share the learning and increase the *outreach* of the HAS model.
  Commitment to learning: through a continuation of the action research process.

- **The development and implementation of this work is dependent on the further recruitment of appropriately qualified staff to complement and strengthen the skills** of existing members of the HAS team and to ensure representation on IED's faculty.

6.2. Continuing Action Research

- The HAS project has been able to achieve quality standards through its process of action research. It is important that it be enabled to continue this research focus in order to refine further its methodology. HAS' particular contribution to educational development in Pakistan lies in action research leading to materials development and training on comprehensive school health promotion. It should be stressed that HAS is a research and training (teacher education) group, not an implementing agency. As will be discussed below, this has implications for its future development.

- HAS presents an outstanding model for promoting quality health *education* in the classroom and school. However, it should be supported in continuing action research to refine its model for *comprehensive* school health *promotion*, with a particular research focus on children's health behaviours and the translation of health knowledge into action.

- Children's ability to put health knowledge into practice is influenced by a number of factors. The HAS learning process has demonstrated its ability to strengthen children's health knowledge, their motivation, their self-esteem and life skills. However, factors in the wider environment, such as economic, cultural and other community issues, will still affect children's ability to act. The next phase of HAS' development should also concentrate on identifying key elements of an ***enabling environment*** and on promoting these to support children's health action. This will require a closer involvement of school parents in planning and monitoring children's health activities. It will also be necessary to think beyond the School Health Services to other health providers in the community who might be engaged in supporting children's health action.

- In the next phase, children and parents should be involved more directly as participants in monitoring health activities, in particular feeding back on health behaviours and health action at home. More focus can be given to researching what in the wider environment promotes or inhibits children's ability to act and how impact can be made on these factors.

6.3. Outreach and Dissemination of HAS Model

- It should be stressed that HAS is *not* an implementing agency. It is neither desirable nor necessarily possible for HAS to *expand* its activities beyond a small number of pilot schools for action research purposes (although new schools may be selected). The project has, however, already proved its considerable potential in *outreach*, providing a model for adaptation, as well as training and support to materials development for other agencies, both government and NGO. Essentially, this marks a shift in its role, becoming a facilitator in building capacity in other agencies. The collaboration between HAS and the Sindh Education Foundation provides an excellent example of such productive collaborative work. This builds on HAS' distinctive competencies in action research, training and materials development, but relies on the infrastructure of the partner agency for in-service training and monitoring and support at school level. HAS can also provide a key role in evaluating the school health promotion activities of partner agencies.

- With the research evidence and the set of teacher support materials in health education developed out of the pilot project, HAS now has a major opportunity to

influence policy and practice at a wider level within and beyond Pakistan. The discussions reflected in this report indicate the multiple opportunities for HAS to integrate its approaches and materials into training and curriculum development in the formal and non-formal education sectors. In 1997, IED's first ever Policy Dialogue, with government and NGO partners, discussed the HAS initiative in the broader context of comprehensive school health promotion in Pakistan. A second Policy Dialogue, to share the findings of HAS' action research, was held in 2001, which led to significant outreach work with partners such as the Sindh Education Foundation..

- A further opportunity for dissemination of the HAS methodology would be through the Professional Development Centres (PDCs) of the AKU-IED and the Aga Khan Education Services. These PDCs are based in South and Central Asia, as well as Africa and the Middle East. They provide training and outreach programmes in rural areas, with academic input from IED.

6.4. Sustainability of HAS within the Institute for Educational Development

- The current Phase Two of IED's development programme includes 'Health Education and Health Promotion' as one of its core areas of focus. HAS has sometimes been perceived as a 'stand-alone' project, but in fact its action research has already fed directly into the development of curriculum and teaching of the Health Education modules within IED. This continuing role, of course, depends on representation on Faculty.

- IED is committed to promoting its 'research culture' and has recently formed an Action Research Working Group, to which HAS can make a valuable contribution.

- Discussions with the Director and Department Heads at IED indicate that measures are under consideration to integrate HAS/Health Education and Promotion more closely into IED's core programmes. An Open Learning module for the Masters in Education programme is under development. IED is also considering a Certificate in Education, including one in Health Education, based on student learning hours, rather than just on study located at IED. This flexible approach could accommodate HAS' approach to teaching training, based both in schools and at IED, and would give necessary recognition and accreditation to teachers' professional development.

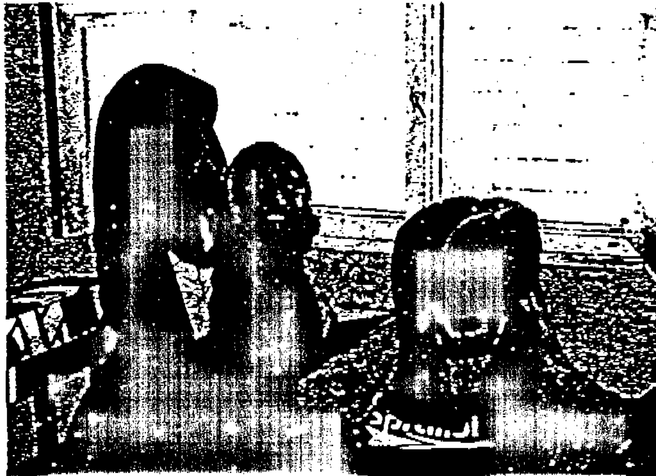
7. Conclusion

The Health Action Schools Project has made a remarkable contribution to the development of active learning approaches for school health education, which have already influenced practice in Pakistan and internationally, through the Child-to-Child network, where it is used as a model for training. Its *Quest for Quality* has involved a courageous and rigorous learning process, which has provided significant developments in the field of Comprehensive School Health Promotion. But this pilot phase has marked just the beginning of HAS' story. **Through its commitment to on-going learning, and with support for its action research, HAS can continue to play a major role in promoting children's participation and active learning for health.** Its methodology and findings should be widely disseminated through partners in Pakistan and internationally via its networks in the Aga Khan Development Network, through the Save the Children Alliance, and through the Child-to-Child Trust. The HAS initiative merits support to enable it to continue to maximise its full potential.

PHOTO REPORT
Children's Participation in Health Learning and Action

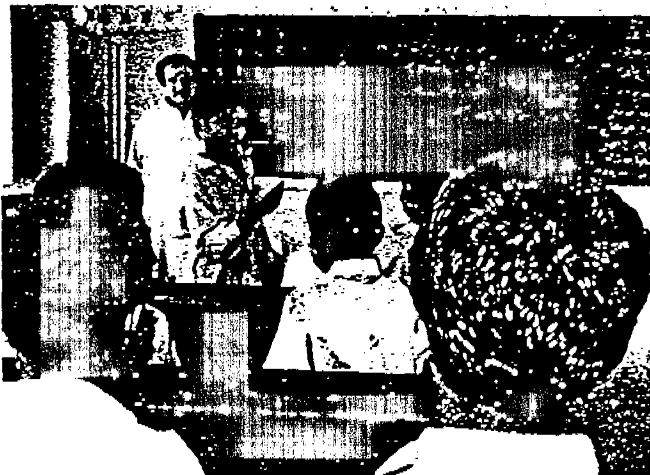
A child explains her drawings of health actions

Challenging usual gender assumptions in school, a girl role plays a doctor, checking a pulse



At a mixed school, girls are actively encouraged, now having the confidence to participate in class discussion

Children perform a drama at a health mela (fair) at IED, involving children, teachers, parents of 5 schools



Children are encouraged to address their responses to each other, not the teacher

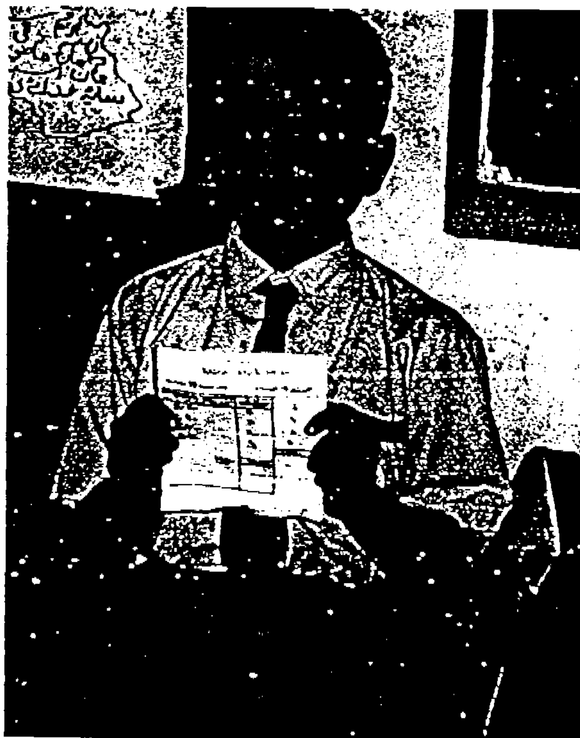
Boys now enjoy a healthy packed lunch from home, rather than junk food from a vendor at the school gates

A girl shows drawings of the vegetables she has grown in pots at home

A boy tells his friends a funny poem about the consequences of eating dirty food

Girls show which of them have grown vegetables at home

Children at a Sindh Education Foundation non-formal school in rural Sindh enjoy a game



A boy shows the results of his group's survey on children wearing glasses

Children at a SEF school in rural Sindh entertain others with role play about two mosquitoes

Children's Participation in the HAS Evaluation

Communication mapping: "Who do we talk with and what do we talk about?"

Using communication maps to find out whether children discuss health issues at home

Draw and write: "How have I helped another child to be healthy and happy?"(health action)

Focus groups: "What changes have we seen in our school since the HAS project began?"

Discussing stories with researchers to check that they understand it correctly

Individual interviews: A boy reflects on his own experience of the HAS project at his school

EVALUATION OF THE HEALTH ACTION SCHOOLS PROJECT

SECTION 1: BACKGROUND TO EVALUATION

1.1. Historical Background to Health Action Schools Project

The Child-to-Child Trust at the Institute of Education, University of London, was approached by the Aga Khan University's Institute for Educational Development (AKU-IED) in 1995 to help develop the area of school health promotion within IED's broader focus on school improvement and quality education. In 1996, after a Needs Analysis, Hawes and Khamis wrote the original proposal entitled "Health Action Schools in Pakistan: A Pilot Research Project" to develop prototypes of health promoting schools in Pakistan. Following two research studies (Kassam-Khamis, 1997, 1998) to assess the health interests, knowledge and needs of Pakistani primary school children and the traditional health beliefs and customs of their school communities, the proposal was revised and a partnership began for a four year pilot project with Save the Children (UK).

1.2. Original Objectives of HAS Project

Objectives as stated in original project document in 1997:

a. To develop prototypes of health promoting schools in Pakistan.
Action research focus: to evaluate the efficacy of a particular methodology. To test the hypothesis that this approach:

- Increases health knowledge and changes health behaviour of children, their families and staff at school
- Increases children's retention in school
- Develops children's ability to participate in learning, to think and to take decisions through the Child-to-Child approach (i.e. improves life skills and self-esteem)
- Improves methodology of teaching health education through linking learning with action
- Shows positive educational results with reference to the well-being of the school and the performance and attitudes of the teachers and children.

b. To share lessons learnt with other systems.

c. To introduce school health education into IED's programmes.

d. Advocacy.
To encourage policy makers to give serious consideration to recommendations resulting from the project. How can content and approaches of HAS be incorporated without involving any major changes in policy or major increase in existing workload of teachers?

1.3. Health Action Schools and Child-to-Child Methodology

Child-to-Child is an educational approach which encourages and enables children and young people to play an active and responsible role in promoting the health and well-being of themselves, their families and communities. It is based on the belief that children, rather than being passive and dependent on adults, can become active participants in promoting the health of their communities.

Child-to-Child is an approach which spans the domains of education and health. It originated in an international partnership between health and education professionals, and is supported by the Institute of Education and Institute of Child Health at the University of London.

Child-to-Child addresses issues of quality in education. It advocates an active learning process, through which children are supported in developing their life skills, including problem-solving, decision-making and communication skills. This enables them to participate fully in identifying problems, and in planning, implementing and evaluating activities to address their own and their school and community needs. While Child-to-Child's focus is on health promotion, the definition of health encompasses the mental, social and emotional health and development of children, as well as their physical health. Child-to-Child is recognised to provide a practical, child-centred approach to the realisation of Children's Rights.

The Child-to-Child Trust, based at the Institute of Education, University of London, has designed a set of resource materials, which illustrate a learning process to promote children's participation in assessing and addressing a range of health and development concerns. The Trust also coordinates a global network of partner organisations in over 70 countries, sharing learning within the group, facilitating exchange of materials and supporting training, programme planning and evaluation.

In 1995, the Child-to-Child Trust was approached by the Aga Khan University's Institute for Educational Development, to support the development of an action research project on health promoting schools. The Trust was involved in the original needs assessment and proposal development, the mid-term review and this final evaluation. Staff from the HAS team have acted as consultants and trainers in programmes in other countries using Child-to-Child approaches. HAS is regularly examined as a case study in international training courses at the Institute of Education. HAS materials are now included on the Child-to-Child website. The Child-to-Child approach has also been taken up and adapted by a number of country programmes within the Save the Children Alliance.

1.4. HAS model and the Rights of the Child

"Working to make the right to education a reality does not simply mean trying to get more children into school, but working for the kind of school experience that will foster children's overall development." (Ogadhoh and Molteno, 1998)[1]

[1] *Ogadhoh, K. and Molteno, M. (1998) 'A Chance in Life'* Save the Children UK, London

The *Quest for Quality* in the HAS initiative reflects, in effect, a commitment to developing schools which foster children's holistic development and thereby fulfil their right to education. HAS's vision of education in general and health education in particular, is grounded on three principles which relate directly to children's rights. HAS seeks to promote an educational approach which is:

- **Relevant** - promoting the right to survival and development (Article 6).
- **Developmental** – promoting the right to an education which enables children to develop to their full potential and participate in responsible activities, at the level of their developing capacities, in their community (Article 29).
- **Inclusive** – Maintaining the right of all children to education (Article 28) in upholding the principle of non-discrimination (Article 2). *(See Ogadbob and Molteno, 1998)*

1.5. National Context for HAS Project

The Pakistan government education policy states that health education is a priority area, but does not have actual strategies in place to translate this into practice. Two health education curricula (1974 and 1995) have been produced by the government. These are somewhat prescriptive, but do give licence for schools to promote health. The Health Action Schools project is therefore making an important contribution to national educational development through its research on and refinement of a model, materials and training approaches for health education in the context of Pakistan. The contrasting schools - government, private and community-based, formal and non-formal, urban and rural - which have been involved in HAS activities reflect the range of education contexts in the country. The primary school gross enrolment ratio is 84:100. However, only 50% of primary school entrants reach Grade Five.

The health status in Pakistan also highlights the need for effective health education and health promotion initiatives linking school and community. The under-five mortality rate is 112 per 1000 and the infant mortality rate is 84. 26% of infants are underweight. 54% of children are fully immunised at one year. The Oral Rehydration Therapy use rate is 48%. Adequate sanitation facilities are used by 61% of the population. The HAS project has addressed both national and local health priorities through its Child-to-Child activities.[2]

1.6. Institutional Context of HAS Project

The Aga Khan University's Institute for Educational Development (AKU-IED) identified Health Education and Health Promotion as a new area of emphasis in its Phase II proposal (2000-2005). It also stated that new priority areas involve collaborative research work across the University, with health education at IED linking well with the faculty of Health Sciences. HAS is viewed as intersectoral and multidimensional, linked to other areas identified as emerging needs within continuing programmes at IED, including Early Childhood Development, Special and Inclusive Education, Gender

[2] Statistics for Pakistan in 1999 taken from UNICEF's State of the World's Children 2001.

Studies, Environmental Education, Curriculum Studies and Monitoring, Evaluation and Assessment.

1.7. Linkages with Save the Children UK

As stated in its 2001 annual report, Save the Children (UK) works with children and young people - involving them in finding solutions to the problems they face. It focuses on encouraging children to be active citizens - by finding out their views, developing young people's skills, and supporting them to take action to improve their lives. Save the Children's vision is therefore fully in line with the Child-to-Child approach adapted by HAS.

Save the Children has adapted and integrated Child-to-Child concepts and methods into its country programme activities in a number of countries. Save the Children in Pakistan has been a committed partner to HAS since 1997, securing funding for the project, but also being actively involved in its strategic development. It is hoped that the lessons learned from HAS' action research will be widely disseminated throughout the Save the Children Alliance to inform other programmes using Child-to-Child approaches.

The HAS project falls in the core area of Education for Save the Children (UK). According to the SC-UK Country Strategy Plan (CSP) for Pakistan, the HAS project fulfils all of the objectives outlined in its education component, either directly or indirectly.

The first education objective according to the CSP is to contribute towards making quality basic education for all children a higher priority at national level by influencing UN agencies, Education Ministries, donors and politicians, resulting in increased access to quality basic education. The HAS project has been able to open dialogue with government, both at the federal and provincial level, through its policy dialogues and significantly influence the curriculum at the provincial level. Since the HAS project is one of the AKU-IED research initiatives, the project research findings and impact are documented and disseminated both at national and international levels.

The second objective of the CSP **is to develop and implement replicable approaches and challenging innovations for provision of quality basic primary education for marginalized groups of children (working children, disabled children, minorities, and girls).** The project has demonstrated that it is easily replicable and has proven most successful and effective in small rural settings where children are most marginalized. The project has also worked well in government schools, which also cater to marginalized children, and has impacted on the overall teaching and learning practices within these schools.

The third objective is to **promote the right-based approaches to education within programmes and policies of key stakeholders, in particular with UNICEF and the Save the Children Alliance, and to develop and share good practice examples of quality non-formal basic education, including life skills training for out-of-school children.** The research on HAS clearly indicates that the CTC approach not only increases children's participation in class but also has directly impacted on their self-esteem. There is data indicating a positive correlation between children's attendance on

days health is taught and overall truancy and dropout rates within a specific school. All these factors link to the rights-based programming. Teaching health education through the Child-to-Child approach also promotes the development of many life skills. The programme has been initiated in the non-formal sector, through the Sindh Education Foundation. The application of the HAS approach in non-formal education is an area for consideration in the next phase for SC-UK, with its non-formal projects in Sindh and Punjab.

1.8. Terms of Reference for the HAS Evaluation

1. To conduct a participatory, qualitative evaluation of the process and outcomes of the Health Action Schools Project, Karachi.

2. To assess and advise on the future sustainability of the Heath Action Schools Project, including issues relating to:
   - 2.1 Materials development and curriculum development
   - 2.2 Expansion and outreach
   - 2.3 Activities of the Child-to-Child Resource Centre
   - 2.4 Institutionalisation of the initiative

1.9. Audience for this Report

- Aga Khan University's Institute for Educational Development
- HAS team and HAS partner schools
- Other faculties at the Aga Khan University
- Aga Khan Development Network, including Aga Khan Foundation, Aga Khan Education Services
- Save the Children (UK) country, regional and head office
- Save the Children Alliance
- HAS partners, including Sindh Education Foundation, GTZ, WASEP, UNICEF, Ikea.
- Education Department (Sindh) and Federal Ministry for Education, Government of Pakistan
- National Institute for Teacher Education and Provincial Institutes for Teacher Education
- Child-to-Child Trust and its international network of partners
- Other national and international programmes working on school health promotion.

SECTION 2: RESEARCH METHODOLOGY

2.1. HAS as an Action Research Project

As an action research project, HAS has systematically collected an extensive body of data, both qualitative and quantitative. It is probably the most comprehensively documented initiative in the Child-to-Child network. The scope and quality of this data, collected before, during and after the intervention, has provided a major focus for this evaluation through an analysis of existing documentation. The range of research studies are listed in section 2.3.

2.2. Research Methodology

However, in consultation with the HAS team, it was felt that further primary research was required to enable a more participatory analysis with the main stakeholders on the process and outcomes of the project. Above all, it was considered vital to hear the voices of children and their perspectives on HAS. A combination of child-centred participatory research tools were used to ensure that the evaluation focused on the views and experiences of children. Gender differentiated data was collected and analysed accordingly.

A range of qualitative tools were used to enable the *triangulation* of findings within and between the main stakeholder groups: children, teachers, school heads, parents, trainers, programme managers, and partners in government and NGOs, staff at Save the Children in Karachi and Islamabad, and directors and faculty members at the Institute for Educational Development. Data elicited from different stakeholders has been triangulated, as far as possible, across methods of data as well as sources of data. Table 2, describing research tools used with different stakeholders, provides evidence of triangulation.

The timing of the evaluation mission, during a tense political situation, meant that community visits within Karachi were not possible (although it was possible to visit two communities in rural Sindh). There is therefore a gap in data on parents' perceptions of HAS and in triangulation of children's reported health action at home. It is recommended that this gap, which is also reflected in the action research data after the initial baseline study, forms a central aspect of future research.

TABLE 1: Number and characteristics of stakeholder respondents

Stakeholder group	No. of individuals	Description
Children in HAS schools	114	Girls of Cl. 5 - *Atiya Bai* Girls & boys of Cl. 4 & 5 - *Pir M'fooz* Girls & boys of Cl. 5 & 8 - *Metroville* Boys of Cl. 4 & 5 - *SMS Boys* Girls & boys of Cl. 3 - *Generations* Ages 8-14
Health Coordinators & teachers of HAS schools	11	Combination of teachers new and old to HAS project - representing all 5 schools
Headteachers	5	Representing all 5 HAS schools
School nurse	1	SMS school nurse
Parents	3	From SMS and Generations *
Directors from IED	6	Representing different management and faculty positions
HAS staff	6	Current and past staff members
Staff from SC – UK	4	From Karachi and Islamabad offices
Child-to-Child Trust advisers	2	Hugh Hawes, former CTC Director William Gibbs, current Chairman
Partners from expansion schools in Karachi	12	Representing a range of 'self-expansion' schools supported by HAS
Partners from HAS Steering Committee	9	Representing different faculties of AKU, government and NGO partners
Provincial Minister for Education (Sindh) and Managing Director of Sindh Education Foundation (SEF)	1	Professor Anita Ghulam Ali
Managers, trainers, field staff and teachers of SEF	7	1 Head office manager 2 Field managers 1 Education coordinator in Sehwan 2 non-formal teachers in Sehwan

** Although parents from all schools were invited to the Health Fair ('Mela') at IED, only 3 were able to come. Because of the tense political situation at that time, it was not possible for the evaluation team to visit community settings in Karachi. Informal discussions were held with community members in rural Sindh. Further research is needed with families and communities linked to HAS schools to gain a complete picture of children's health communication and action.*

TABLE 2: Qualitative research tools used for stakeholder groups

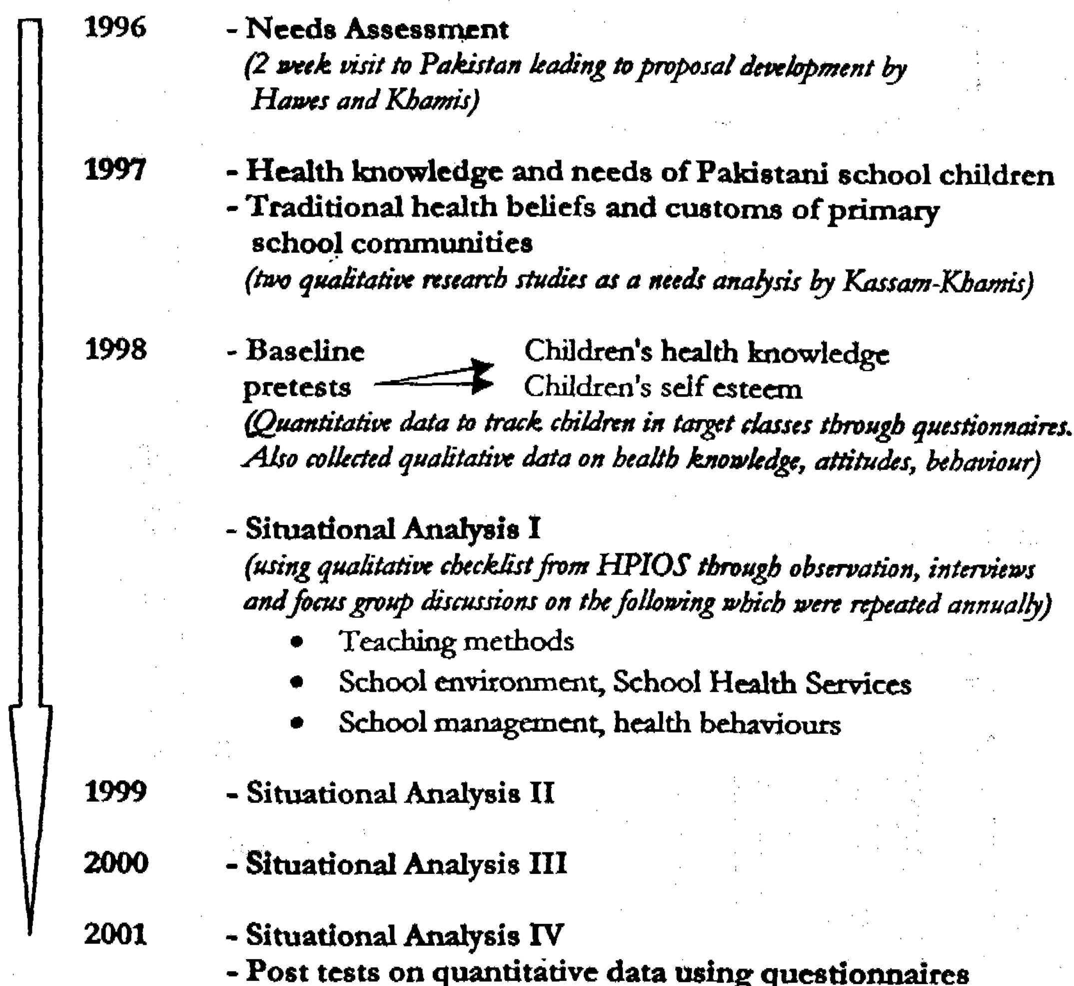
Stakeholder group	Research tools used	Data elicited
Children in HAS schools	Spontaneous drawing & writing: *My health actions*	Examples of children's actions on health promotion
	Communication mapping: *Whom do I talk with? What do we talk about?*	Children's communication with family, friends and teachers: *Are health messages being communicated?*
	Focus group to discuss changes over time: *Our school before and after HAS*	Children's perceptions of impact of HAS in themselves, their teachers and school
	Focus group: *Charting children's participation in learning process*	Children's perception of and participation in learning process
	Individual interviews – *children's stories about their experience of HAS*	Case studies of individual's perceptions and experience of HAS
	Observation	Practice on hygiene, safe water and nutrition
Health Coordinators & headteachers of HAS schools	Mapping changes over time: *Our school before and after HAS*	Teachers' perceptions of impact of HAS on themselves, children and school
(11 Health Coordinators and headteachers attended a review workshop at IED - 5 teachers were interviewed or observed teaching in school)	Card collection of ideas on SWOC analysis	Teachers' perceptions of strengths, weaknesses, opportunities and constraints of HAS
	Focus group: experience of HAS: incl training, steps in learning process, personal motivation, etc.	Teachers' understanding of HAS and Child-to-Child concepts; children's participation in learning process.
	Key informant interviews With headteachers, health coordinators and teachers	As above. In depth account or 'story' of teacher's experience with HAS
	Lesson observation	Teachers' capabilities in following active learning process; attitudes to children; gender issues, etc.

Stakeholder group	Research tools used	Date elicited
School nurse	Key informant interview	In depth account or 'story' of nurse's experience with HAS
Parents	Key informant interviews	Perceptions of benefits of HAS to child and family. *(Not possible to conduct sufficient interviews)*
Directors from IED	Key informant interviews	Perceptions of HAS and role within IED; potential for future development and integration
Current and past HAS staff members	Key informant interviews	Perceptions of HAS – process, outcomes and future development
Staff from SC - UK	SWOC analysis	Programme and funding partner's perceptions of HAS' strengths, weaknesses, opportunities, constraints
Child-to-Child Trust advisers	Key informant interviews	Perceptions of HAS from original conceptual development and mid-term review
Partners from expansion schools in Karachi	SWOC analysis	Programme partners' perceptions of HAS' strengths, weaknesses, opportunities and constraints
Partners from HAS Steering Committee	Observation of meeting	Perceptions of partners on future potential and development of HAS, including integration of concepts in other programmes.
Provincial Minister for Education (Sindh) and Managing Director of Sindh Ed. Foundation	Key informant interview	Perceptions of HAS; potential for integration in formal education system and in SEF non-formal education system
Managers, trainers, field staff and teachers of Sindh Education Foundation	Key informant interviews	HAS team's role in adaptation of HAS concepts, training, and materials development for SEF schools; experience of implementation
	Lesson observation	Teacher's capabilities in following active learning process; attitudes to children; gender issues of CTC; learning environment; etc.

In addition:

- **Observation of physical environment in 5 pilot schools**
- **Review of the HAS project's extensive documentation, with quantitative and qualitative data from a number of research studies, cited below in 2.3.**

2.3. Summary of HAS Research Studies



2.4. Sampling

Previous HAS research has involved all children in the participating classes of the five pilot schools. This quantitative data therefore gives accurate data on children's knowledge and self-esteem. For this short evaluation mission, two of the five schools were purposively selected for in-depth qualitative research: SMS Boys School of the Aga Khan Education Service, and Pir Mehfooz, a government school (now known as Ghousia Masjid Government Primary School). Atiya Bai school was visited only to observe the learning and physical environment and hold a focus group discussion with teachers. Teachers and children from Generations School and Metroville Community School attended the Health *Mela* (fair) at IED, while the headteachers and health coordinators also participated in a review workshop. Selected children from Atiya Bai, Generations and Metroville completed the communication mapping exercise. 53 children from Metroville also completed the "draw and write" health action exercise.

SECTION 3: EVALUATION OF HAS PROJECT'S *PROCESS*

"Documentation during the project will be given priority, as the process to improving the quality of schools is as important as the product/outcome of school improvement itself, for future expansion. This will help in highlighting the enabling and inhibiting factors." (HAS project proposal, 1997)

3.1. Description of 5 pilot schools

At the start of the initiative, the HAS team visited a wide range of schools in Karachi (n=40), looking for a selection of schools with different characteristics in which to pilot the HAS approach. The following 5 schools voluntarily 'opted in' to the project. The context and conditions for each school vary widely. Each school has brought its own opportunities and problems and the HAS project has evolved differently in response to this.

Pir Mehfooz: A government school in a semi-rural area on the edge of Karachi. Mixed girls and boys. All male teachers. This school has now been renamed as Ghousia Masjid Government Primary School.

Attiya Bai: A government school in a poor urban area ("kutchi abbadis" or squatter settlement.) Supported by a local NGO. Girls only. All female teachers.

Metroville: A community school in mixed urban area. Mixed boys and girls. Male and female teachers.

Sultan Mohammad Shah: An Aga Khan Education Services school, sited next to the IED campus. Double shift - girls in the morning and boys in the afternoon. HAS intervention with the boys' section (although HAS has diffused automatically into the girls' section). Mostly female teachers.

Generations: private, fee-paying, well-resourced school. Mixed girls and boys. Female staff.

3.2. Original Process Objectives

In the original project proposal, process objectives aimed to achieve the following:

- Develop models of in-service training – short courses and school-based - encouraging teachers to help each other and share ideas.
- Develop teaching materials to support heads and teachers to organise health action, introduce relevant content, promote effective methods for active thinking and linking learning in classroom with action in home and community.
- Develop simple and effective systems for monitoring, involving participation of heads, teachers, children and even parents.
- Develop more responsive and innovative management structures in schools.

A fifth issue should be added to this list, since it has major implications for the implementation of the HAS model in schools:

- Develop models for the integration of health education and health promotion within the school curriculum and co-curricula activities.

The following sections examine whether these process objectives have been achieved and seek to identify the *enabling* and *inhibiting* factors. Discussion in this section will focus mainly on the five schools involved in the HAS action research intervention. However, where relevant, comparisons will be drawn from experience in the new outreach schools.

3.3. Models of In-Service Training and Teacher Support

3.3.1. Key Findings

- The primary focus of HAS activities has been on upgrading teachers' skills. Although the entry-point has been school health promotion, training has been used as a vehicle for school improvement in general, addressing issues of quality.

- From its inception, HAS envisaged testing different models of training, which were developed through the action research process. Two main models emerged – firstly, short courses based at IED for teachers from different schools to learn together and share experiences, and, secondly, school-based teaching, which is immediate and responsive to the needs of individual schools.

"Through HAS training we have learnt a better use of active methods. Before there was a lack of proper planning. We have learnt the CTC approach and are implementing better lesson planning using the six steps." (Health Coordinator, Metroville School)

- All teachers stated that school-based training was more effective and the concepts were immediately applicable in classroom teaching. However, they also maintained that training at IED can be motivating, in exposing teachers to other learning environments and enabling them to share experiences with other teachers.

"We need an initial 2-3 day orientation but then training should happen through lesson observations and school support and monitoring. This supports us in our teaching at the time we are teaching it."
(Deputy Head and former Health Coordinator, SMS Boys' School)

"I think we learn much more from trainings and support that happen in our school. It is practical and contextual and we learn that promoting health is possible in our own resources. When trainings happen in IED *we come, we note, but we don't do."* (Teacher at Pir Mehfooz school.)

- Early progress reports indicate the difficulty of getting teachers to attend centralised training.

"It has been very difficult to get teachers to attend training as HAS has been very conscious about sustainability and offers no monetary incentives. Teachers at Atiya Bai school categorically told us 'We stop being teachers at 12.00 o'clock.'" (Sept. 1998 Progress Report to SC-UK)

- The fact that teachers are now ready to attend trainings and meetings at school or at IED is a measure of the motivation and commitment that the HAS team has generated over the years. This has in large part been brought about by their responsiveness to the needs and context of the individual schools with which they work. School based training has been responsible for this mutual commitment, for the HAS team has demonstrated its understanding of the priorities and values of teachers and school heads, of the unique needs of each school and of the flexible timing required to fit training into the school day.

"I like the way the HAS project has evolved all these 3 years, completely involving the concerned schools. As a result, the whole project was quite 'tailor made' for us at Generations." (Headteacher, Generations School)

- **Training in HAS is regarded as a continuous, developmental process.** Using the same principles of active learning, teachers are enabled, through the training process, to learn by doing. In school-based training, they can plan and try out new activities immediately with their own classes. Monitoring by the HAS team enables teachers to have ongoing feedback and opportunities to reflect on and improve the quality of their teaching.

- The concept of training has also included intensive, individualised support for lesson planning and for the annual development of School Health Action Plans (SHAPs).

- Beyond training in Child-to-Child approaches and the development of SHAPs, a particularly popular model of HAS training has developed called **FAME** (Fun Active Methods Enhancement). These two hour school-based sessions are requested by teachers, who select a specific method from a 'menu'. The sessions are open to all teachers, not just health teachers. The value of FAME training sessions was highlighted by most teacher respondents in the evaluation.

"I feel the FAME sessions really made me use and generate new methods in my teaching. I had heard of and learnt about these methods before – stories, puppets, pictures, SMART objectives, 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. For example, I started using stories in teaching farming in social studies because I noticed children listened more. They were more involved and attentive and participated more." (Deputy Head and former Health Coordinator. SMS Boys' School)

- School-based training therefore **benefits the teaching of other subjects** across the curriculum. Health education, not being perceived as a 'high-status' subject, provides a safe area for teachers to experiment with more active methods. As they gain more confidence, these methods are then applied to other subject areas.

- The HAS team and teachers themselves identified **constant teacher turnover** as a principle constraint for HAS. HAS needs to respond to these constraints through **other models of teacher support through peer training.** Trained and experienced HAS teachers, particularly the health coordinators, spontaneously volunteered themselves as 'master trainers'. With some further skills development, they can become trainers or mentors for new teachers. In some cases this is already happening. For example, one of the lessons observed by the evaluation team at SMS

Boys School was delivered by a new teacher, who was guided in planning the lesson by the health coordinator, using the new Topic Cards developed by HAS.

- A further response by the HAS team to the problem of teacher turnover is the creation of the HAS 'starter kit', which provides a simple orientation to the concept of the Health Action School and includes topic cards with detailed lesson plans. The extent to which these can be used by untrained teachers is yet to be investigated fully, but piloting shows that the Topic cards are implemented remarkably well. (See Section 3.5. below on materials development.)

- Even where HAS teachers are highly motivated, they accept the reality that competing priorities in schools could lead to a reduction of health activities if support from the HAS team is completely withdrawn. As a minimum, health coordinators said that the HAS team should continue to support the development of the annual School Health Action Plan (SHAP) and should make one further monitoring visit after six months.

- Children recognise the value of HAS training when they compare the approach of teachers of health with teachers of other subjects.

'Our teachers now use more activities. They have more health knowledge. Before the teachers were strict, but there was no hygiene in school and the teachers did not say anything." (Source: focus group with boys at SMS Boys School)

3.3.2. Models of Training - Main Conclusions and Recommendations

- School-based training is most effective and readily applied in daily teaching. However, some initial centralised training is motivating for teachers to be exposed to IED, to access the Child-to-Child Resource Centre and to learn from others' experiences.

- School-based training should be directly responsive to the needs expressed by the head and teachers. The FAME strategy provides an excellent model in which teachers select the topics for training.

- Whilst school-based training is resource-intensive, it has the greatest potential for upgrading quality standards in schools. HAS should now focus on developing the teacher training skills of teachers they have already trained to create a multiplier effect. These experienced teachers can support others within their own schools and, if appropriate, in other schools.

- It should also be emphasised that HAS is an action research project, not a model for replication, as such. The five pilot schools are spread out across Karachi and school-based training has required resource-intensive effort on the part of the HAS team. More cost-effective and sustainable forms of training and in-school support are demonstrated by the partner organisations which have adapted the HAS model. The Sindh Education Foundation Community Schools, for example, have an existing infrastructure for teacher training, as well as field staff to provide appropriate levels of support to schools in a localised cluster.

3.4. Refining an active learning process

3.4.1. Key Findings

- **HAS used the Child-to-Child approach** as a basis for developing its sequence of steps for active learning. These follow the following stages:

    - **Promoting understanding** of the health topic in class: teachers introduce the topic through 'starter activities', i.e. stories, pictures, poems and discussion.

    - Setting survey questions and then doing a survey for homework to find **out more** about how this problem affects the school and/or community

    - **Coming back together in class to discuss what we found out and plan action.** Findings from the survey are shown on a graph.

    - **Taking action** alone or in groups in our home, school and/or community to promote health. Examples from HAS include drama and puppet shows, songs and poems, and practical action, like making ORS or bringing parents and younger siblings for an immunisation camp.

    - **Evaluating** our action and doing it better.

- It is the **sequence** of learning stages which is significant, relating learning in the classroom to children's life experience at school and at home. However, through action research, the HAS team has simplified these learning steps to become more accessible to teachers. HAS concluded that the Child-to-Child six-step approach could be simplified to four steps in the context of their schools. This provides the structure for the new Topic Cards developed by HAS. (With the Sindh Education Foundation and Water and Sanitation Extension Programme (WASEP) 470in the Northern Areas and Chitral the process has been further reduced to three steps, with the final evaluation step omitted. This decision was made by the partner agencies considering the current capacities of their teachers.)

- Most teachers interviewed knew the sequence of steps, and could recall how they followed these steps in the most recent topic they taught. Their account of the teaching/learning process was then triangulated through focus groups with children, in which they recounted their experience of learning the recent topic. Through this research with teachers and children and in lessons observed during the evaluation, there is clear evidence that the schools are following the ***understanding*** and ***finding out*** steps.

- **Many examples of health action** have been noted, particularly *in school*. Children have been involved in making dustbins, maintaining cleaner latrines and water sources, bringing boiled water to school, bringing healthy food for lunch and buying less snack food from street vendors, achieving a lice-free school, and making toys for younger children. Children also gave concrete examples of how, as individuals, they were motivated to promote new health ideas *at home*. The 'draw and write' exercise provides evidence of the kind of action children have taken. (See section 4.3.4.) In

one school, teachers and children had supported health services in promoting a polio immunisation campaign.

- In some cases, however, it was noted that while possible action was discussed during class, greater emphasis needs to be given to ensure that health action is actually implemented. Because such action takes place beyond the classroom, it requires additional effort from teachers and children. It will be important for this step to be closely monitored by teachers, children and programme staff, in relation to each individual health topic, to ensure that health learning is always followed through to health action. This application of learning is a vital stage in the process, both for educational and health promotion outcomes

- A key issue affecting how the health lessons were delivered was its location on the timetable: designated a specific time or integrated across the curriculum. The two government schools had been issued a directive to allocate a specific time for health education. The other schools had sought to integrate health into the teaching of other subjects - ie. science and social studies. In SMS school, the responsibility for HAS teaching sometimes changed between subject teachers half way through the term. This has created problems with continuity, but also with a sense of ownership and responsibility amongst teachers. As discussed in Section 4, the model achieving greatest impact is the one where health education has been allocated a separate space on the timetable and has been embraced as a 'whole school' initiative, not just for one grade.

3.4.2. Main conclusions and recommendations

- In terms of improving teacher quality, HAS appears to have rightly focused attention on the first two steps: *understanding* and *finding out more*. Excellent 'starter activity' materials (stories, posters, games, etc.) have been developed to promote active learning and understanding of the health topic. Teachers also demonstrate that they understand and are able to use simple research methods (e.g. surveys) with children for the step of *finding out more*.

- While there is evidence that children have promoted a range of positive health actions, increased emphasis can now be given to help teachers always to follow through the full sequence of steps, ensuring that health *action* is planned and actually implemented and evaluated by children. (See Section 4.3.4. on children's health actions.)

- A focus on health action needs to bear in mind the enabling and inhibiting factors for children in themselves and in their environment. The potential for children to take health action largely depends on three critical factors – the children's confidence in their own abilities; the teachers' belief in children's capacities; and parents' belief in children's capacities and acceptance of their role as health promoters. *(ref. Review of Child-to-Child activities with SC-UK Nepal, 1997.)* As discussion on the *outcomes* of the HAS intervention demonstrate, much has been achieved in strengthening children's confidence and self-esteem, and in shifting teachers' attitudes to children. More attention may be required in bringing about a positive change in parental attitudes to children. This requires further research.

- The impact which the HAS intervention has made on improving quality in a difficult educational environment is very significant, the more so in the most poorly resourced government schools with the least-trained teachers. These achievements are discussed in Section 4 on *outcomes*.

3.5. Health education materials and curriculum development

3.5.1. Key findings

- The Child-to-Child Resource Book, with activity sheets, was translated by HAS as a key resource material. This Urdu translation, *Sehat-ki-batein*, was well received, but was found to be too complex for adaptation by teachers into simple lesson plans.

- The HAS team recognised that for the experience of the HAS project to be more widely accessed, a simpler set of materials was required. The HAS team has now developed a kit containing a guide to being a Health Action School and a series of 30 Topic Cards on a range of health topics. These topic cards have been developed out of extensive work on developing, testing and revising materials based on HAS action research in schools. The topic cards provide a clear and usable 'string' of four lesson plans following their Four Step approach.

- The topic cards help teachers to teach a string of lessons following the learning sequence. In one lesson observed, an untrained teacher had been supported by the school health coordinator in planning a lesson using a topic card. The teacher was checking that the children actually understood the concept of the four steps.

- After testing, the topic cards are currently being finalised and translated. Teachers report finding the cards easy to use, either directly, or as a basis for their own lesson planning.

- The topic cards have been designed according to an overall scope and sequence chart for a health education curriculum for primary schools. (See Appendix 1.)

3.5.2. Main conclusions and recommendations

- Action research has been used in HAS to develop materials which are of high quality and relevant to the context and needs of their teachers and schools.

- The health content of the Topic Cards should be checked with the new version of *Facts for Life*, to ensure they are in line with the latest health information. In particular attention needs to be given to the card on HIV/AIDS to ensure that it presents accurate information, while respecting the cultural context. Assumptions about cultural sensitivities in discussing sexual transmission need to be tested with the audience and compared with other HIV/AIDS materials produced for Pakistan. (In one focus group, female teachers described how they were trying to allude to preventing sexual transmission by talking of the practice of *purdah*. They clearly

perceived the need to discuss all forms of HIV transmission and needed further support to do so appropriately.)

- The proposed second volume of HAS's resource manual, *Sehat-ki-batein*, should include the HAS starter kit, topic cards, and curriculum scope and sequence charts. It can also include a simplified version of the FAME (Fun Active Methods Enhancement) materials. The format for these material should be discussed with key stakeholders: the options are either for a single manual (with a pocket at the back for posters, etc., to use in class); or a fabric bag containing separate topic cards and other laminated materials. It was noted on the field trip to rural Sindh that the resource manual developed by the Sindh Education Foundation with support from HAS is accessible to and well-used by teachers.

- While in an ideal world, schools select their own health priorities and develop activities in response to what the teachers and children find out about their immediate health context, the HAS materials recognise the reality that teachers in Pakistan need specific and simple guidelines to gain confidence in using active learning methods. For the HAS learning approach to be more widely accessible, it is necessary to begin with the more prescriptive but interactive step-by-step guidelines laid down in the Topic Cards. It will not be possible for other schools to have the kind of intensive support that the HAS team has provided to its five pilot schools. The HAS Topic Cards will provide the basic orientation to enable teachers to become more confident in using these ideas. Only then will they be able to experiment with more independence and creativity in planning their own topics with the children.

- A clear strategy needs to be developed for the wider dissemination of HAS's health education materials. (See Section 5 on Expansion and Outreach.)

3.6. Monitoring systems

3.6.1. Key findings

- As an action research project, HAS has evolved a detailed system for monitoring and documenting the process in each school. This includes monitoring tools used by teachers and children, as well as those used by the HAS team for on-going monitoring. At school level, teachers and children initially monitored using an environmental checklist. However, this was time-consuming and was later dropped. Teachers monitored their activities through the feedback space on their lesson plans, as well as through monthly school-based meetings to review work and progress on the School Health Action Plans. The HAS team monitored progress using lesson observation forms and feedback discussions with individual teachers. They also facilitated 'experience sharing' meetings every six months for all the schools at IED. The Situational Analysis tool was used in each school annually. Finally, the project scheduled externally facilitated mid-term and final evaluations as well as pre and post tests at the start and end of the pilot project.

- The HAS office has therefore maintained detailed files on each school, which are a mine of data and include: School Health Action Plans; a tracking record for each

teacher; file notes on meetings and discussions; correspondence; training reports; lessons plans and observation notes; examples of children's work; annual Situational Analysis, etc.

- Although Step 4 of the HAS learning process envisages children being involved in evaluating their activities, teachers have been found to be somewhat resistant to this idea. Evaluation is thought to be the task of teachers, not children. This will require further inputs to convince teachers of the importance of children's participation in evaluation.

3.6.2. Main conclusions and recommendations

- While this level of detail has been necessary for the action research process, it will be important to consider what are the minimum monitoring requirements and key tools that should be in place to track quality and process in new schools and education programmes adopting the HAS approach. This should consider both methods for teachers and children to monitor their own activities, as well as effective tools for programme staff to support teachers and monitor progress.

- Particular training modules could be developed to focus on approaches to children's participation in monitoring and evaluation. A number of PLA (Participatory Learning and Action) tools have been adapted for use with children, by the Child-to-Child Trust, Save the Children and other programmes. These *child-centred participatory research methods* could form the basis for such training.

- HAS' original process objectives envisaged the development of *'simple and effective systems for monitoring, involving the participation of heads, teachers, children and even parents.'* In focus groups, teachers noted how they had become more conscious of tracking their own teaching activities and progress. Greater focus now needs to be given to involving both children, as discussed above, and indeed parents in monitoring the Health Action Schools.

3.7. Educational management structures

- The project's process objectives sought to *'develop more responsive and innovative management structures in schools'*. The excessive rates of staff turnover experienced amongst teachers and, in particular, amongst heads in the HAS schools has made it difficult to have a major impact on management structures. (Only one school has the same head who was there when the project began). However, teachers have noted how participation in the HAS project has provided them with the skills and confidence to take on greater leadership roles. Three HAS health coordinators have subsequently been promoted to senior management positions, as deputy heads. HAS team members wonder whether this is a phenomenon where, through HAS, they bring out the 'best' in teachers and then the 'best' teachers are promoted to managers and hence teach less! If these teachers can now be helped to develop their own professional training skills and be mandated to train and support other teachers in their schools, then the investment in their HAS training will not have been lost. Some impact may also be made on how educational managers in schools perceive their role and responsibility to promote quality in the classroom.

- The role of the Health Coordinator was also crucial in ensuring that the head did not feel burdened by the HAS programme and hence there was no block to it becoming part of the system. The heads were amenable to timetabling health education, either as a separate subject or integrated within other subjects.

- Initially, the HAS team sought to get parents involved in school management, but faced major resistance from school heads. At present, the government schools have non-functioning Parent-Teacher Associations, whilst the private schools have no formal parent representation at all. As discussed below in Section 4.5, there has been a shift in teachers' attitudes to parents, so it may be possible for the project to revisit this issue. Participation of parents in decision making and management processes at school level on health education is regarded as a key issue in effective school health promotion which links the learning experience with real life.

3.8. Main constraints

- The achievements of the HAS project have been won against major constraints. Dr Hugh Hawes, co-founder of the Child-to-Child Trust, who assisted the HAS team in developing its original project concept, stated that, in his view, the HAS project is operating in one of the most challenging educational environments. The following account of one of HAS' 'success stories' - a government teacher who became a Health Coordinator - is a sobering reminder of the harsh realities of this context in the school and wider community.

A Government Teacher's Story

"This is a story of a Government teacher in a health action school. The only teacher we have in either of our pilot government schools who has been with us since the start. The only teacher who has attended all of our trainings. Sometimes, the only teacher in the school handling 5 classes of children, speaking Balochi and Sindhi, and their siblings in a pre-school class. His pay is little, his hope is much. He volunteered to become the Health Co-ordinator of his school and manages the school health programme.

Our teacher has worked under 4 different head teachers over the past 3 years. He has become frustrated at being told by other teachers that he is a bad teacher because he has got rid of his stick and now his children are undisciplined. His new Headmaster tells him that his children make too much noise and do not study. They are always drawing (on the back of old calendars he collects and used paper that the HAS team occasionally gives him), or acting in role-plays, or playing games and making puppets. Our teacher believes children can learn through play.

But one day our Government teacher lost his cool and told the head master that teaching could be fun. Should be fun! He challenged authority and that got him into a lot of trouble. You see, the head was also a member of the teacher's association that held a lot of political clout in the village. Our teacher's door was knocked upon one night and he, and his family, was reminded who the Head was in the school.

Quite rightly, our Government teacher was frightened and the next day with his brother showed up at the IED asking to see the Principal Investigator of the HAS team. He pleaded that she write him a "No Objection Certificate" so that the Government would release him from the project and the school for him

to apply do a BEd. But the truth was that he never really wanted to do a BEd. He felt he would learn as much, or as little, from it as from the Primary Teacher's Certificate he had done, where lesson observations by his teachers meant being given a score at the end of the lesson on a piece of paper. This was so unlike the feedback and debriefing and suggestions by HAS team members who observed his health lessons and praised him for his efforts. So he never enrolled for his BEd. And the next alternative was a transfer to another school...but probably not a different thinking head.

The HAS team was depressed. What was the point? Could any difference ever be made in the government system without change at all levels? They approached the Directorate of Primary Education through their steering committee deputy director who kindly visited the school with the Principal Investigator. On arrival at the school they found present not only all the teachers but also 4 supervisors, the District and Assistant District Education Officers. The battle began between the Head and our Health Co-ordinator, the government teacher. Everybody forgot about the children. The voices of the 10 adults drowned that of the 100 children. How could a school be health promoting when teachers had no respect for each other? Whose responsibility was the health of the children? Did a government school need financial resources to be health promoting...or just the will?

These questions were asked and debated until the adults all realised they had forgotten the main stake holders of the education system, the children, THEIR children, who by now had gone home to take care of their younger brothers and sisters. The Head and the government teacher hugged each other, said they would keep out of each other's way but be good role models for the children.

Today the Head sits with the teachers to plan their health topics. He even suggests relevant health themes and activities for the School Health Action Plan. He is slowly becoming convinced that children can learn and have fun at the same time. When asked why, he says more children come to school on Fridays, for Fridays are the days on which health is taught. The Head himself has now begun teaching using pictures and "low cost high thought" materials in classes on other days. Children now have face to face interaction as they sit in groups rather than face to back reaction.

When the mid term reviewer asked our government teacher why he continued to participate in the health action schools programme even though he gets no extra money for doing so, he replied "because people like you come to see me and come to see my school and because it is not only the children who are learning through this programme". However, in the end, the pressures were too great for the health coordinator and he left the school in 2001. (Reflection by Tashmin Khamis)

- The single greatest constraint to the development of HAS has been staff turnover in schools. Between 1998 and February 2002, 146 teachers from the five HAS schools were trained. Only 78 teachers (53.4.%) remain in those schools. In two schools, SMS Boys and Metroville, only 16% of teachers have been retained since the start of the project. This is a common factor in most school systems in Pakistan and represents a major challenge for sustainability and maintenance of quality standards. It is difficult for the initiative to build a 'critical mass' amongst school staff, with such high turnover.

- Of the five schools, only one has kept the same headteacher since the beginning of the project. This again presents a major challenge to maintaining levels of commitment in the school management.

Table to show HAS staff turnover since the start of the Programme (1998-2002)

School	Retention Rate of Teachers	Number of Head	Number of Health Co-ordinators (HC)
Atiya Bai Govt. Girls School	67% (2/3)	2	2
Generations' School	70% (14/20)	1	3
Metroville Community School	16% (4/24)	6	4
Pir Mehfooz Govt. School	33% (2/6)	3	2
SMS Private School	16 % (3/19)	2	5

(Source: HAS Final Report, Jan. 2002)

- HAS remained committed to using only the resources available within the system itself, not providing additional resources which would not be sustainable when the model was taken to scale. Therefore, in terms of improving the health environment of the school, the project faced a major constraint in trying to secure water supply. In one government school, the water was finally connected after four years. In this school, the latrines still remained closed because the waste disposal system required electricity and the school could not afford to get connected.

- Whilst commitment has been generated amongst the teachers and school management, there was, in some cases, not enough support from managers at higher levels in the system, such as from academic managers or at school system board levels, e.g. AKES and Community-based Schools.

- In the better resourced schools, competing educational programmes and too many new initiatives may have diluted the impact of HAS. A lack of synergy between these initiatives at times undermined the HAS intervention. For example, in one school a 'life skills' programme was initiated independently of the HAS activities.

- Since Health is not examined by school systems, it is not represented in textbooks apart from isolated topics in Science and in Social Studies. Health therefore does not have a designated place on the school curriculum and HAS has needed to negotiate for time. This 'low status' is both a constraint and an opportunity, since teachers feel more able to experiment with new methods in a subject which is not examined.

- A further significant constraint, given the original design of the intervention, has been the non-functioning of school health services. Only in SMS Boys' School has there been a consistent presence of a health professional. (Discussed below in Section 4.7.)

- As discussed in Section 6, there is now a significant gap in the HAS team, since the original team members have moved on. There is an urgent need to recruit new staff to complement and strengthen the capacity of the remaining team. In addition to this, HAS needs to be further institutionalised within IED's programmes, so that it is regarded as a mainstream activity and recognised as receiving core funding.

SECTION 4: EVALUATION OF *OUTCOMES* IN HAS SCHOOLS

4.1. Original objectives as stated in HAS project document:

a. To develop prototypes of health promoting schools in Pakistan

Research target: to evaluate the efficacy of a particular methodology. To test the hypothesis that this approach:

- Increases health knowledge and changes health behaviour of children, their families and staff at school
- Increases children's retention in school
- Develops children's ability to participate in learning, to think and to take decisions (i.e. improves life skills and self-esteem)
- Improves methodology of teaching health education through linking learning with action
- Shows positive educational results with reference to the well-being of the school and the performance and attitudes of the teachers and children.

b. To share lessons learnt with other systems

c. To introduce school health education into IED's programmes

d. Advocacy at policy level to influence systems:

To encourage policy makers to give serious consideration to recommendations resulting from the project. How can content and approaches of HAS be incorporated without involving any major changes in policy or major increase in existing workload of teachers?

4.2. Categories for analysis

Findings from analysis of outcomes drawn from existing HAS documentation, as well as new research data, have been grouped into the following categories:

- **Direct benefits for children**

  Health knowledge
  Self-esteem
  Health communication
  Health behaviours
  Social well-being: relationships between children and teachers
  relationships between children themselves
  Participation in learning
  Inclusive education, including gender
  Early childhood care and development
  Conclusions: Quality of HAS learning experience

- **Direct benefits for teachers**

  Professional development
  Self-esteem, motivation and fulfilment in role

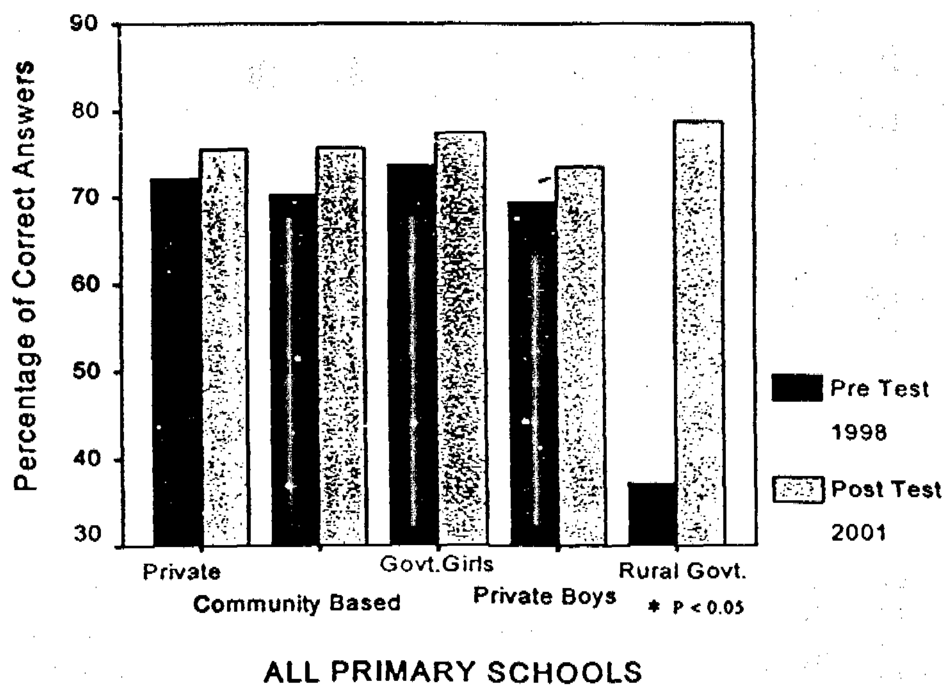
- **Benefits to school and community**
  Relationship between parents, children, and teachers
- Impact on school environment
- Linkages with health services
- Characteristics of health promoting school – a commentary

4.3. Direct Benefits for Children

4.3.1. Children's Health Knowledge

- The HAS intervention has given a focus to health education in schools and improved the way in which it is taught. Pre and post test results show an increase in levels of children's health knowledge. The most significant increase is demonstrated in the poor rural government school, Pir Mahfooz.

Graph 1: Comparison of Health Knowledge



- As graph 1 shows, the most significant ($p < 0.05$) impact in terms of benefit to children's health knowledge (pre vs. post test) is seen in the poorest government school in the rural area, where schools are smaller and may be multigrade.

- Focus group discussions and interviews with children revealed that when children's interest in a topic is engaged and they are actively involved in relating this health information to their own lives, they are more likely to remember it.

"I like my class (health) teacher because she is very kind and she gets angry rarely, only when we make noise. The most important thing I like about her is that she involves us in discussion during the lesson, while the other teachers usually just teach us the lesson. When our teacher teaches us a health topic she asks us to gather information and we make graphs.... I really liked some of the health topics because the teacher used pictures. For example, she drew a picture of a dining table with different foods on it. It was very good and I remember it." (Class IV student, SMS Boys School)

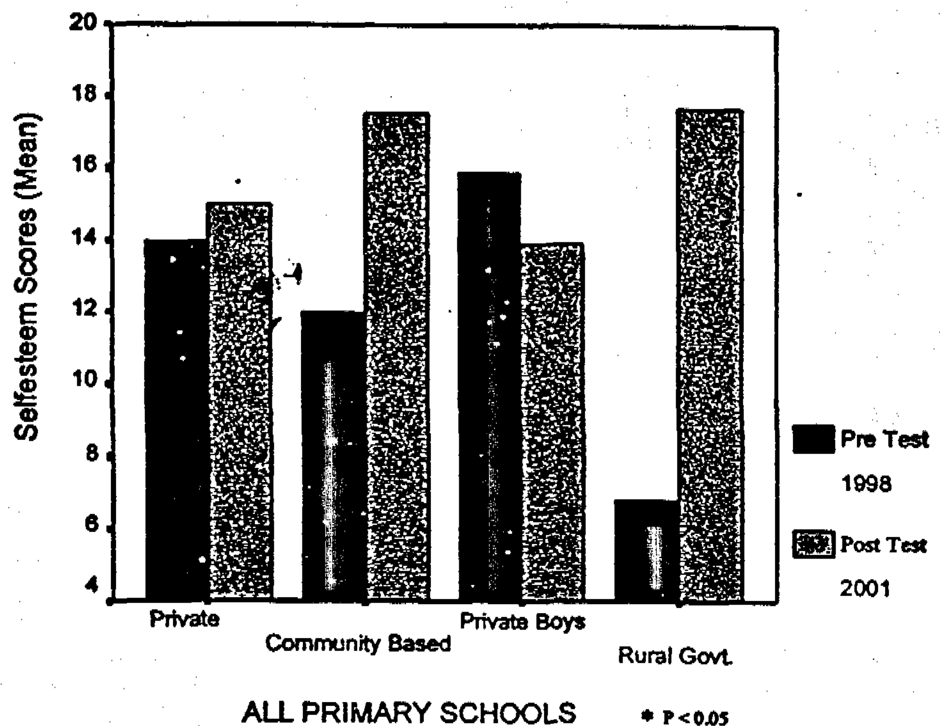
4.3.2. Children's Self-Esteem

- The HAS baseline study included a modified version of the Lawseq questionnaire to measure children's self-esteem. In all except one case there is an increase, again most significantly ($P<0.05$) in the low-income rural government school.

- According to HAS' final report of January 2002, despite major problems with teacher turnover and internal staff tensions, we see a significant improvement in health knowledge and self esteem of children in the Government rural school. Two main factors have been identified which might explain why such gains are noted in the poorer schools – one government and the other community based:

  - The use of mother tongue: When mother tongue is used as opposed to the language of instruction (English or Urdu medium) children understand the health messages better and participate more in their learning.
  - The involvement of the whole school: In other schools only particular target classes received health education. However, when the whole school participated in health education and the health action programme, better gains are noted in terms of increased health knowledge and children's self esteem.

- The scores of the two private schools support these conclusions. In Generation, the gains are marginal, while in SMS self-esteem levels appear to have dropped. SMS Boys and Generations are both well-resourced schools and HAS represents only one of a number of special on-going programmes, unlike in the government schools, where HAS brings a unique stimulus and innovative educational experience. In the private schools the impact of HAS is therefore diluted. Moreover, both schools insist on English as the language of instruction, which may affect children's understanding of and identification with the subject matter.



Graph 2: Comparison of Self-Esteem scores - pre and post intervention

(Source: HAS Project Final Report, Jan. 2002)

*Note: there were statistically insufficient children at the girls' government school, Atiya Bai, to conduct this study with the same group pre and post intervention.

- This change in children's confidence and self-esteem is also evidenced in the qualitative data pre and post intervention. Such confidence and motivation is also central to children developing positive attitudes to learning - believing that they have the ability to learn and develop and take action on their own, including communicating their ideas and concerns to others.

4.3.3. Children's Health Communication

- One of the child-centred participatory research tools used with children during the evaluation was *communication mapping*. In this, children draw and write in response to the open questions: *"Whom do you talk to? What do you talk about?"* This provides insights into the patterns of communication between children, their families and friends. The tables below analyse their responses in relation to different family members and provide insights into the range of topics children involved in the HAS

project discuss with their families and friends. (See Appendices for examples of this tool).

- It is evident from the communication mapping exercise that children talk about health issues at home. Some spontaneously highlighted health as one of their main topics of communication - with their mothers (8%), with their sisters (7%) and with their brothers (6%)., although these figures could not be triangulated with parents' responses. However, it was noted from the individual interviews and focus group discussions that children did not hold a strongly defined image or identity for themselves as 'health communicators'. The data shows that children do discuss health issues spontaneously at home, but they do not appear to characterise their role distinctively and overtly.

- As is clear from the findings on children's health knowledge and self-esteem, children in the HAS schools are now well positioned to become more proactive in communicating on health issues with family and friends. As discussed above, the HAS project can in future give greater emphasis to strengthening this dimension of children's participation, linking children's learning with action, both in passing on health messages and in taking practical action. It should be noted that such communication is 'two-way'. When children gaining positive feedback from the interaction which in turn serves to strengthen their sense of competency.

- Children will require support to enable them to communicate effectively on health issues. Communication skills are central to life skills development. Whether children are conducting a survey or trying to communicate a health message, they need skills in determining how to communicate appropriately and effectively. Children can perform role plays to strengthen their identification with the role of 'health communicator' and to practise their communication skills. They can also role play to evaluate what actually happened when they talked to others about health and to work out how they can communicate better.

TABLE 3a : Children's communication with their mothers

Topic of communication	Percentage of child responses
Asking for food (21%)	
About school (10%)	
Helping me with my homework (8%)	
About health topics (8%)	
About money (7%)	
Sharing problems (7%)	
Helping with housework (7%)	
Buying school items (5%)	
Complaining about beating (2%)	
Getting hair cut (2%)	
Going out to play with friends (2%)	
About secrets, wishes & dreams (1%)	

Source: Children's communication mapping: "Whom do you talk with? What do you talk about?" (103 respondents)

TABLE 3b : Children's communication with their fathers

Topic of communication	Percentage of child responses
Asking for money (24%)	
About school (14%)	
Buying school items (8%)	
Sharing problems (3%)	
Help with marketing (2%)	
Requesting prayers for exams (2%)	
Listening to stories (1%)	
Asking to go to school (1%)	
About health topics (1%)	
About computer (1%)	

TABLE 3c : Children's communication with their sisters

Topic of communication	Percentage of child responses
Mutual help in studies (30%)	
About play (12%)	
About health topics (7%)	
Helping in housework (6%)	
Sharing ideas (4%)	
Lending books & pencils (4%)	
Helping with shopping (3%)	
Love and friendship (2%)	
Helping to go to school (2%)	
Resolving conflicts (2%)	
Asking for money (1%)	

TABLE 3d : Children's communication with their brothers

Topic of communication	Percentage of child responses
Mutual help in studies (14%)	
About play (11%)	
About health topics (6%)	
Love and friendship (5%)	
Asking for money (5%)	
Lending books & pencils (5%)	
Helping with housework (3%)	
Buying items for brother (1%)	
Sharing ideas (1%)	
Telling stories (1%)	

Source: Children's communication mapping: "Whom do you talk with? What do you talk about?" (103 respondents)

Additional data on children's communication
Out of 103 respondents, fewer children mentioned other family members and friends.

- 8 children mentioned talking with their *grandparents*. Topics included: talking about school (5); about grandparents' young life (1); grandmother telling child about oral hygiene (1); reading the Quran to grandmother (1).

- 4 children mentioned talking to their *uncles and aunts*. Topics included: requests for money (2); about school (1); request for water (1).

- 5 children mentioned talking to their *teachers*. Topics included: requests not to beat or be angry (2); about health (2); requesting help (1).

- 16 children mentioned talking with their *friends*. Topics included: sharing problems and talking (8); playing together (4); helping in studies (2); sharing pencils (1); advising not to lie (1)

- 2 children mentioned talking with their *cousins*. Advising not to tell lies (1); not to walk alone (1).

Source: Children's communication mapping: "Whom do you talk with? What do you talk about?" (103 respondents)

4.3.4. Children's Health Behaviours

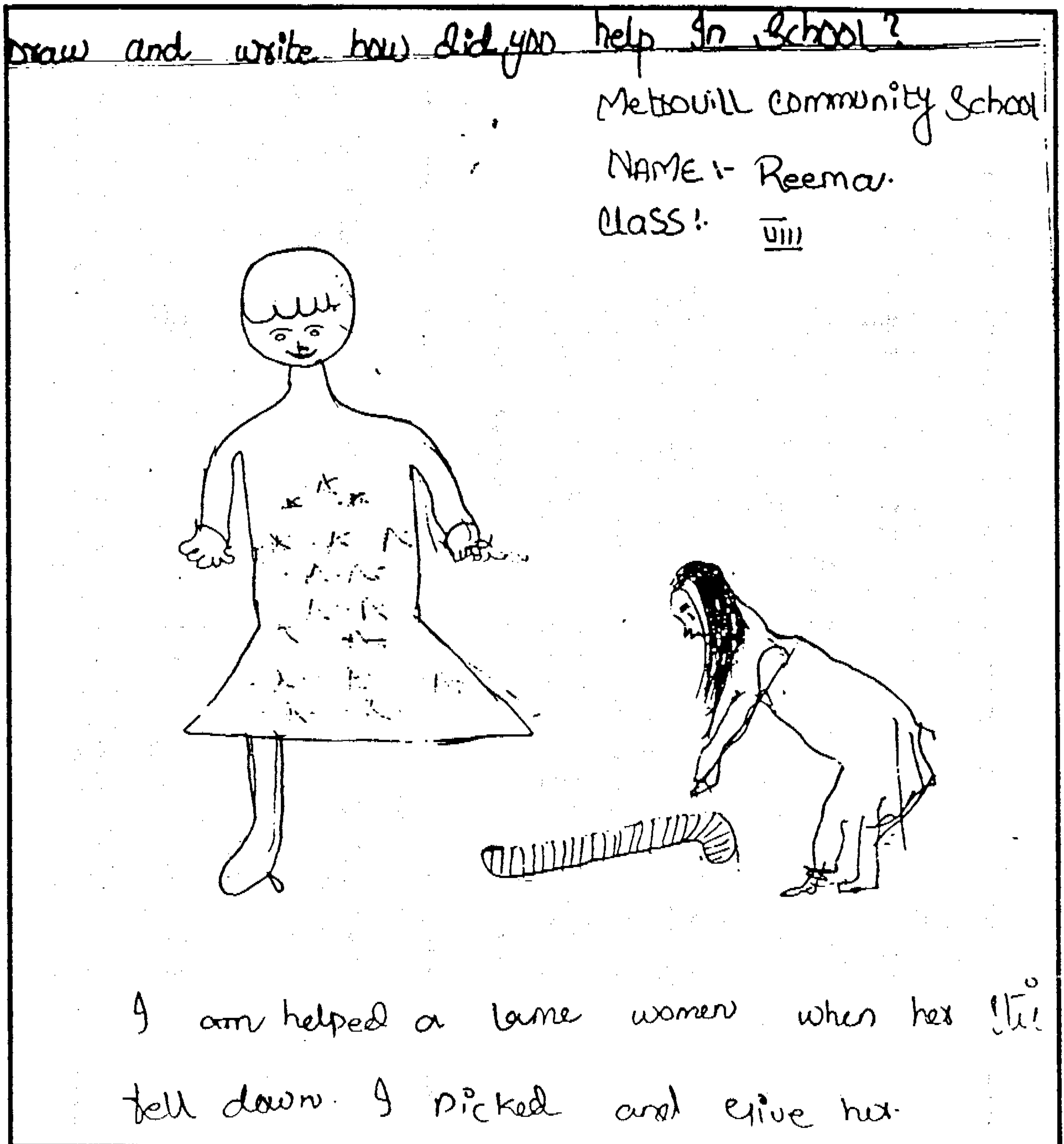
- The impact of HAS on children's health behaviours has not been measured quantitatively pre and post intervention, although qualitative evidence in project documentation and reports from teachers and children in focus groups and individual interviews cite a number of examples of improved health behaviours.

- Existing qualitative evidence of improved health behaviours in children include:

    - Increased numbers of children bringing boiled water to school (all schools)
    - Children bringing 'healthier' food to school in lunch boxes (SMS Boys and Generations) and avoiding junk food and buying food from street vendors
    - Children bringing their parents and younger siblings for immunisation (Atiya Bai)
    - Children taking initiative to maintain a cleaner environment at school (all schools)
    - Increased personal hygiene in relation to hand washing (Atiya Bai, SMS Boys)
    - Effective anti-lice campaigns (Generations)
    - Greater concern for the well-being of other children (reported by SMS teachers and evident in the 'draw and write' tool with children).

- An analysis of the *draw and write* exercise with children also indicates their levels of self-efficacy in promoting health action. Children were asked to draw and label a picture of an action they had taken to help another child to be healthy and happy. Allowances should be made for some of these responses being 'socially desirable',

although efforts were made by the research team to discuss the picture with the child to check that it represented a real event.



An example of the children's 'draw and write' tool: "How did you help another child to be healthy and happy?" This child has written: "I helped a lame woman when her stick fell down, I picked and give her." Many of the HAS schools have done projects on disability and developing positive attitudes.

TABLE 4: Health actions self-reported by children

Children were asked to make a spontaneous drawing and write about a real example when they had done something to make another child healthy and happy. Once their drawing was complete, researchers talked with the child to check details and verify that these actions actually took place. However, as discussed earlier, it was not possible to meet parents to triangulate the findings with their responses.

Type of self-reported action to promote health and happiness in another child	Percentage of child responses
Helping in household chores (18%)	
Giving water (usually boiled) to another (10%)	
Lending school items (9%)	
Advising not to eat junk food (7%)*	
Helping/being kind to younger children (6%)*	
Advising about hand washing (5%)*	
Helping friend to pick up dropped bag, etc (5%)	
Advising not to play in dirty sand (5%)*	
Solving quarrels (4%)	
Playing together and sharing friendship (4%)	
Advising adult not to smoke (4%)*	
Sharing packed lunch (3%)	
Helping disabled person (3%)*	
Helping classmates to learn (3%)	
Helping a sick person (2%)*	
Preventing accidents at home (2%)*	
Rubbish disposal (2%)*	
Helping a child who has fallen down (2%)	
Single miscellaneous responses(6%)	

Source: Children's spontaneous drawing and writing: "Whom do you talk with? What do you talk about?" (98 respondents)

- **41% of children reported actions relating to health topics** taught as part of the HAS initiative. (These topics are marked with an asterix.)

- A number of the other responses indicate **children's caring attitudes to others** and are indicative of the health of the social environment of these schools, including many different examples of empathy and cooperative behaviours.

- However, research on the transfer of health knowledge into health action should form a primary focus in the next stage of HAS implementation. Improved health knowledge and increased self-esteem are certainly two important determinants of healthy behaviour, but they are not all. This area requires more emphasis in future action research. While observation in schools and interviews with children and teachers suggest that some health knowledge is transferring into healthy behaviours, this cannot be assumed and needs to be monitored closely and be further emphasised in training support to schools.

- HAS has rightly given emphasis to the *quality* of the teaching-learning process as the foundation for health promotion in schools, marking its impact on health knowledge and self-esteem. However, as a health *action* intervention, it will need to monitor more systematically the follow-through to children's actual health behaviours. Ideally, this would be monitored in relation to each health behaviour, topic by topic. Where there were factors preventing the implementation of such behaviours, these need to be recognised and addressed. Children themselves can be involved in monitoring health behaviours.

- A good example of involving children in monitoring has been reported in the work HAS helped to develop with the Water and Sanitation Extension Programme (WASEP) in northern Pakistan. In this project, children monitored each others' hand-washing behaviour.(Alibhai and Ahmad 2001). However, it may be argued that WASEP has a more explicit emphasis on changing health behaviours, rather than on the quality of teaching and learning. Its Child-to-Child activities are facilitated by health promoters, not by teachers. (See Section 5 on HAS Expansion and Outreach.)

- It is important to note that HAS never intended to measure changes in health *status* (incidence of disease, nutritional status, etc.) as it was not thought feasible in the 3 year time limit. It is also difficult to measure the impact on health status as a result of Child-to-Child activities in isolation from other interventions.

- The health environment is clearly linked to children's ability to practise health behaviours. One lesson, observed by the evaluation team, about intestinal worms was conducted in a HAS school with non-functioning latrines strewn with faeces. In this case, the waste disposal system in the school latrines requires electrical pumping and the school is not connected to an electricity supply. Against great constraints, this school has, however, managed to secure a water supply. Meanwhile, in other HAS schools, great progress has been made in maintaining sanitary latrines and a water supply for hand washing. This is clearly evidenced by the observations in the baseline study and during the evaluation visit.

- It is also vital that health information given to children is checked against the latest research and is also linked to the context of the local community. Incorrect information well taught could have serious implications. (An example of this was noted in the field trip to rural Sindh. It was found that the message on making ORS has not been checked for local interpretation. Locally used spoons are large and so there is concern that too much salt is put into the ORS. As discussed in Section 5 on Outreach, HAS will have a key role in monitoring accuracy and consistency of health content in educational materials produced by implementing partners.

- More intensive research and follow-up at community level, particularly with children's families, would indicate how health behaviours are determined or influenced by a range of factors, including *information*, *motivation*, *the ability to act (life skills)* and an *enabling environment*. An analysis of these factors in relation to the usage of oral rehydration therapy illustrates the multiple issues which need to be considered in developing healthy behaviours. It is not easy to develop or change health behaviours, but if a school intervention is committed to health promotion, teachers (and to some extent children) need to be involved in analysing factors which determine whether a health behaviour can be implemented, and in planning activities accordingly.

Table 5: A 'Planning and Measurement Framework' for Health Behaviours

This shows the causal pathway between activities and health goals. This example relates to Child-to-Child action on reduction of child deaths from dehydration. The table is read from left to right, demonstrating how specific interventions impact on factors which determine whether a child can or cannot take action, which ultimately impacts on the health goal.

Interventions →	Determinants of behaviour →	Child's behaviour →	Health goal
Teachers pass on correct information using HAS materials	Child has *correct information* about ORT	School child convinces parents to administer ORT to sibling with diarrhoea	Reduce number of child (under 5) deaths from dehydration
Children practice passing on message through songs, posters, etc. Practice mixing ORS in class. Discuss and role play how to coax a young sick child to drink	Child feels *confident* to pass on message about ORT and make and administer drink		
Children do survey to find out whether/how parents take action to prevent dehydration	Child feels *motivated* to take action		
Children motivate each other through discussion sharing experiences			
Children practice convincing sceptical parents through role play	Child has *communication skills* to pass on message to adults		
Parents are consulted before starting CTC intervention and agree with health priorities.	*Parents have positive attitude* to children's role as health promoters		
Teachers work with local health workers / NGO workers to ensure messages on this difficult concept are synchronised in school and community.	Child and parents *understand health concept* that ORT treats dehydration not diarrhoea (otherwise may reject message when diarrhoea is seen to increase)		
Children conduct survey to find out whether ORS packets available, or what home-based fluid available.	Low-cost or no-cost ORS packets *available locally*, or local home-based fluids promoted in message.		

(Source: Framework developed in Measurement Project of the Adolescent Health and Development Programme, WHO, Geneva)

4.3.5. Children's social well-being: relationships between children and teachers

"A school is a social unit: whether children have a good experience or a negative one depends, to a large extent, on the quality of relationships."
(Ogadhoh and Molteno, 1998, p. 36)

- In focus groups and individual interviews, children regularly commented on how HAS had changed teachers' attitudes to them and the way they were treated. In Pir Mahfooz, in particular, a dramatic change has been noted in the way teachers and children relate to each other. Corporal punishment has clearly reduced considerably (although it is not possible to say whether it has been banished entirely).

Pir Mehfooz Government School
Reflections on school before and after HAS

Was this really the same school I had walked into 6 years ago? I remember 2 classes. One with a teacher trying his best, but having difficulty coping with four classes in one room, unable to manage tasks and frustrated that he had to teach another teacher's class because the teacher was always absent. The other class had one 'teacher' (in fact the school peon) holding a stick with the little ones (Kindergarden and class 1), banging it on the floor as he taught the alphabet, demanding that the children chant loudly. The girls sat in the back virtually ignored and never asked questions. The children were too shy even to go and write their name on the board when I asked them to.

Was this really the same school I saw yesterday, with children shaking my hand confidently as I walked in? With 4 teachers on site...not quite on time but at least there and teaching? With girls sitting beside the boys slowly raising their hands and being allowed to answer questions...even to ASK questions? With no sticks in sight –and whilst it wasn't the best teaching I have ever seen, the teacher used pictures in his discussions and invited suggestions from the children for the survey? What struck me the most was the relationship between the teachers and the children –it was totally different. There was a two-way communication and children were willingly approaching the teacher, discussing and enquiring of the teacher, that was so different to the fear of the teacher that was visible in the eyes of these same children some years ago.
(Tashmin Khamis, 2002)

- **This transformation in the social environment of the school, and in particular in the small government schools, is one of the more remarkable achievements of HAS.** This can, in large part, be attributed to the modelling of new kinds of relationships offered by the HAS team in their dealings with the teachers and children. Their attitudes presented an alternative to traditional hierarchical roles in schools between teachers themselves, and in how adults relate to children. (See quotation below.) Special attention needs to be given to maintaining the quality of this relationship between the HAS team and school teachers.

"Particular HAS team members (Sadia) are role models, an ideal, for me. I remember how she taught and spoke to the children and I want to be like that. I like to learn the new methods, I see the children enjoy them, they ask for the lessons and ask when the HAS team are coming or when they might go to IED."
(Teacher at Pir Mehfooz school. He has taught for 18 years but become involved in HAS only one year ago.)

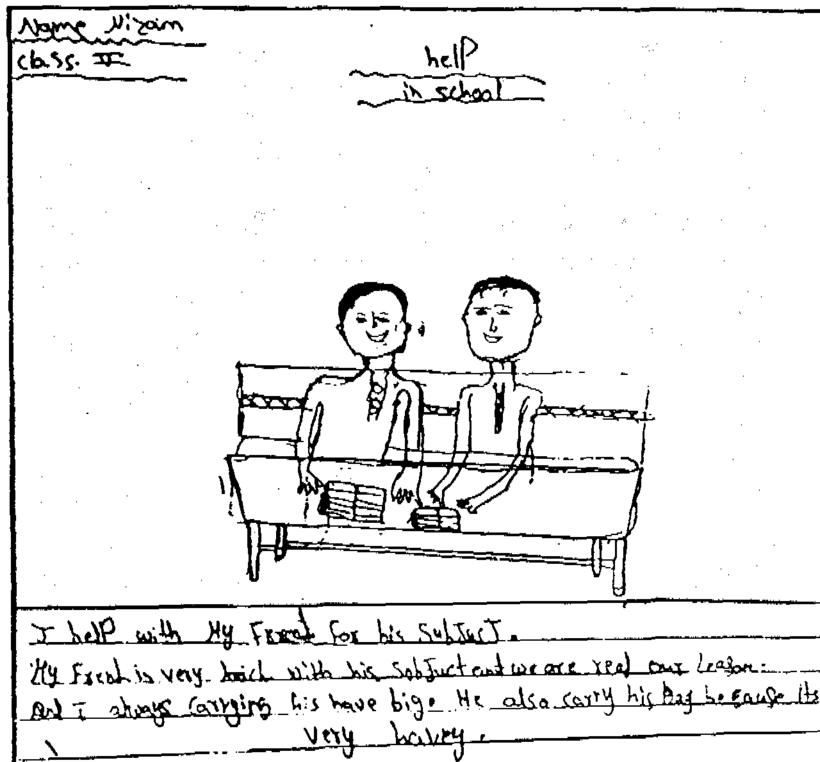
"I love this school because our teachers are very good and they discuss that we are their friend. Our (health) teacher told us how to talk with young children and how to understand their feelings."
(Class 5 student at SMS Boys' school.)

Even the school peon/caretaker at Pir Mahfooz, who was first encountered in 1997 regimenting children with a stick, now clearly articulated his views on the importance of a good environment for children. He insisted on joining the children in the exercise on "What have you done to help a child be healthy and happy", drawing a picture of the flowers he was actually growing around the school compound.

The school caretaker wanted to participate in the children's 'draw and write' exercise: "What have I done to make a child healthy and happy?" He drew the flowers he has planted around the school compound.

4.3.6. Children's social well-being: relationships between children

- Observation of the children in class and at play and the examples of health actions given in their drawings showed a greater awareness of each others' needs. As the Mid-Term Review indicated, children were being encouraged to practice cooperative forms of learning. During the evaluation, it was also noted that teachers actively encouraged children to relate to each other in class. In one lesson observed at Pir Mehfooz, the headteacher requested the children to respond to questions turning to each other, not focusing on him. (See Photo Report on page 11.)



An example of the children's 'draw and write' tool: "How did you help another child to be healthy and happy?" The boy has written: "I help my friend for his subject. My friend is very ... with his subject and we read our lesson. I am always carrying his heavy bag. He also carry his bag because it's very heavy." This illustrates how cooperative learning has been encouraged through HAS.

- Children's drawings also indicated their feelings of competence and responsibility to try to resolve conflict amongst themselves, and demonstrated empathy for younger children.

4.3.7. Children's participation in learning

"Children who have a school experience where active learning methods are used have the chance to gradually build up confidence in the kind of skills that would be needed for genuine participation." (Ogadhoh and Molteno, 1998, p. 28)

- The HAS intervention's primary focus has been on developing active learning processes in the classroom. If children are rendered passive in the classroom, then their potential to learn, and to act upon their learning, is compromised severely. Without their participation, there is little real learning actually taking place.

- Active learning develops life skills, such as the ability to think critically and creatively, to communicate, and to solve problems and take decisions. It has been argued in Child-to-Child Trust publications that participation in the active learning process of Child-to-Child strengthens children's life skills. *(Child-to-Child Trust Newsletter, 2000.)*

- To maximise on children's participation in the learning process and on the potential to develop life skills, it is necessary that HAS emphasises the **importance of working through all four steps.** As discussed in Section 3, it was noted that more emphasis was currently being given by teachers to Step 1 and 2.

Table 6 : Illustrating how HAS' Four Step Approach can develop Life Skills

A PROJECT ON ROAD SAFETY - 6 STEPS	LIFE SKILLS
STEP 1: Understanding the problem: A few children have been involved in road accidents. The school makes a School Health Action Plan, deciding to do a road safety campaign. The children listen to stories, perform role plays and discuss a list of road safety rules.	Empathy Critical thinking Decision making Communication Problem solving
STEP 2: Finding out more: In pairs children interview local taxi drivers and bus drivers. They do a survey and collect information from children involved in road accidents. They also speak to their families and community members. The children record this information in graphs and charts.	Communication Critical thinking Empathy
STEP 3: Taking action: The children report their findings and plan action. The children hold a Road Safety Day, with different activities in the school and community, such as plays, songs, poems, road safety games. They set up a system of road safety monitors, to help younger children cross the road by the school. They display posters and teach about the Road Safety Code. In the local context they teach about 'safety in numbers' crossing the road, rather than using disregarded pedestrian crossings.	Communication Problem solving Critical thinking Creative thinking Decision making
STEP 4: Evaluating: After Road Safety Day, the children talk about what went well, what could be improved and find out whether they had made any difference, ie. whether school children are now practising road safety.	Critical thinking Problem solving

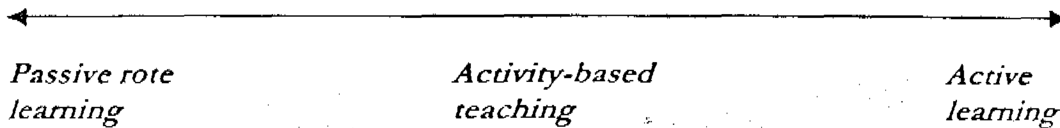
- The concept of active learning is pivotal to the discussion on quality in health education in schools. By participating in the full cycle of the Child-to-Child approach - from understanding, relating to their own lives, planning and taking action and evaluating - children will become engaged in a cycle of critical thinking, action and reflection.

  "The central, and indispensable, component of active learning is the 'inner' activity in which the learner constructs and reconstructs his/her system of knowledge, skills and values... It is this structure which enables (the child) to order new experiences, and thus to attach meaning both to the outside world and to his/her role in it." (ref. Somerset. Child-to-Child Evaluation of worldwide activities, 1988)

- A distinction needs to be drawn between **active learning** and **activity-based teaching.** Activity-based teaching involves the children in being physically 'active',

but not engaged on a 'process of enquiry', as Freire describes it. Methods such as role play, songs, games, etc, can be used simply to keep children active, or they can be used to engage children in active learning.

- In terms of transforming quality in the primary classroom, it is possible to see schools moving along a continuum from didactic rote teaching, with children passive, to dynamic, active learning. The issue is both to plot where individual teachers/classes are positioned on the continuum, but also to analyse the degree to which they have shifted. This continuum is illustrated in summary terms below:

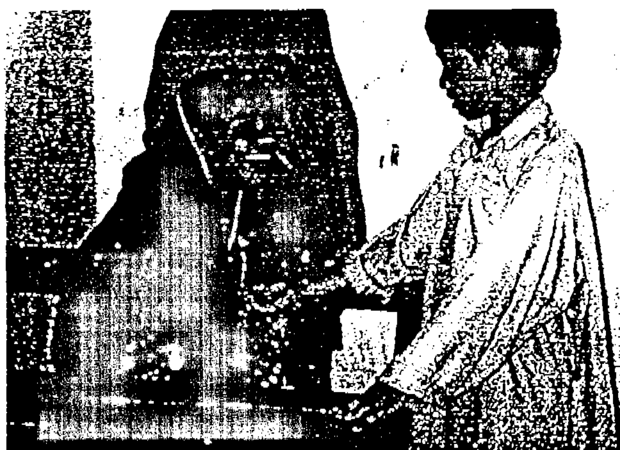


- In HAS schools, once again, it is evident that the greatest transformation in teaching/learning approaches, and the most significant movement along this continuum, has been achieved in the government schools.

4.3.7. Inclusive education

- Observation of classroom practice and comparison with the baseline data indicate that in the mixed-sex government school impressive steps have been made to become more inclusive of girls. Before the HAS intervention, girls at Pir Mehfooz were isolated and left largely ignored at the back of the class. Now, overt efforts to include them in class discussion and activity are paying off in terms of girls' growing confidence to participate.

"I have visited many co-educational schools in Pakistan where the girls are virtually invisible, huddled at the back of the class. It was therefore a joy to see the head teacher, who initially appeared very conservative, direct about 70% of his lesson to the girls. When he asked a question, boys would fling up their arms, while the girls raised a discreet finger. Yet he noticed these hesitant fingers and coaxed the girls to respond to the class. These are the small, but highly significant beginnings of helping girls to become active participants in classroom learning, not just statistics for the register. Later, in a role play, a girl took a key role as the doctor, the figure of authority. The photo below indicates how confident and happy she felt in this role." (R.Carnegie on visit to Pir Mahfooz school)



- A number of the schools have done topics on understanding and attitudes to disability. Examples of awareness and empathy for children and adults with disabilities is evident in some of the children's 'draw and write' responses.

4.3.8. Early childhood care and development

- Although HAS' original focus was on the primary school-aged child, in two schools their activities have also included pre-school children. Practical activities, such as toymaking, have been conducted in all the pilot schools. The evaluation with children revealed their engagement with some aspects of early childhood care and development. **In Generations and Metroville teachers have used the CtC steps with the pre-schoolers to work on issues such as lice and ORS.** Generations pre-school teachers attribute success in combating lice in their classrooms from the step approach of Child -to-Child "where children understood the message and found out more in order to plan and take their action".

- Lessons both for the Child-to-Child Trust as well as AKU-IED may be learnt from the HAS experience of working with this younger age group on health issues. HAS may also contribute to the new Institute for Human Development, as it did so on their task force in the past, that is being planned at AKU.

4.3.9. Conclusions: Quality of HAS learning experience for children

- In considering issues of quality in the principles and practice of basic primary education for children, Ogadhoh and Molteno identify five main directions to work towards, promoting education systems that are:

  - Inclusive
  - Relevant to children's life challenges
  - Developmental, based on an understanding of how children learn and develop
  - Cognisant of the vital role of positive adult-child relationships
  - Able to create strong links between what children experience in and out of school. [3]

- In conclusion, the HAS intervention represents an inspiring model, providing practical pathways for the first four directions. Its challenge now is to strengthen further the linkages between children's school and home experience, by emphasising more explicitly the connection between children's learning in school and action at home, and by seeking new strategies to enable parents to participate more actively in the planning, action and monitoring of health promotion activities.

'To fulfil their function in complex societies, school systems need to be much more responsive – to local realities, to changing times and, above all, to what children are experiencing.' (Ogadhoh and Molteno, 1998)

[3] *Ogadhoh, K. and Molteno, M. (1998) 'A Chance in Life'* Save the Children UK, London. p. 56

4.4. Direct Benefits for Teachers

4.4.1 Professional development

- A Save the Children report in Pakistan examined *"What makes a good teacher?"* by asking all stakeholders in primary schooling to describe their 'ideal teacher'. This provides some contextually relevant concepts for analysing the skills and attitudes of teachers in the HAS initiative.

> *"The ideal teacher is seen by almost all stakeholders as a soft, loving and courteous person who is neat, clean and well-dressed, regular and punctual and upholds high ethical values. The ideal teacher teaches well. S/he establishes a good rapport with children, plans her lesson, explains well, uses AV aids and activities to teach, gives and checks home work, and avoids punishing children to a large extent."* (*"What makes a good teacher?"* SC-UK Pakistan publication, 2002)

- In focus group discussions and individual in-depth interviews, teachers displayed confidence and a sense of achievement in their professional development as teachers. This is evident in the extracts from interviews below and from the analysis of quality teaching discussed in the previous section.

- In the 'before and after HAS' analysis that each group of teachers undertook, they pointed out that previously "teachers had needed instructions and did not initiate work themselves. Now there are opportunities for staff members to lead initiatives and take leadership roles." *(Teachers' focus group on "Our school before and after HAS".)*

- There is a need for this process of teacher development to receive some external accreditation and certification. This is discussed in the next section in relation to IED's role with HAS.

A HAS Health Coordinator's Story

"I love teaching health because I feel it is new, different. I learn information, not only content but I also learn about the children, about their homes and families and how they feel. The Four Steps I follow carefully because I feel it helps the children in the learning process e.g. if I teach a topic without finding out more then we stop at knowledge and we do not have a MOST DESIRABLE level of children's involvement. I find the KNOW, DO, FEEL objectives useful to go beyond knowledge and get to children's feelings. I feel it helps us not only teach correct messages but that we, with the children, have the responsibility to promote health to others.

I feel the FAME sessions really made me use and generate new methods in my teaching. I had heard of and learnt about these methods before - stories, puppets, pictures, SMART objectives - but FAME made me practice them, how to do them and I did them in health and then automatically I started to use these methods in other subjects. For example, I started using stories in teaching farming in social studies because I noticed children listened more, were more involved and attentive and participated more.

I have been inspired to be meeting a need of children. That's why I teach health —to create an awareness in children on how to care. I have also learnt more about health which benefits my own children and

family and neighbourhoods this also motivates me. For example, I can now give First Aid to my own children or to others in the school, even if the nurse is not around.

I had never imagined children can do so much, making toys for younger children. I was surprised by how children were able to make 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 but the children received a positive feedback from the community. The response has been positive from everyone so the process survives." (former HAS Health Coordinator, now Deputy Head, SMS Boys' School.)

4.4.2. Self-esteem, motivation and fulfilment in role

- Action research documentation has indicated that during the years of HAS implementation teachers became increasingly motivated, demonstrated by their growing willingness to participate in training sessions and by less absenteeism. As teachers' skills have developed, so their self-esteem has grown. They have also gained a greater sense of fulfilment in their role when they start to experience children's positive responsiveness to their new methods of teaching.

A New HAS Teacher

"Being involved with HAS is a new experience for me. We teach health differently than how I am used to teaching other subjects. We build on children's experiences,, we promote understanding by asking questions. In other subjects children just copy. But slowly I am trying to use some methods in other subjects also, like using posters in Science when teaching about the Animal Kingdom. Through HAS I have learnt how to know children and how to involve them in their learning.

I think we learn much more from trainings and support that happen in our school. It is practical and contextual and we learn that promoting health is possible in our own resources. When trainings happen in IED we come, we note but we don't do.

I teach health because I see a need for it. I see how our children suffer because of unhealthy behaviours such as not wearing slippers. 75% of diseases can be prevented if children know how. This motivates me to teach." (Government school teacher.)

- Teachers also perceive the direct benefits of health education to themselves and their families. They too have gained important health knowledge and challenged incorrect beliefs through exposure to HAS materials.

"I have a girl of 7 years. She developed the habit of nail biting and her nails remained dirty. Then she got intestinal worms. She became weaker and was refusing to go to school. At night she started rubbing (itching). Her mother told me that she had seen worms present in her excreta. I helped my daughter to get rid of this habit. I took her to the doctor and he gave her medicine. Now she is okay and happy.

I came to know about worms while teaching health in my class. Before HAS (Sehat hi Batein) I did not know how these worms are spread. I knew from my parents that too much sugar can cause worms." (Government school teacher)

4.5. Benefits for Schools and Communities

4.5.1. School and community: Relationship between parents, children and teachers

- Due to the political situation in Karachi at the time of the evaluation mission, it was not possible to conduct research in the communities. A few parents were interviewed when they came to the Health Mela (fair) organised at the Child-to-Child Resource Centre at IED. However, a comparison of the baseline data and the findings from the final evaluation research with teachers shows that there has been some shift in the relationship between teachers and parents, at least in the attitudes of teachers to parents.

- For example, the HAS Baseline Study, conducted in 1998, describes teachers' attitudes in one school, Atiya Bai: "Generally, the teachers had a very low opinion of parents, suggesting that they do not really care (though the literate ones were thought to pay more attention to their children) and they do not teach their children about health. Teachers are quoted as saying: '*We don't know if the parents take any care over health... Parents send their children here so that they don't bother them at home... Parents come home from work and they are very tired, so they don't feel responsible for their children.*" (p.16) In the focus group discussion with the same teachers from this school, the head indicated how attitudes have started to change.

"This school has initiated parents' meetings. No teachers come from this community. In the past we used to put down parents. Now I can see a shift in attitude."
(Government school head teacher)

- As discussed earlier, parents have a critical role to play in supporting and enabling children's health action. A strong relationship and clear communication between teachers and parents is vital. In other HAS schools it has proved more difficult to initiate or sustain parent-teacher meetings and parental involvement in school health promotion activities. The new Child-to-Child Resource Centre is trying to facilitate the building of this relationship. Parents are invited to the activities at the centre. Recently, a day was also organised for the grandparents of children in HAS schools.

- The involvement of parents in health promotion provides a practical entry point for creating a more constructive school-community link. It can also influence how communities view the value and relevance of schools.

- Establishing and maintaining connections between school and community has clearly proved to be one of the most challenging aspects of HAS' work. The original model envisaged a central role for parents to participate in identifying and agreeing on health priorities for the school's health action plan and in monitoring HAS activities in school and home. Whilst recognising the constraints, the next phase in HAS work should seek to identify ways to enable parents to become more aware of and engaged in their children's health promotion work. This will help to bring about the crucial attitudinal shift in parents themselves to recognise their children's growing competence and to accept their role as active health promoters.

A Mother's Perspective

My son talks about food hygiene and balance diet. I always make lunch at home for my children to take with them to their school. Teachers also ask them for home made lunch. I always take care of my children's health and I give them boiled water. One day my son told me that he had finished water before lunch break and it bothered him, as he was thirsty. I asked him that why he didn't take water from school? He replied, the water at school is not clean and you (mom) always say that we should always drink boiled water. That's why I didn't take water from school tap.

My husband smokes. We (I and by kids) always try to convince him to quit smoking. One day we made a plan. My son went to his bed before his father and took cigarette with him and acted as he is smoking. As part of our plan I took my husband to my son's room and showed him that our child has been influenced by smoking and see he is trying to smoke. My husband told him not to do that but he didn't quit smoking.

My child always says that his teacher praised me for my work. And I never miss monthly teacher-parents meetings, as I want to know whether my child is telling me the truth about his performance as well as other issues. So I think parents and teachers should be in contact. I always help my children to do their homework and I never prefer tuitions as many of the parents send their children to tuition centres after their school. (Parent of Class V student, SMS Boys School)

4.6. Impact on school environment

- HAS' detailed data provides conclusive evidence of the impact of the project on the school environment. The baseline data paints a vivid picture of the degraded and unsanitary conditions in the schools, which contrasts strongly with the attention to environmental hygiene now obvious.

Before and after HAS at Atiya Bai School

The school surroundings were described in the 1998 Baseline Study: *"The terrible state of latrines behind the school means that flies breed and there is a bad stench. There are some hazards such as wires and steel rods around.... The latrines have faeces and flies and no sink, water or soap to wash hands. A tank of water is present but this is not clean." (p.89)* The annual situation analysis reports and the final evaluation visit found a vast improvement in the quality of the sanitation and water supply at this school. The latrines and surrounding area were cleanly swept. The children also had access to water and soap and were observed washing hands after using the latrine.

- The HAS team has been committed to working in a sustainable way by avoiding bringing in any additional resources for sanitation and water supplies. Schools have clearly made great efforts to achieve better environmental sanitation conditions. In one government school, the management succeeded after three years in getting the school water supply connected. However, the latrines in this school are still in an unfit state, since they appear to require an electrical supply to function and the school has not been re-connected. The history of the HAS team's efforts to resolve this issue is a credit to their perseverance. The team have asked themselves whether a school health programme can operate in an environment without sanitary latrines. In

this particular school the children come from the immediate vicinity and so the problem is not so acute as in situations where the children travel from far afield.

4.7. Linkages with health services

- Apart from activities with the school nurse in one school, it has proved impossible to engage the school health services in collaborative work. However, the project has sought to define this function more broadly, looking at ways in which children and teachers can be involved in health provision within schools, for example, through First Aid and nutrition activities.

- In Attiya Bai, teachers made connections with local health services to develop a joint campaign on immunisation. This offers a positive alternative, since children's health action in the community, and health seeking behaviours in themselves, must be supported by health service providers.

- Teachers have received training in first aid and early detection of health problems such as sight, hearing and oral hygiene. The role of children and teachers as health carers for and from the school needs to be explored in such contexts as Pakistan where school health services are non-existent.

- In SMS Boys' School, where there is a full-time school nurse, the HAS initiative has encouraged her to come out of the 'sick room' and to become more involved in bringing about a healthier classroom through health education.

School Nurse's Experience of HAS

Since the HAS project, I am now more involved with prevention rather than just cure. I am involved with health checks and referrals but also with health promotion. Before HAS I never went to the classroom but now I do. I even take first aid classes. Before I waited for the sick person to come to the sick room. I personally have gained in confidence through attending HAS trainings and through being involved in HAS. If we want more links with health services then we need a more top down approach. (School nurse, SMS Boys' school)

4.8. Characteristics of a health promoting school – a commentary

The original project proposal for HAS identifies seven characteristics of an effective health action or health promoting school, regardless of context. In summary, it is useful to analyse whether the HAS schools have developed these characteristics.

- **Attempts to identify health priorities in relation to general and local needs of children**
  All schools have been involved in developing annual School Health Action Plans which meet local health priorities.

- **All teachers in the school (and where possible parents as well) should know and approve these priorities. Communities should be involved or consulted in their selection.**

Teachers have been involved in identifying these priorities. This has been more effective where HAS has involved the whole school, not just certain classes. It has proved more difficult to involve parents and other community members in this process, in part owing to teachers' resistance and in part to the fragmentation of urban communities. This has proved easier to achieve in rural communities.

- **Teachers should be encouraged to use methods which promote real understanding, help children to think and make decisions about health and link health learning with action.**
  The sequenced learning approach ('Four Steps') and the FAME (Fun Active Methods Enhancement) sessions have enabled teachers to develop their skills in active learning processes. Greater emphasis now needs to be given to ensuring that health learning is translated into health action.

- **Teachers and children promote a school environment which is healthy and a school community which is actively health conscious.**
  This has been achieved in HAS schools, to a large extent, although programmes should not underestimate the constraints in delivering water and sanitation, especially when seeking to achieve this without any financial support.

- **Close linkages established with school health services.**
  It has not proved possible for HAS to connect with or mobilise school health services. HAS has developed alternative models of health provision within schools, building on teachers and children's own capacities. In future, linkages should be strengthened with other health providers in the local community.

- **Community interaction with school and community, particularly through its children, promoting health in the community.**
  It has proved more challenging to establish dynamic interaction between school and community. The HAS team recognise that, as a small action research project, they do not have the capacity to engage in extensive community mobilisation. Where the HAS methodology has been adapted by bigger implementing agencies, such as the Sindh Education Foundation, it has been possible to combine work on quality improvement in schools with community mobilisation and participation.

- **Designing the 'action programme' suited to the individual context of each school, and thus, to some degree, planned, owned and managed by the school and its community.**
  The training and school support model developed by HAS has enabled each school to develop action plans which are fully responsive to their unique context. As discussed above, the challenge remains on how to involve the community in planning and management of these processes.

Overall, the HAS project has made remarkable progress in fulfilling this vision of a Health Action School, whilst its process of action-reflection has pointed up the constraints which real school situations present to interrogate a theoretical ideal.

SECTION 5: EXPANSION AND OUTREACH

5.1. Dissemination Activities

5.1.1. Introduction

- While an assessment of the process and outcomes of HAS' outreach work was not part of this evaluation's scope of work, nevertheless, a reflection on activities to date and the lessons learned from this will be central to refining a future strategic vision for HAS.

- An objective of the project was to share lessons learned as an outcome of the action research with other systems (outreach) and then to expand and replicate the model beyond the pilot phase in what was termed 'self-expansion schools' (expansion). However, due to demand for school health promotion in Pakistan and the dearth of expertise in the area, the HAS team found itself involved in sharing and adapting lessons much sooner than was envisaged. Dissemination has occurred through four main routes:
  1. Publications in local media and journals as well as through Child-to-Child and Save the Children publications.
  2. Sharing of materials locally and regionally such as the Urdu Activity Sheets "Sehat ki batein" and health topic plans.
  3. Meetings and seminars both locally and internationally
  4. Capacity development of other organisations interested to develop school health programmes, through training and materials development.

  Some of the major milestones in adapting HAS' lessons to develop capacity for other school health programmes are described below.

5.1.2. WASEP in Northern Pakistan

- The first major outreach activity for HAS was the establishment of the SHIP programme (School Health Intervention Programme) of WASEP (Water and Sanitation Extension programme) of the Aga Khan Planning and Building Services in the Northern Areas and Chitral. HAS was asked to develop a school health intervention to enable school children in participating villages to promote good hygiene and sanitation practices. Today more than 100 schools in the North (including Government, community based and Private AKES schools) cover 6 health topics from washing hands and food hygiene to intestinal worms and safe disposal of stools. Each topic is taught by health and hygiene promoters (HHPs) and reinforced by teachers using the Child-to-Child (CtC) approach over three lessons: children are introduced to a health and hygiene issue, find out more about it in their communities and take action as a result. A manual (HHP guide) developed by the WASEP team as a part of the HAS training forms the teaching guide for the health workers. More than 1500 school health education sessions have been conducted to date. Impact has been measured (Alibhai and Ahmad 2001) by WASEP indicating that children's health knowledge and practices have been significantly improved. In addition, since the SHIP intervention, latrine use in WASEP partner villages has increased, a fact which has been attributed to efforts undertaken by school children to promote sanitation at the community level. This is believed to have contributed towards a reduction in diarrhoeal incidence in partner communities. The CtC approach is noted to have realised benefits that were not initially planned for. These have

included an increase in children's confidence to express themselves and share their feelings through participating in role plays, drama, songs, developing their skills for data collection and analysis as they take part in surveys. Teachers have also been exposed to new teaching methods. School attendance has also been noted to have increase since SHIP.

5.1.3. PEP-ILE in NWFP

- The PEP-ILE (Primary Education Programme – Improving the Learning Environment) of GTZ working with over 16,000 government schools in the North West Frontier Province, approached HAS to develop health education units for teachers and parents. After an initial needs analysis, material was developed on first aid and basic hygiene as well as toy making by HAS and the PEP-ILE team to enable teachers to involve parents on health issues related to their children. Through their cascade system over 20,000 primary school teachers were exposed to the school health training and it is reported that first aid boxes were made and are being used and maintained in their schools.

5.1.4. Sindh Education Foundation Community Supported Schools

- As a result of the first policy dialogue of AKU-IED on school health promotion, the HAS team were invited by the Provincial Minister for Education in Sindh to help her organisation, the Sindh Education Foundation (SEF), to develop a school health programme for their 100 Community Supported Schools (CSS) in rural Sindh. The objectives of this programme are to work for the betterment of the health environment and health services through health education of SEF target areas. After a needs analysis to identify health priorities, master trainers were exposed to the CtC approach through a one-week training and developed a teaching manual on these topics. This has been translated into Sindhi after obtaining input from teachers themselves on classroom activities. Master trainers trained 100 teachers from the 100 one-teacher schools. Each health topic is taught over four steps, which includes promoting understanding, finding out more, planning action and taking action. Although no systematic assessment has as yet been conducted, the SEF-CSS team report an enthusiasm from the community for the project as has not been seen before and hence the health programme has actually mobilised communities. In addition, teachers are seen for the first time to create poems, stories and songs themselves to teach health topics. A marked improvement in the school physical environment is also recorded. Teachers report that attendance and enrolment has increased in some schools participating in the health programme. They have also calculated that the cost of the health programme for the last year, including the initial training for master trainers at IED and production and printing of the training manual, works out to 47 Rs per child. SEF is hoping the HAS team will be involved in evaluation of the health programme.

Visit to SEF Community-Supported School in Sehwan District

This school provided an excellent example of the adaptation of the HAS model to another environment – a non-formal school system in a rural setting. The community had built the school and were closely involved in its activities, hence the link between school and home was already established for the Child-to-Child activities. The Village Education Committee was very active.

The teacher explained how he used the manual (developed by SEF with HAS facilitation) to work through the different steps for children's learning and action. Children reported how they learnt about different health topics and conducted surveys in their homes to find out how people were affected by these issues. They demonstrated a number of fun activities – songs, drama, poems – with evident enjoyment to show how they learnt about health and passed on the messages to others. Discussions with older girls and mothers at the nearby Women's Literacy Centre confirmed that health learning was indeed passing from school to home and being implemented.

The teacher stated how the training in health education had given him new ideas for teaching and had changed his attitude to children. *"Before training I used rote learning. Now the students also take part in giving ideas and taking action. We use group work and discussion to find out how to help a child who has a problem. For example, if a student is complaining of headache, we discuss to try and sort out the reasons. In the past I would dismiss or silence those children who were sick or complaining. Now I think about the reasons – maybe a lack of water, maybe they are not filtering the water."*

The training has also given this teacher more health knowledge and confidence: *"Before the training I had no idea about health, for example, about ORS. The training has affected my life. Now I have the SEF manual I do not need to go to the hospital every time I am sick. The community comes to me for advice. I also gave up smoking after the training. Now I feel my health has improved."*

(Source: Field trip to Nandhi Therhi SEF Community-Supported School, Sehwan)

Teacher and children at Sindh Education Foundation community-supported school

5.1.5. Afghans in Pakistan and Afghanistan

- **HAS has been involved in training 70 Afghan field workers to use the Child-to-Child** approach in refugee camps, transit centres and home schools in Afghanistan. This has occurred through Save the Children UK's partners, which include Save the Children US and its child focused health education initiative, an NGO organisation ARR (Afghan Relief and Rehabilitation) working in Peshawer, and the AKES supported Afghan community-based and transit centre schools. Based on identified needs, health topic manuals have been developed through the training, such as the "Guide for facilitators on health education for displaced children" (Khamis and Shivji 2001). Health topics are taught over four steps: Understand, Find out more, Take Action and Evaluate. In transit centres it is reported that the physical environment has improved as a result of the health education sessions and basic practices of drinking boiled water are now being observed.

5.1.6. Self Expansion Schools

- About 100 teachers from 20 self-identified expansion schools in and around Karachi have received training from HAS, 7 of these being from the Government sector. Trainings have been designed to develop capacity amongst teachers on how to deliver health education using the CtC approach, how to develop school health action plans and how to monitor their programmes. However, follow up has not been possible to find out whether the HAS concepts have been put into practice and whether health education is actually occurring, or, if it is, to what degree of success and with what quality? The HAS team is clear it does not have the capacity to implement or monitor these programmes but it also feels a need to know if the efforts and resources put into developing such self-expansion schools are effectively used. It also appears that whilst the head teacher of the expansion schools may be interested in HAS, lack of involvement of the management of the schools means a lack of support for implementation of the health programme, as is seen in some AKES and government schools. The need to set up an association or network to address this has been identified, such as the concept of HEALTH – Health Education Association for Learners, Teachers and Health workers.

5.2. Curriculum Materials and the Child-to-Child Resource Centre

- A CtC resource centre was set up a year ago at IED as a joint resource centre for teachers and children with the Primary Education Resource Centre. Its aim is to generate and market materials and be a centre for CtC and school health training. Based on its action research, the HAS team have developed curriculum materials to enable teachers to follow teacher guides and lesson plans (topic cards) on 30 health topics, based on a scope and sequence chart on the themes Hygiene and Disease Prevention, Environmental and Community Health, Family and Social Health (Khamis, Shivji, Bhutta, 2002). (See Scope and Sequence chart in Appendix 1.) Teachers from both HAS pilot schools as well as expansion programmes have begun using these materials and emphasise how useful they are and how they provide enough direction to enable a teacher who has never taught health before to start. The TAWANA project based at the Community Health Services (CHS) at the Aga Khan University has shown an interest to use and translate these materials for their school

health education component, targeting 5000 Government schools around Pakistan, after receiving some training from the HAS team at the Child-to-Child Resource Centre. These materials, as well as the HAS starter guide on how to become a health promoting school and starter activities and posters, were originally envisaged to be packaged as a HAS starter kit in a canvas bag. However, feedback from the government sector and poorer rural schools shows that teachers feel more comfortable with the topic cards and related materials being packaged as a manual/ teacher guide. From the evaluation team's meeting with Professor Anita Ghulam Ali, Provincial Minister for Education, it appears that there is interest from the Provincial Government and potential to work with the Sindh Textbook Board to ensure that these materials are included in the textbooks.

5.3. Lessons Learned

- Most impact of HAS outreach and expansion activities appears to have occurred through partnerships with organisations already working in the field of health or education.

- Expansion has succeeded when programmes have been adapted and tailor made to suit the needs of the new programme based on HAS' lessons, rather than when the HAS model is exactly replicated.

- Where school health programmes have been developed with realistic goals in mind and building on the strengths of the implementing organisation, greater success is achieved.

- Capacity is developed when organisations are involved with the overall conceptualisation of the school health programme, as well as development of the detailed health action plans.

- More success is observed when the implementing organisation develops materials themselves through the training process, based on their own identified needs.

- Going to scale, without compromising on quality, appears possible (SEF, WASEP) particularly in the rural setting with small (one-teacher, multi-grade) schools where teacher turnover is negligible.

- Going to scale is difficult through self identified expansion schools where schools are scattered and there is no school support or capacity in the HAS team for follow up.

- The HAS starter kit should be packaged in a textbook/teacher manual format to ensure greater uptake.

5.4. Recommendations on outreach of HAS and future of pilot schools

- HAS is well placed to develop capacity in the area of health education and promotion in schools using the CtC approach. Its role should now shift to become a facilitator in developing capacity in other organisations, rather than as a direct implementer.

Implementation should occur only in a small number of action research schools that can continue to inform the academic area of health education at AKU-IED.

- **The role of the five HAS pilot schools has been extremely effective.** From this work HAS has been able to develop its model and refine its methodology. This could not have been achieved without the contribution of the children and teachers. However, the schools each have their own unique contexts, achievements and challenges and are not necessarily models or prototypes for others to replicate. The ownership and future direction of school health activities is their own. It is recommended that a synergistic relationship continues to be fostered between IED and the pilot schools, as health education 'co-operating schools'. The HAS project can continue to support them as their lead schools. When asked what kind of support from HAS was appropriate, heads and health coordinators from all the pilot schools stated that they would like a minimum of two visits per year, one to assist in developing the school health action plans and a second follow-up visit. However, they stressed that after all HAS' training inputs, the health coordinators should now be in a position to train and support other members of staff in their schools, and possibly also in other new schools. HAS could explore the idea of developing these experienced health coordinators as trainers. The pilot schools should also remain a focus for IED students to research and work with them on their primary education and health education courses. A few new schools may be identified for new action research in the next phase.

- Future expansion and outreach work would best be done through partnerships with NGOs and organisations working in the field of education and/or health. This would build on the partnership model developed in HAS' relationship with the Sindh Education Foundation. Interventions can thereby adapt the HAS model to their own context, being tailor-made, based on the health priorities, needs and strengths of implementing organisations and communities.

- It is also recommended that in the next phase, under a proposal to be submitted to IKEA, HAS works with a small group of schools for action research, in partnership with an organisation such as the FARAN Society in Orangi (Karachi). The model of partnership, in building the capacity of another organisation to promote the HAS model in schools, could itself be part of the focus for future action research.

As resources are tight, expansion is best targeted to the smaller rural schools. It is therefore recommended that a strategy be developed to promote capacity amongst the AKU-IED Professional Development Centres (PDCs) in the area of health education, particularly those based in more rural areas such as Gilgit, Chitral, and Khorog, so that PDCs can support these small, rural, community-supported schools.

- Training of facilitators must include materials development to support teachers/health workers to deliver health education. The action plans must also specify how support and follow up will be provided to the teachers and what monitoring mechanisms are in place. The focus should not be on just "doing CtC" or delivering health education, but on QUALITY teaching of health education.

- The Child-to-Child Resource Centre needs to develop a marketing strategy in order to increase its access and usage.

- The formation of a Health Education Association for Learners, Teachers and Health Workers (HEALTH) could be a platform for: *a.* sharing of experiences and ideas amongst programmes; *b.* follow up and monitoring of HAS inputs in capacity development; and *c.* further strengthening of capacity if HEALTH gatherings include activities in the CtC Resource Centre.

- The HAS team should actively and urgently take up the offer of the Provincial Minister for Education to liase with the Sindh Text Book Board to infuse the text books with materials from the topic cards.

SECTION 6: DEVELOPMENT AND SUSTAINABILITY OF HAS

6.1. Institutionalisation within the Institute of Educational Development

- Phase Two of IED's development programme includes 'Health Education and Promotion' as one of its core areas of focus. The other four thematic areas are: Early Childhood Development, Inclusive Education/Special Needs, Gender and Education, and Environmental Education.

- There was initially some concern amongst the HAS team that HAS was perceived as a separate, externally funded project and not a core part of IED's activities. However, discussions with the Director and other faculty members suggested a rather different viewpoint.

- HAS is seen as a stand alone project, but it is recognised in IED that it represents quality action research which guides the curriculum and teaching of Health Education within the Institute's teaching programmes. In essence, Health Education and Promotion is the academic subject area, with HAS providing an action research focus and practical example of theory applied to practice.

- There is, however, an issue of 'labelling' which may need to be clarified, for example, to demonstrate that HAS training is the same thing as training in Health Education and Promotion. Any distinction would relate not to content, but to the level of the trainees (since 'HAS training' has largely been conducted with teachers, as opposed to the Health Education elective for Masters students). At Masters level teaching, the example of the Health Action Schools is located within a broader theoretical framework. The principles, however, remain the same, grounded in the concepts of Comprehensive School Health Promotion, as advocated by WHO, the Child-to-Child Trust at the Institute of Education, London, and other institutions.

- While HAS receives funding from Save the Children UK for its project activities, it is estimated that IED in fact provides about 50% of its total running costs, in providing accommodation and other overheads. This represents a serious commitment from IED's side to HAS as a component of the Health Education and Promotion subject area. Some HAS team members have also been given permanent positions, including staff benefits funded by the Aga Khan University. This also indicates IED's commitment, as well as providing an important affirmation for the HAS staff.

6.2. Human resources

- The success of the HAS initiative has been owed in large part to the investment in developing human resources in the HAS team. It is vital that the strength and skills of the current HAS team is complemented by recruitment of a Faculty member for Health Education and Health Promotion, who can guide the action research process and overall management of the initiative, while developing the teacher education component within IED.

6.3. Action research at IED

- IED is committed to promoting a 'research culture' and is looking to stipulate a percentage of time that teaching staff would spend on research. Recently an Action Research Working Group has been established to support the design and help locate funding for research projects. It is acknowledged that HAS represents an excellent model for action research in demonstrating how research learning can directly inform the teaching programme.

6.4. Health Education component on Masters in Education programme

- In the Masters in Education programme at IED, Health Education and Promotion is taught for one week as part of the core course in Primary Education. It is also offered as one of five electives that M.Ed. students can take for a six week module. The other electives are the new thematic areas: gender, environmental education, early childhood development, and inclusive education. The other elective, Educational Management, is, however, acknowledged by faculty members to be of a different order. Over 90% of students in 2001 opted for this topic. As a result, although most students put Health Education as their second choice, there were no takers for the course. This problem is acknowledged and faculty are currently considering various options for ensuring that the new thematic areas are not thus marginalised.

- Integration across the teaching of other core subject areas is one option for these cross cutting themes. However, there is a recognition that the core subjects have their own natural claim to space. IED Director, Gordon McLeod, also suggested an alternative approach by which the thematic areas could be introduced under an overarching focus, such as the 'child-friendly school'.

- IED is moving towards developing more open learning options for its teaching programmes. An open learning module for the M.Ed elective is under development. It is hoped that there will be a greater up-take this year, although student numbers may still be limited if Educational Management is still given as an alternative option.

6.5. Certification of Health Education

- A proposal under consideration in IED also offers good opportunities for future certification of the kind of health education/promotion training given to teachers through the HAS project. This proposal is for a Certificate in Education, with a range of subject areas. The Head of Professional Programmes at IED, Dr Memon, suggested that Health Education be included as one of the options for this Certificate, to be presented to the Board of Graduate Studies. This Certificate in Education will likely require the equivalent of 8 weeks study, counted as 240 student learning hours spread over three months to one year. The training models used in HAS, which combine modules taught at IED with school based training and supervision, could easily be developed to fit this framework.

- Accreditation of the teacher development through HAS programmes is considered important for teachers' motivation and to provide recognition of their professional skills. The idea of developing 'master trainers' in HAS to support fellow teachers would need to be underpinned by such a process of formal certification.

6.6. Outreach for HAS training through Professional Development Centres

- Like the M.Ed module, it is also likely in the future that this Certificate could be developed as an open learning module. In this case, it is possible that the lessons learned through research on the HAS project could be disseminated through the Professional Development Centres (PDCs) of AKU-IED and the AKES in South and Central Asia, the Middle East and Africa. The PDCs work in the context of rural communities. In the overall strategic vision, IED provides the academic input, while the PDCs run the training and outreach programmes. This offers an excellent opportunity for sharing the theory and practice of Health Education and Promotion, including the HAS approach, adopting a more holistic and field based approach to reach the target audience. In the next phase, HAS could also explore the possibility of sharing its model with all of IED's 'co-operating schools' in Pakistan.

6.7. HAS as focus for IED students' research

- The extensive documentation in HAS could provide material for many research projects. As the Mid-Term Review stated, there is "enough for five PhDs". The head of Research and Policy Studies at IED, felt this to be a good opportunity for students, stating that M. Ed students, who take the Health Education elective module, should be encouraged to focus on HAS for their dissertation. Such linkages may also be possible when the PhD programme at IED begins in 2004. There may also be possibilities for researchers from other institutions to discuss connections with IED to undertake research on HAS.

6.8. Conclusion

- In conclusion, there was evidently a strong commitment within IED to maintain and enhance the teaching of health education and promotion. The HAS project is regarded as providing a highly positive model of action research which should continue to inform delivery of education and training through IED and other training centres.

- The Health Action Schools Project has made a remarkable contribution to the development of active learning approaches for school health education, which have already influenced practice in Pakistan and internationally, through the Child-to-Child network, where it is used as a model for training. Its *Quest for Quality* has involved a courageous and rigorous learning process, which has provided significant developments in the field of Comprehensive School Health Promotion. But this pilot phase has marked just the beginning of HAS' story. Through its commitment to on-going learning, and with support for its action research, HAS can continue to play a major role in promoting children's participation and active learning for health. Its methodology and findings should be widely disseminated through partners in Pakistan and internationally via its networks in the Aga Khan Development Network, through the Save the Children Alliance, and through the Child-to-Child Trust. The HAS initiative merits support to enable it to continue to maximise its full potential.

HAS proposed curriculum scope and sequence chart

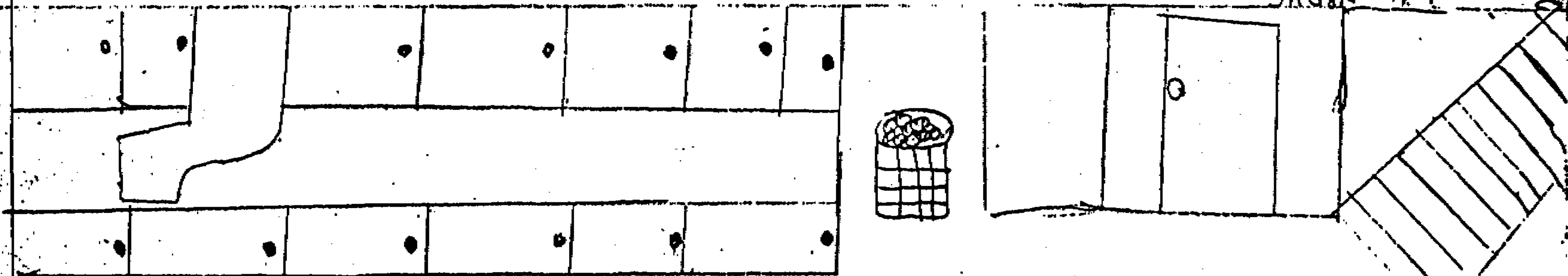
CLASS		HEALTH THEME: ENVIRONMENTAL HEALTH	HEALTH THEME: FAMILY & SOCIAL HEALTH
1	Clean Hands Our Teeth	Clean Schools Clean Homes	Playing with young children Understanding Children's Feelings
2	Food at home Food Hygiene	Home Safety Preventing Accidents	Caring for children who are sick Proper use of Medicine
3	Looking after our Eyes Growing Vegetables	First Aid Road Safety	Children with disabilities Helping children who do not see or hear well
4	Coughs, Colds, Pneumonia (A.R.I.) Immunization	Diarrhoea Clean, Safe Water	Feeding young children Breastfeeding
5	Polio Malaria	Children's Stools & Hygiene Intestinal Worms	AIDS Smoking – Think for Yourself

Appendix 2

Examples of Children's Research

1. **Draw and write:** ***"What have you done to help another child be healthy and happy?"***

2. **Communication map:** ***"Who do you talk with and what do you talk about?"***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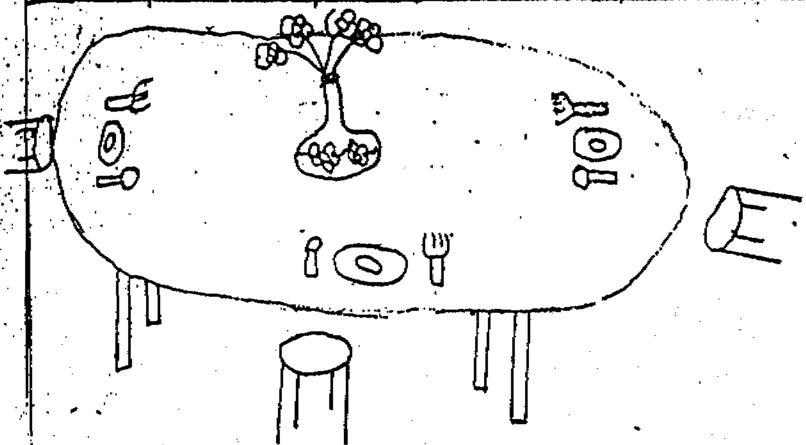
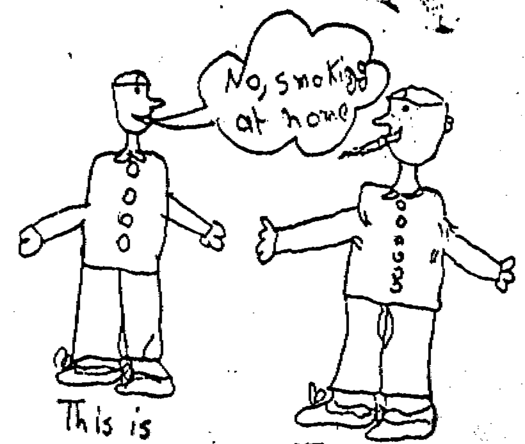



No, smokigg at home
This is me
This is My cousin It is 45
old

HEALTH

1. I saw a boy was not wash herband After toilat
2. I say wash your hand after toilat

میرا نام حسین بخش ہے میں ایک دن روڈ پر چل رہا تھا

میں نے دیکھا کہ ایک اندھا روڈ پار کر رہا ہے میں نے اس کا ہاتھ پکڑا
اس کو روڈ پار کروایا میں یہ میسج دینا ہوں کہ آپ بھی
کسی اندھے کو دیکھیں تو اس کو روڈ

پار کروا دیں

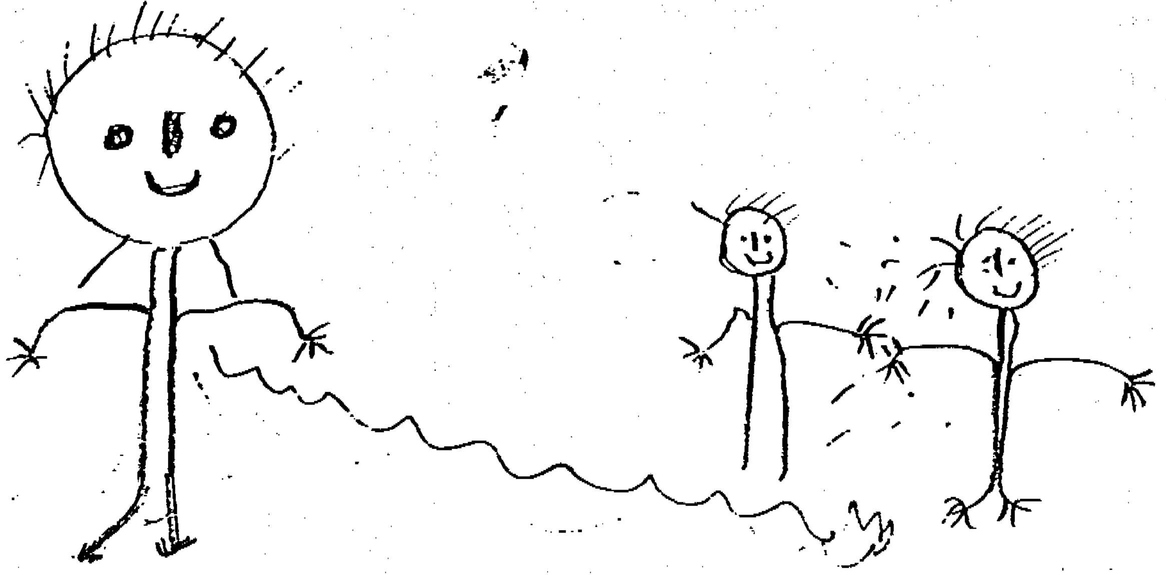
Hussain

بخش

My name is Hussain ~~to~~ one day
I was walking a road. I saw a blind man who
wants to cross the road. I helped him to cross
the road; I ~~give~~ want to give a message to
You that you help the blind to cross the road.

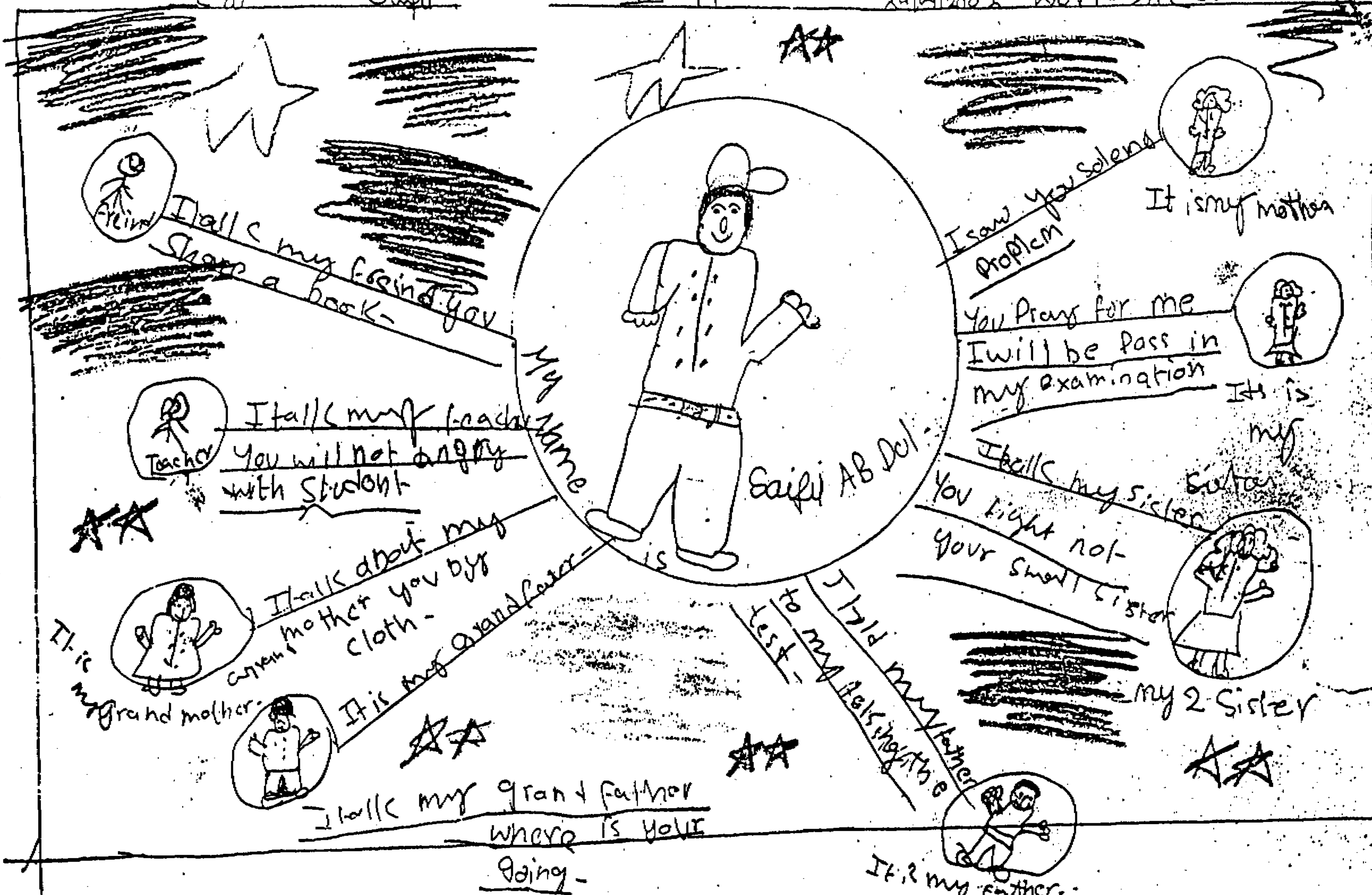
Name: Ismail Class: VIII Metroville Community School Karachi.

Draw and Write how did you help in school?

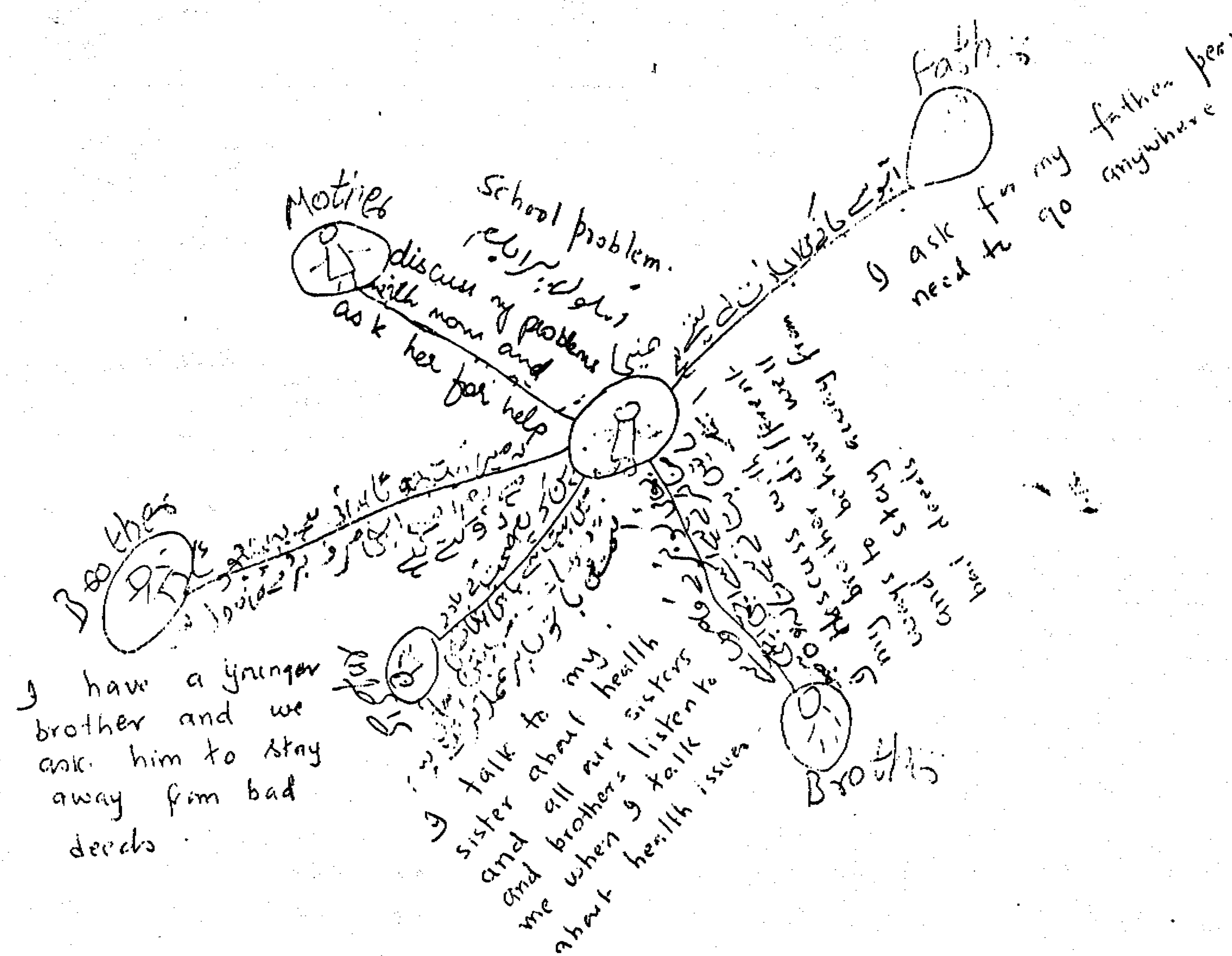


جب میں راستے سے جا رہا تھا۔ تو راستے میں جا کر دیکھا کہ دو
لڑکے لڑائی کر رہے ہیں۔ تو میں نے پوچھا۔ ارے بھائی کیوں
لڑائی کر رہے ہو۔ اتنے میں وہ دو لڑکے میرے کو بولا
آپ کو ہمارے سے کیا تعلق ہے۔ آپ جا۔ تو میں اُن کو
سمجھایا تو اُن کو لڑائی کرنے نہیں دیا۔ یہ میں نے مدد
کی تھی

on my way (not mentioned where) I saw two boys fighting. I went and asked them why they were having a fight. Initially they didn't like my interference but I continued and finally succeeded to help them stop fighting.



Saifi
IV - H
24/4/2003 Work sheet
My Name is Saifi AB Dol.
I talk my freind you share a book.
Freind
I talk my teacher you will not angry with Student
Teacher
I talk about my cousin's mother you buy cloth.
It is my grand mother.
It is my grand father.
I talk my grand father where is your going.
I tell my father to my help in the test.
It is my father.
I saw your solen problem
It is my mother
You Pray for me I will be Pass in my examination
Its is my Sister
I talk my sister you fight not your small sister
my 2 Sister



Atiya Rani