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The Girls' Education Literature Review



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Explanation of Project Codes¹

| | |
|-------------------------|--|
| AFG90- | Huth, K. (1993) |
| BAN79- (BRAC) | Prather, C. (ed.) (1993) |
| BF7- | McSweeney, B. and M. Freedman. (1980) |
| EGY92- (UNICEF) | UNICEF. (1994) |
| ETH86 | Abraha, S. et al. (1991). |
| GHA91-94 (PREP/EIP) | Wolf, J. (1995) |
| GUA85-90 | AED. (n.d.) |
| GUA87-94 (AGES) | Nieves, I. et al. (1994) |
| GUA9- (NEU) | De Baessa, Y. (n.d.) |
| GUA91 (BEST) | Chesterfield, R. and F. Rubio. (1996) |
| IND79-87 | Naik, C. (1987) |
| IND9- | Irvine, J. (n.d.) |
| LIB8- (IEL) | Boothroyd, R. and D. Chapman. (1987) |
| MALI89 (BEEP) | Diane, K. et al. (1993) |
| MLW91-96 (GABLE) | Sutherland, H., R. Kheradjou, and P. Prunier. (1994) |
| MLW93- (ABEL II) | Hyde, K. et al. (1996) |
| MLW94 | Bray, M. (1994) |
| NEP81 (Cheli Beti) | Chlebowska, K. (1987) |
| NEP85-90 | USAID/Nepal. (1985) |
| PAK78- (Mosque Schools) | Anderson, M. and N. Chaudhry. (1989) |
| PAK79-85 (PEP) | Malik, A. (1990) |

¹ Full citations for these documents can be found in the Strategies Data Base bibliography (Appendix A).

| | |
|-----------------|---|
| PAK88-89 | Warwick, D. and H. Jatio. (1994) |
| PAK90 (PED) | AED. (1994) |
| PAK93-98 (NWFP) | Education Department, Government of North West Frontier Province (NWFP), Pakistan. (n.d.) |
| PAK95- (SGPEP) | Hooper, E. et al. (1995) |
| TLD89 | Jiminez, E. and M. Lockheed. (1989) |
| UK86 | Reay, D. (1990) |
| US90 | Cain, B. and E. Hitty. (1991) |
| US93 | Atkins, M. and C. Rohrbeck. (1993) |
| US96 | Minter Hoxby, C. (1996) |
| ZIM92 | CAMFED. (1994) |

Executive Summary

Girls represented 60 percent of the school-age population not attending school in developing countries in 1990. In many regions, this figure will not improve in the near future. By 2000, the number of girls aged 6-11 who are out of school is expected to increase in regions such as sub-Saharan Africa, the Arab States, and East Asia/Oceania. Experts, governments, international organizations, and communities have recognized this problem and implemented a wide variety of interventions to address it over the last 20 years. Anyone seriously interested in designing projects that address girls' low enrollment and persistence in school might expect to be able to draw from the literature the lessons and experiences of other projects, select the most promising and situationally relevant interventions, and build more effective projects. Planners have practical questions: Which strategies work for which problems? In what environments do these interventions work? Are the objectives and outcomes expressed in measurable terms? What is the scope of the project? What are the costs?

The Girls' Education Literature Review, prepared by the Girls' and Women's Education Activity, summarizes and allows analysis of girls' education interventions. The literature review was conducted to yield useful information to policy makers, planners, donors, educators, and contractors who are working to improve girls' access, persistence, and achievement in primary education in developing and developed countries.² The review is a first attempt to assess the available literature to highlight important interventions. We hope that the information in this literature review will make past experience available for use in current and future designs, interventions, and policies.

The literature review includes all primary literature from projects, academic research, and policy studies that could be located during a four-month search. It analyzes these projects in order to identify successful interventions and the circumstances of and rationale for their success. Currently, it is difficult to draw sound lessons from the primary literature alone. Reports are often not sufficiently detailed to draw reasonable inferences and information is often missing.

From the information available, the interventions most commonly described as successful are alternative programs (i.e., outside the formal school system) that prepare girls to enter the formal system. These include community schools, nonformal education programs instituted by nongovernmental organizations, and literacy programs for out-of-school girls. Six other interventions were reported to have positive *and* statistically significant results in some circumstances: bilingual education, interactive learning, scholarships, local and female teachers, programmed learning, and single-sex schools. These interventions appeared to be unsuccessful in other circumstances, therefore, it is important to have environmental, implementation, and cost information (not all of which is now available) to make judgments about replicability.

Implementers and documenters of girls' education interventions should ensure that literature on their experience is made more accessible. Conventions for reporting on projects need to be improved as better documentation of interventions and outcomes in the field of girls' education will enable policy makers, planners, designers, and researchers to build on lessons learned.

² Problems of access and persistence are not as serious in developed countries, so much of the literature focuses on achievement.

Finally and most important, the interventions that seem successful should be further analyzed, as more detailed information becomes available, to understand the model and the circumstances under which the intervention succeeded.

The Girls' Education Literature Review

Background

Education is a critical ingredient in national plans for economic and social development in developing countries. Most countries now recognize that the social and private rates of return from education are well worth the investment. Education strengthens a nation's human capital, builds capacity, helps to reduce poverty by improving productivity, and equips people to participate more fully and effectively in civil society, leading to stronger institutions and better governance. At the individual level, education expands and enhances options across a range of life activities.

Lower fertility, reduction in child mortality, and improved child health are all associated with increased number of years of female education. When women obtain employment, the returns to investment of women's education are even greater than those to men's. In most countries, therefore, educational rates of return make girls an excellent investment. Indeed, in some areas such as parts of sub-Saharan Africa, where enrollment rates at the primary level are some of the lowest worldwide, and where social and private rates of return are higher than for any other region, governments are particularly desirous to capitalize on education as a catalyst for growth. Girls' education is receiving special attention because of its additional benefits, as well as for reasons of equity. How to get girls into school, keep them there, and improve their performance are major challenges facing increasing numbers of governments and donor agencies.

Despite these development opportunities, in few other areas of investment in which potential is so high, good will and commitment present, and donor support enthusiastic can there be so serious a lack of information on how best to proceed. Bellew and King (1993, p.315) have pointed out that "few strong conclusions can be drawn about the relative effectiveness, especially the cost-effectiveness, of various measures designed to raise girls' and women's participation in education programs." Tietjen (1991, p.81-2) notes a range of problems associated with drawing conclusions from the literature—these range from lack of gender disaggregation and little or no provision of cost information to weak data, limited quantitative analysis, and inadequate evaluation criteria or no evaluation at all.

Thus, governments and donor agencies interested in implementing programs to improve girls' participation in education often must draw what lessons they can from project reports, literature reviews (which are second- or third-hand), or glossy, semipromotional literature circulated by donor agencies or commercial subcontractors. What is often missing in such reports is the project's environmental context; the extent of its scope (local or national); its costs; and whether other factors confounded its results. Often, little information is provided on why interventions were or were not successful, including what else must be in place for success. As a result, projects designed to meet the cultural constraints and opportunities in one country are contemplated for wholesale adoption in another whose cultural context is different, or a project that improved girls' enrollment or achievement in a few localized settings in one country is offered as a model for national promotion in another. We may be perpetrating unsuccessful or infeasible interventions at the expense of lower-cost and more successful ones.

Format

The Girls' Education Literature Review was undertaken with the insufficiency of information in mind. It is an attempt to bring together the major facts about the variety of interventions that have been tried, and using the available literature, to understand what has been successful or unsuccessful in increasing access, persistence, and achievement for girls, in what circumstances, and why. What does the literature tell us, what might we reliably take from it, and where might improvements in reporting be made in future?

This literature review includes detailed primary documents — official project designs, reports, and evaluations, as well as firsthand research. These are the most reliable sources of information on projects available, outside of a visit by an expert evaluator or interviews with people familiar with the project. Using the primary documents also allows us to assess the quality of the written information available and to recommend how to improve reporting of projects in the future.

Types of Literature Reviewed

Much of the detailed information needed to understand interventions is found only in primary sources. We therefore restricted the information in this literature review to *original project documents, technical reports (which may or may not be part of the project cycle), published academic research on the effects of various interventions, and detailed analyses of policy change*. As literature reviews are, by definition, second- (or third-) hand, we did not include many well-known reviews of literature on girls' education in this study.

A second decision to focus exclusively on interventions (specific solutions put into practice) explains why another large range of material is excluded. Much of the literature on girls' education focuses on the nature and extent of the problems and progress in the field; the benefits of educating girls; determinants or characteristics that influence girls' participation in education; the economic, institutional, and cultural barriers to girls' education; and recommendations for future policy and project interventions.

Our searches produced more than 3,000 titles on girls' education. Over 250 of these that appeared to describe interventions were read for possible inclusion. At the close of this first round of searching, the number of documents qualified for inclusion was 52 (see Appendix A for a complete listing of these documents).³ These 52 were primary documents, which could be found in a four-month period, that deal with interventions to improve girls' access (enrollment), persistence (completion of primary school), or achievement (performance) at the primary level in developing or developed countries. The aim was to use documents that can provide information on the outcome of these interventions; however, we also included design documents in order to

³ The literature used in the Strategies Data Base was obtained from a variety of sources such as USAID's Development Information Center, the Support for Analysis and Research in Africa document collection at Creative Associates International Incorporated, and Women's Resources International. The collections of documents held by many organizations active in girls' education were drawn upon, including the Academy for Educational Development, Global Vision, the Center for International Education at the University of Massachusetts, the Centre for Development and Population Activities, the Education Development Center, the American Association of University Women, and the Women's Educational Equity Act (WEEA) Equity Resource Center.

get more information about objectives and interventions chosen, as well as pre-intervention data and environmental information.

Girls' education activities in developing countries are relatively new: much of the literature dates from the 1980s and 1990s. In the World Bank, for example, out of 34 recent education projects for which project completion reports have been filed, only five concern themselves with girls' education. (Other projects, of course, are currently in operation.) At USAID, three girls' education projects have been completed and 11 girls' education projects or basic education projects with girls' components (including the Girls' and Women's Education Activity for which this study was prepared) are underway. A number of these have not been evaluated. The body of literature is small.

The 52 documents cover 17 countries from the regions shown in Table 1. The most common type of document (14 items) is what we deem a "technical report;" that is, a report by a consultant that is not a standard component in the project cycle literature, such as project designs (of which there were 10), midterm evaluations (9), or final evaluations (5). Other kinds of materials include 10 academic articles published in international journals, and one each in the categories of baseline study, policy/planning document, annual report, and workshop materials.

Table 1: Regions and Countries Represented in the Documents

| | |
|----------------------|---|
| Africa | Burkina Faso, Egypt, Ethiopia, Ghana, Liberia, Malawi, Mali, Zimbabwe |
| Latin America | Guatemala |
| Asia | Afghanistan, Bangladesh, India, Nepal, Pakistan, Thailand |
| Other | United Kingdom, United States |

These documents focused, in 41 instances, on projects; 6 reported on policy change, and 5 were "studies"—that is, they examined an intervention cross-culturally or cross nationally. Studies of the efficacy of single-sex schools, for example, fell into this category.

Methodology

The researchers developed a coding scheme for the literature review based on the information that they would want as practitioners, were they to be charged with implementing a particular intervention. The coding scheme was designed independently of the actual documents, with the knowledge that some of the information asked for (environment, research methodology for conducting evaluations, costs, etc.) would often be absent. By starting from what we wanted to know and using only documents produced by projects and studies, it became possible to see whether our questions could be answered through such sources.

Through reading, we hoped to have sufficient information about the following:

- ◆ Pre-intervention or baseline data: What was the situation before the interventions began?
- ◆ Environment in which interventions took place: What was the structure of the educational system, if relevant; the population density where the interventions were implemented (rural, urban, low); prevailing cultural attitudes and practices towards girls; existing policies; etc.?
- ◆ Barriers to be addressed by the interventions: What are the barriers to girls being educated that the interventions are intended to address and why?
- ◆ Specific interventions: What were the specific interventions implemented, what was the objective of each in relation to the barriers and intended outcomes, and how were they combined? For example, was there a package of interventions that was implemented together in each school or community or was one thing done in one place and another elsewhere?
- ◆ Implementation: How were the interventions implemented in the field, and what changes were there from the original plan?
- ◆ Date and length of interventions: Was each piece implemented simultaneously or not, and at what stage is the current report being written?
- ◆ Level of involvement by community and other sectors (if applicable): If these were community or school-based interventions, was the community involved in designing and implementing the interventions? What other sectors, such as the private sector, government, donors, nongovernmental organizations, the religious community, teachers, the media, etc., were involved in this intervention and how?
- ◆ Cost of project and sources of funding: How much did the project cost and which of these costs were related to the girls' education interventions? Was there local or government funding for the interventions, rather than donor funding?
- ◆ Basis and evidence for conclusions: What methods were used to draw conclusions about the interventions and with what evidence? If sampling was used, how was the sample chosen and what was its scope (national, one location, etc.)?
- ◆ Outcomes: What were the outcomes and how are they measurable? Are any of these results statistically significant?
- ◆ Confounds addressed (factors that could influence the results measured and so invalidate them): Which of the possible confounds to the reported results were addressed when measuring outcomes?

How did we choose these issues? In addition to looking for some basic information (duration, costs, etc.) we were guided by the concept of the "thought experiment." Thought experiments are attempts to consider research questions *as if it were possible* to test them in true experiments (Bernard 1985:72). This is most likely to be the case when the phenomenon under investigation has already occurred (the project, for example); another case is a situation in which it would be unethical or impractical to construct an experiment. Since most projects have not been constructed to meet the requirements of a controlled experiment, the next best hope of drawing conclusions is to construct a "thought experiment" by deciding what information would be needed to reduce threats to validity and draw sound conclusions. Thus, it is possible to identify variables through which, if information is available, we can move closer to the kind of information we would get if we could get experimental data. Information on the variables listed here, if available for a project, would supply us with some of those data.

Problems Encountered

The key to the problems encountered in trying to conduct the literature review lies in the phrase “working from the available literature.” First, the primary literature was difficult to access. Availability differed by type of material. Published academic studies were easily accessed through literature searches. For example, Jiminez and Lockheed’s (1989) study compares the effects of single-sex schooling and coeducation in Thailand, while Abraha et al. (1991) examine school qualities for an explanation of girls’ persistence and achievement. Next in order of difficulty of access were analyses of policy change, which were sometimes available through literature searches. Most difficult of all to find were institutional project documents, i.e., project designs, midterm and final evaluations, and technical reports. Such documents are usually published for internal institutional circulation, and depending on the organization and the circumstances, may be archived and accessible to employees and specialist readers, but almost never to the public. Documents are not always prepared for the full project cycle. For example, final evaluations may not have been completed, and some organizations such as the World Bank that have a rigorously kept sequence of project documents do not allow their documents to be cited by the public.⁴

How accessible should the literature be? It is understandable that certain organizational literature must have restricted circulation. It is rare, however, except in relation to World Bank documents, that the difficulty in finding documents stems from their confidentiality. Instead, the problem is simply lack of proper archiving and lack of interest by many organizations in providing primary data, as opposed to semipromotional literature, to the interested public.

The literature’s elusiveness is discussed not only to explain the difficulty in preparing the literature review but also to highlight the even more serious difficulties a policy maker or planner in a developing country would have in obtaining sufficient information on the possible options for improving girls’ participation in education and the likely prospects of each. Unless policy makers and planners are to travel the world reviewing projects, the literature is their first recourse. Even if travel is possible, choosing destinations judiciously requires good accounts of projects. It is difficult to make good decisions about effective interventions if lessons learned by others in analyzing, designing, and implementing strategies are not shared. The information required to draw these lessons could come in the form of internal project documents or in summary form, such as through this and similar literature reviews.

Second, no document reported everything we consider relevant to understanding the circumstances under which an intervention was implemented and which contributed to its success. This does not mean that the documents are not useful, but questions remain that we would want to answer before attempting to duplicate such interventions. Some documents are more complete than others: for example, Rihani (1991) gives a project design that responds to most of our questions. In other cases, major categories of information are missing. In several, it is difficult to identify the interventions themselves. Sometimes outside factors influenced the outcomes of the intervention, but these were not discussed. Baseline information was often

⁴ Shortly after this first round of analysis, World Bank Staff Appraisal Reports were made available to the public for citation. However, at the time of coding they were not, and thus are not yet included in this literature review.

missing. As can be seen in Appendices E, F, and G, almost never was environmental and contextual background presented to enable a potential adapter to make a decision about whether similar circumstances prevail. Specific problems include the authors of one report stating that only one part of the original plan of action had been implemented, without specifying which. Many reports fail to differentiate among interventions—failing, for example, to tell whether all the items in a package had been implemented in the same place, or separately. Reports also fail to provide information on a project's duration, the stage at which interventions were implemented, or the stage at which the report was being written.

Third, a single project produces many official documents—project design, midterm evaluation, final evaluation, etc. We used all primary documents available, since, having read the literature, we discovered that no one item was likely to present a complete picture. The difficulty in using many documents to present a project adequately arises when individual documents do not agree—for example, the design document and the midterm review differ on what the interventions actually were, since they may have changed in the process of implementation. The scope of the project may also have been expanded or restricted. Even with the limited number of documents that qualified for inclusion in this literature review, we encountered many such contradictions.

Finally, as we read the documents, we were occasionally aware that that not all education experts, governments, or recipients agree with the assessment being presented in the literature. The next logical phase in the completion of the literature review, therefore, would be to use interviews and other sources of information to fill in the gaps and resolve discrepancies between and among project documents.

A subset of the literature reviewed, numbering 31 documents, was used in developing the findings expressed in this report. Ideally, there would be no discrepancy in the information provided in multiple project documents, but this is often not the case. In some instances, the project cycle documents do not agree on what the actual interventions were, or what their aim was. Such discrepancies could be resolved through interviews. Interviews were not conducted in this stage. Instead, the document with the most complete information on the topics listed above was chosen as the prime document for each project for the purpose of this analysis. If two documents on a project were equally informative, the latest was chosen.

Findings of the Literature Review

At this stage of its development, can we tell from the literature review which interventions have been reliably successful and which have not, which ones work in which kinds of environments, and why? As yet, there is not enough reliable literature to warrant statistical analysis. This literature review supports the claims previously made by, for example, Tietjen (1991) and Bellew and King (1993) that there is insufficient evidence on which to make informed judgments about strategies. The most that can be done is to make simple descriptive statements, note intriguing points, and isolate issues and questions worth pursuing. As future interviews, surveys, or other supplemental data expand the knowledge base and as further literature is identified and new literature appears, patterns will be more clearly identifiable.

Interventions

Table 2 shows the interventions reflected in the 31 documents (see Appendix C for a further breakdown by type of intervention). While only one intervention was directed at national/policy changes, the other 116 interventions were evenly distributed across the four categories of teachers, schools, curriculum, and community programs.

Table 2: Interventions by Type as Reported in the Documents

| Category of Intervention | Teachers | Schools | Curriculum | Community Programs | National/Policy |
|--------------------------|--|--|--|---|--------------------------|
| | Selection - 13 Training - 11 Economic incentives - 3 Other incentives - 2 | Provision - 25 Facilities - 1 Administration - 6 | Special programs - 9 Revision - 6 Material - 9 | Media - 2 Sensitization - 1 Mentoring - 4 Economic incentives - 12 Participation - 12 | Policy/legal changes - 1 |
| Total | 29 | 32 | 24 | 31 | 1 |

Some projects, such as the Primary Education Development (PED) project in Pakistan and the Basic Education Expansion Program (BEEP) in Mali, each had as many as 13 interventions (see Appendix D for interventions associated with each project/study).

Of the 117 interventions, most were intended to address more than one educational aim (see Table 3). The largest number of interventions, 53, had as their aim increasing access, persistence, and achievement. Access is the most common goal of interventions, while the achievement of girls who are in school is focused on least.

Table 3: Interventions by Aim, as Reported in the Documents

| Aims of intervention | Number of interventions | Interventions used | Project/study |
|------------------------------------|--------------------------------|--|---|
| Access only | 21 | Textbooks (3) Alternative or preparatory programs (3) Alternative facilities Local female teachers Flexible schedule/calendar (2) Single-sex schools Community management Culturally appropriate curriculum Formal pedagogical training Childcare Local teachers Increased number of schools | AFG90- BF7- NEP81 (Cheli Beti) NEP85-90 PAK78- (Mosque Schools) |
| Persistence only | 1 | Sex education | GUA87-94 (AGES) |
| Achievement only | 9 | Group work/peer teaching (2) Single-sex classes (2) Programmed materials Programmed learning Female teachers Gender-appropriate curriculum Single-sex schools | GUA9- (NEU) LIB8- (IEL) PAK88-89 TLD89 UK86 US93 US96 |
| Access and persistence | 19 | All or most costs covered Local female teachers Formal pedagogical training Flexible schedule/calendar Alternative facilities Alternative or preparatory programs (2) Community management - administration (3) Community management - teacher-related Community management - school-related Scholarships Interactive learning Fee waivers Gender-appropriate curriculum Media campaigns Transportation for teachers Increased number of schools | BAN79- (BRAC) GHA91-94 (PREP/EIP) GUA91 (BEST) MLW91-96 (GABLE) MLW94 PAK95- (SGPEP) |
| Access and achievement | 0 | | |
| Persistence and achievement | 8 | Community management Reduce class size Formal pedagogical training Female teachers Community mentoring Scholarships Subsidies Provision of school supplies | EGY92- (UNICEF) ETH86 GUA87-94 (AGES) ZIM92 |

Table 3 (continued)

| Aims of intervention | Number of interventions | Interventions used | Project/study |
|--------------------------------------|-------------------------|--|---|
| Access, persistence, and achievement | 53 | Increased number of schools (2) Local teachers (2) School supplies/uniforms Alternative or preparatory programs (5) Bilingual education (2) Scholarships (2) Community mentoring (2) Community management - administration (5) Provision of other materials Culturally appropriate curriculum Classroom management training Flexible schedule/calendar (2) Textbooks (4) Formal pedagogical training (5) Gender-appropriate curriculum Female teacher trainers Improved work conditions for female teachers Child-care programs Incentives for female teachers Media campaigns Community sensitization programs Classroom construction Female teachers (5) Restricted, focused curriculum Single-sex schools (2) Provision of alternative facilities Interactive learning Policy/legal changes | EGY92- (UNICEF) GUA85-90 GUA91 (BEST) IND79-87 IND9- MALI89 (BEEP) MLW93- (ABEL II) NEP85-90 PAK90 (PED) PAK93-98 (NWFP) |

The eight most common interventions are:

- ◆ female teachers
- ◆ formal pedagogical training for teachers
- ◆ alternative or preparatory programs for girls
- ◆ flexible calendar/schedule
- ◆ community management of schools
- ◆ provision of textbooks
- ◆ curriculum revision (gender and cultural)
- ◆ community economic incentives (i.e., interventions that involve direct financial assistance to the girl or her family, such as scholarships, subsidies, fee waivers, costs covered, school supplies/uniforms).

When one of these interventions is used, are there others that are often used in conjunction? The clustering is fairly predictable. Interventions such as community management, female teachers, alternative school facilities, and single-sex schools are often implemented together. Interestingly, provision of textbooks and curriculum revisions are associated with flexible schedules and calendars. Female teachers are often recruited and then given formal pedagogical training, and scholarships or other direct economic incentives are often coupled with a sensitization campaign. Table 4 shows the associations.

Table 4: Common “Clusters” of Interventions

| | |
|---|--|
| <p>With alternative or preparatory programs:</p> <ul style="list-style-type: none"> • Flexible schedule/calendar • Increased number of schools • Provision of alternative school facilities • Community management • Child-care programs. | <p>With flexible schedule/calendar:</p> <ul style="list-style-type: none"> • Local teachers • Provision of textbooks • Curriculum revision (especially cultural) |
| <p>With community management:</p> <ul style="list-style-type: none"> • Female teachers • Single-sex schools • Provision of alternative facilities • Alternative or preparatory programs | <p>With textbooks (provision of):</p> <ul style="list-style-type: none"> • Flexible schedule/calendar • Curriculum revision (especially cultural) • Single-sex schools |
| <p>With formal pedagogical training:</p> <ul style="list-style-type: none"> • Female teachers | <p>With direct economic incentives to girls and their families:</p> <ul style="list-style-type: none"> • Media campaigns/community sensitization programs |
| <p>With female teachers:</p> <ul style="list-style-type: none"> • Formal pedagogical training • Community management • Single-sex schools • Provision of alternative school facilities | <p>With curriculum revision:</p> <ul style="list-style-type: none"> • Textbooks • Flexible schedule/calendar |

In the case of “alternative or preparatory programs,” it should be clarified that the list in Table 4 represents the *most common features* of alternative educational programs (those outside of the formal public school system).

Objectives and Outcomes

Single interventions. It is interesting to look first at the projects that had single or identifiably separate interventions related to outcomes (Table 5). Few projects or studies test or implement one intervention only. Some, however, are careful to separate the elements of their program. For example, the Basic Education Strengthening (BEST) project in Guatemala implemented *Eduque a la Niña* (three competing packages of incentives for girls) and compared these programs’ results with those of two other education programs.⁵ In the PED project, home schools for girls

⁵ BEST focused on improving the efficiency, coverage, and quality of basic educational services to underserved populations, such as indigenous groups, isolated rural communities, and girls. There were three major classroom innovations: DIGEBI - bilingual education; Nueva Escuela Unitaria (NEU) - interactive learning; and Eduque a la Niña - incentives for encouraging girls to stay in school. The last had three “packages”: package 1 consisted of community mentoring and community management; package 2 had scholarships, community mentoring, and community management; and package 3 provided “other materials” (nontextbook learning aids).

The document on BEST chosen for analysis (GUA91) compared the outcomes of Eduque a la Niña with those of NEU and DIGEBI. It did not mention the fact that Eduque a la Niña consisted of competing packages or how the results of three separate packages were combined into one set of outcomes. Because the approach was so interesting and unusual, however, this report was used and we departed from our usual coding practices, bringing in information from other BEST reports to round out the information on Eduque a la Niña.

was one of many interventions, but was clearly separate from the changes made in the larger public school system such as teacher supervision, allowing girls into boys' schools, classroom construction, etc.

The results of those interventions able to be examined singly are not particularly revealing. Bilingual education meets its goals of access and persistence in the evaluation of PRONEBI in Guatemala (GUA85-90), but has mixed results in BEST. Interactive learning materials appear to be successful in increasing access and persistence in the BEST project. "Other materials" (nontextbook learning aids) improved access in BEST but had mixed results for persistence. Four studies looked at single interventions to improve achievement (Table 6). These showed single-sex schools as being successful in Thailand (TLD89) but single-sex classes having mixed results in a U.S. study (US96). Group-work and peer teaching are reported as having improved performance in another U.S. study. Other information on these projects, such as whether costs were reported, and whether details of the environment were provided, is reported in Appendix E.

Table 5: Single Project Interventions with Measurable Objectives and Outcomes

| Intervention | Improved Access | Improved Persistence | Improved Achievement | Subject of Source |
|----------------------|------------------------|-----------------------------|-----------------------------|--------------------------|
| Bilingual education | Yes | Yes | Not reported | GUA85-90 |
| Bilingual education | Mixed | Mixed | Not reported | GUA91 (BEST) |
| Interactive learning | Yes | Yes | Not reported | |
| Other materials | Yes | Mixed | Not reported | |

Table 6: Single Study Interventions with Measurable Outcomes

| Intervention | Improved Access | Improved Persistence | Improved Achievement | Subject of Source |
|----------------------------|------------------------|-----------------------------|-----------------------------|--------------------------|
| Female teachers | _____ | _____ | Mixed | PAK88-89 |
| Single-sex schools | _____ | _____ | Yes | TLD89 |
| Group work & peer teaching | _____ | _____ | Yes | US93 |
| Single-sex classes | _____ | _____ | Mixed | US96 |

Note: A blank line in an outcome column indicates that no result is reported because that item was not an objective of the project.

The remaining projects/studies had multiple interventions. We look first at interventions in terms of their stated aims. Project designs were excluded from this examination as they have no information on outcomes. A total of 94 interventions remained.

Access. Seventy-eight interventions had the improvement of access as their intended outcome (Table 7). Out of these, the outcome of 23 was not reported. Four did not achieve their aim, and

one had mixed results, leaving 50 that claimed to achieve their goal. These 50 interventions are associated with ten projects. The majority of interventions implemented to improve access focus on schools (provision of buildings and programs) and communities (economic incentives and sensitization campaigns as well as community management of schools). Local and female teachers are believed to raise girls' enrollment and so incentives and training programs have been devised to increase the number of women becoming teachers. Bilingual education, curriculum revision, and provision of textbooks (combined with other interventions) have also been successful in these projects.

Table 7: Successful Access Interventions as Reported in the Documents

| Interventions | | Projects |
|--|--|-------------------------|
| <u>Teachers (10)</u> | <u>Community (15)</u> | BAN79- (BRAC) |
| Local female teachers (2) | Community management -administration (4) | EGY92- (UNICEF) |
| Local teachers (2) | Community management -teacher-related | GUA85-90 |
| Female trainers for teachers | Community sensitization programs | GUA91 (BEST) |
| Formal pedagogical training for teachers (2) | Media campaigns | IND79-87 |
| Incentives for female teachers | Fee waivers | MALI89 (BEEP) |
| Improved work conditions for female teachers | All or most costs covered | MLW91-96 (GABLE) |
| Classroom management training | School supplies/uniforms | NEP 81 (Cheli Beti) |
| | Scholarships (2) | PAK78- (Mosque Schools) |
| <u>Curriculum (9)</u> | Mentoring (2) | PAK90 (PED) |
| Interactive learning | Child-care programs | |
| Bilingual education | | |
| Provision of textbooks (3) | <u>Schools (16)</u> | |
| Gender-appropriate curriculum revision | Single-sex schools (2) | |
| Culturally appropriate curriculum revision (2) | Alternative or preparatory programs (6) | |
| Other materials | Provision of alternative school facilities | |
| | Increase number of schools (2) | |
| | Flexible schedule/calendar (5) | |

Note: The numbers in parentheses indicate multiple cases of a particular intervention in the documents studied.

Persistence. Sixty-nine interventions had persistence as their aim (Table 8). For 17 of these there is no information on their success. Seven had mixed outcomes, and four did not achieve their goal. Forty-two interventions, from 11 projects, are reported as having improved persistence. Community interventions were the most common. Most of these were economic incentives, although sensitization campaigns and community management (as part of a group of interventions) were also reported as successful. Persistence interventions focus more on teachers and less on schools than do access interventions. Local and female teachers were used most often, followed by incentives and training for female teachers in order to increase their numbers. Two common school-based interventions were the creation of alternative programs and making the school schedule and calendar flexible.

Table 8: Successful Persistence Interventions as Reported in the Documents

| Interventions | | Projects |
|--|--|------------------|
| <u>Teachers (13)</u> | <u>School (9)</u> | BAN79- (BRAC) |
| Formal pedagogical training (3) | Flexible schedule/calendar (3) | EGY92- (UNICEF) |
| Local female teachers | Provision of alternative facilities | GUA85-90 |
| Local teachers (2) | Alternative or preparatory programs (4) | GUA87-94 (AGES) |
| Female teachers (3) | Increased number of schools | GUA91 (BEST) |
| Classroom management training | | IND79-87 |
| Female trainers for teachers | <u>Community (14)</u> | MAL189 (BEEP) |
| Improved work conditions for female teachers | Media campaigns | MLW91-96 (GABLE) |
| Incentives for female teachers | Community sensitization program | MLW93- (ABEL II) |
| | Fee waivers | PAK90 (PED) |
| <u>Curriculum (6)</u> | Child-care programs | ZIM92 |
| Culturally appropriate curriculum revision | Scholarships (2) | |
| Bilingual education | Subsidies | |
| Interactive learning | Community management -administration (2) | |
| Restricted focused curriculum | Community management -teacher-related | |
| Gender-appropriate curriculum revision | All or most costs covered | |
| Provision of textbooks | Mentoring/tutoring | |
| | School supplies/uniforms (2) | |

Note: The numbers in parentheses indicate multiple cases of a particular intervention in the documents studied.

Achievement. Sixty-four interventions attempted to increase achievement (Table 9). For 23 of these, there is no information on outcome, four had mixed outcomes, and six were not successful. Thirty-one, from nine projects, attained their objective. Surprisingly, interventions involving teachers were not often tried to improve achievement. Curriculum revisions, new pedagogical methods, and the provision of textbooks were the common curricular interventions. In the category of schools, alternative programs and single-sex classes or schools were the two most common interventions to achieve this aim. Community management and mentoring, as well as economic programs, were also listed as successful. In the case of a program such as AGES in Guatemala, a scholarship program was implemented along with mentoring and tutoring and Nieves et al. felt that the scholarship motivated girls to do better.

Table 9: Successful Achievement Interventions as Reported in the Documents

| Interventions | | Projects |
|--|--|-----------------|
| <u>Teachers (6)</u> | <u>Schools (9)</u> | EGY92- (UNICEF) |
| Local teachers | Alternative or preparatory programs (3) | GUA87-94 (AGES) |
| Classroom management training | Increased number of schools | IND79-87 |
| Female teachers (2) | Flexible schedule/calendar | LIB8- (IEL) |
| Formal pedagogical training for teachers (2) | Single-sex schools/classes (3) | PAK90 (PED) |
| | Provision of alternative school facilities | TLD89 |
| <u>Curriculum (8)</u> | <u>Community (8)</u> | UK86 |
| Provision of textbooks (3) | Subsidies | US93 |
| Programmed learning | School supplies/uniforms (2) | ZIM92 |
| Culturally appropriate curriculum revision | Community management (3) | |
| Interactive learning | Mentoring/tutoring | |
| Gender-appropriate curriculum revision | Scholarships | |
| Group work and peer teaching | | |

Note: The numbers in parentheses indicate multiple cases of a particular intervention in the documents studied.

Successful outcomes. Viewing these aims separately is not particularly instructive, since, as noted above, few projects treat them separately. Most projects gave multiple objectives for each intervention and, in most projects, many interventions are implemented together—a “package.” Looking at the interventions reported as having met one or more of their stated aims, there are 17 projects or studies that claim success (Table 10).

What can be learned from these projects? The most common intervention in this group is alternative or preparatory educational programs such as the Bangladesh Rural Advancement Committee’s (BRAC) Nonformal Primary Education program; UNICEF community schools (EGY92-); the Indian Institute for Education’s action-research project (IND79-87); and the Mosque Schools Policy in Pakistan (PAK78-). These are programs that prepare girls to enter the formal system through participation in an alternative educational model and are integrated packages of interventions that do not allow for differentiation among interventions and outcomes. For example, BRAC’s three-year Nonformal Primary Education program prepares children, mostly girls, to enter primary school. The students meet for several hours a day in a local room, with a local teacher, and use a curriculum different from that of the formal system. Parents are involved in the school, and there are no tuition costs. UNICEF’s community school program in Egypt is slightly different, as it is administered in cooperation with the Ministry of Education. Communities without primary schools construct facilities and then operate the equivalent of a full primary school program with a local female teacher using a participative, multigrade teaching method.

Table 10: Interventions That Achieved Their Goals of Increasing Access, Persistence, or Achievement

| Subject of Source and Interventions | Access | | Persistence | | Achievement | |
|---|------------|-------------------|-------------|------------------------|-------------|------------------------|
| | Objective? | Increased Access? | Objective? | Increased Persistence? | Objective? | Increased Achievement? |
| BAN79- (BRAC) Alt. or prep. programs | ✓ | Yes | ✓ | Yes | | Mixed |
| EGY92- (UNICEF) Alt. or prep. programs | ✓ | Yes | ✓ | Yes | ✓ | Yes |
| GUA85-90 Bilingual education* | ✓ | Yes | ✓ | Yes | ✓ | No information |
| GUA87-94 (AGES) Community mentoring Scholarships* | | | ✓ | Yes | ✓ | Yes |
| There was also a sex education intervention as part of AGES with the goal of increasing persistence. Its results are not known. | | | | | | |
| GUA91 (BEST) Package 1: Community management Community mentoring | ✓ | Yes | ✓ | Mixed | ✓ | No information |
| Package 2: Scholarships Community management Community mentoring | ✓ | Yes | ✓ | Mixed | ✓ | No information |
| Package 3: Other materials | ✓ | Yes | ✓ | Mixed | ✓ | No information |
| NEU: Interactive learning* | ✓ | Yes | ✓ | Yes | | |
| IND79-87 Alt. or prep. programs | ✓ | Yes | ✓ | Yes | ✓ | Yes |

| Subject of Source and Interventions | Access | | Persistence | | Achievement | |
|--|------------|-------------------|-------------|------------------------|-------------|------------------------|
| | Objective? | Increased Access? | Objective? | Increased Persistence? | Objective? | Increased Achievement? |
| ZIM92 School supplies/uniforms Subsidies | | | ✓ | Yes | ✓ | Yes |

^aThe Primary Education Development Program in Pakistan was implemented in two provinces: Balochistan and the Northwest Frontier Province. The program in each province differed and so the interventions were coded separately and are labeled here with a B or NWFP.

Note: Interventions marked with an asterisk were reported in the literature as having statistically significant outcomes.

The limitations of the information derived from the literature review are such that the causes for success or failure of an intervention can not at this point be determined. For example, much of the literature reviewed does not contain information on processes of implementation. Thus, a “good” intervention could fail because of poor administration, lack of funds, etc. Rarely is this kind of information given in these documents. Despite this problem, we can guess at some possible reasons for success of the alternative and preparatory programs just mentioned. They are often small-scale. They often function outside of the educational system, being run by nongovernmental organizations. Lastly, their outcomes may be more easily controlled and measured, as all aspects of the program are controlled by those implementing it and therefore fewer confounds or alternative explanations for their results exist.

The BEST project, which also had successful outcomes, contained an interesting design to examine alternative packages. (Package 2 mirrored package 1, consisting of community management and community mentoring, but added scholarships. Package 3 provided “other materials.”) The objectives and outcomes of the project were expressed in measurable terms. All three of these packages were successful in increasing access, but had mixed results with persistence. Interactive learning (the methodology of the Nueva Escuela Unitaria (NEU) project) was also tested. It was reported to have succeeded in its dual aims of increasing access and persistence. While achievement was an aim of all of these interventions, outcomes were not reported. Interactive learning, therefore, looks particularly promising as an intervention addressing access and persistence, but, as Appendix E shows, we do not get information on the environment in which the interventions were deployed.

Unfortunately, while these “successful” projects tend to be more carefully reported than others that we reviewed, there are still not clear links drawn between the objectives of the project and the choice of interventions in many cases. Connections are also not clearly shown between interventions implemented and increased access, persistence, or achievement.

The fact that a number of projects, such as BEST and the Cheli Beti program in Nepal (NEP81), do report some outcomes as “mixed” (some positive and some negative results) is an encouraging sign in our search for lessons, as are the projects that report *not* meeting their aims (Table 11). Reporting some parts of a project successful and other parts unsuccessful gives a good indication of careful evaluation. The number of outcomes not known is disheartening. Our reporting has been focused on inputs and effort at the expense of outcomes and results. Some outcomes were not reported because it was too soon to measure the effects of the intervention.

Since many reports do not give dates, it is difficult for the reader to know when an intervention was implemented and when an outcome might reasonably be expected.

Table 11: Interventions That Did Not Achieve Their Goals or for Which Information Was Not Available

| Subject of Source and Interventions | Access | | Persistence | | Achievement | |
|---|------------|-------------------|-------------|------------------------|-------------|------------------------|
| | Objective? | Increased Access? | Objective? | Increased Persistence? | Objective? | Increased Achievement? |
| BF7- Labor-saving technologies | ✓ | No | | | | |
| ETH86 Reduce class size Formal pedagogical training Female teachers | | | ✓ | No | ✓ | No |
| GHA91-94 (PREP/EIP) Scholarships | ✓ | No info. | ✓ | No info. | | |
| GUA87-94 (AGES) Sex education | | | ✓ | No info. | | |
| GUA9- (NEU) Group work and peer teaching* | | | | | ✓ | Mixed |
| GUA91 (BEST) Bilingual education | ✓ | Mixed | ✓ | Mixed | ✓ | No information |
| IND9- Formal pedagogical training for teachers | ✓ | No information | ✓ | No information | ✓ | No information |
| LIB8- (IEL) Programmed materials* | | | | | ✓ | Mixed |
| MALI89 (BEEP) Formal pedagogical training Textbooks Classroom construction | ✓ | No info. | ✓ | No info. | ✓ | No info. |
| MLW91-96 (GABLE) Gender-appropriate curriculum revision | ✓ | No info. | ✓ | No info. | | |
| PAK79-85 (PEP) Formal pedagogical training | ✓ | No info. | ✓ | No info. | | No |
| PAK88-89 Female teachers* | | | | | ✓ | Mixed |
| US96 Single-sex classes* | | | | | ✓ | Mixed |

Note: Interventions marked with an asterisk were reported in the literature as having statistically significant outcomes.

Where the documents are most lacking, however, is in provision of information on the environment in which the intervention was introduced. Without such information, we can not make good judgments about the replicability of interventions in other settings. If cultural beliefs about girls and education are different, if the educational system functions differently, if the intervention succeeds in only rural areas and is tried in urban ones, a “good” intervention may fail. We may invest scarce resources without knowing whether we have invested wisely. BRAC (Table 10) and the USAID Primary Education Program’s Equity Improvement Program (PREP/EIP) in Ghana (Table 11) give considerable detail on the environment—the cultural

factors, for example, that shaped parents' and communities' attitudes. UNICEF Community Schools (EGY92-) and the Mosque Schools policy (Pakistan) provide information in some of these areas, and the remainder provide little or none. While it is true that this information can usually be obtained elsewhere, it would be helpful to have it in the document or to have other sources for this information referenced in the document to see how it has shaped the project's response. (For more information on these interventions and their source documents, see Appendix E.)

Unsuccessful outcomes. There were 13 projects with stated objectives that had one or more interventions not reported as successful (some of these projects also appear in Table 10). For most of these, outcomes were not known. In some cases, it was too soon to see results of interventions; in others, information on outcomes was not reported. Some interventions produced both positive and negative results ("mixed"), and a few were reported as not having met their goals. The national study in Ethiopia involving reduced class size, formal pedagogical training, and female teachers reported no correlation between these variables and improved persistence or achievement. The most frequently reported aims of these "unsuccessful" interventions were increasing persistence or achievement, rather than access.

Those interventions that had unsuccessful or mixed results, such as the study of female teachers and training in Ethiopia, NEU in Guatemala, labor-saving technologies in Burkina Faso, and teacher training in Pakistan, should not be discounted. Rather, comparisons should be made between these projects and those that claimed success with the same interventions. Information such as implementation, combination of interventions, and environment should be examined. For those interventions for which no evaluation information is given, it is worthwhile to watch for newer evaluation materials or to interview those involved with the project. (For more information on these interventions and their source documents, see Appendix F.)

Statistically significant outcomes. Although not all interventions can be designed in such a way that their outcomes can be tested for statistical significance, it is interesting to note the outcomes described in the literature as statistically significant. Some of these outcomes are "mixed" (positive and negative results), but the majority are positive. Most of these interventions occurred in large projects, and are thus worth further examination.

The interventions reported with positive and statistically significant results include (Table 12):

- ◆ bilingual education,
- ◆ interactive learning,
- ◆ scholarships,
- ◆ local teachers,
- ◆ a restricted and focused curriculum,
- ◆ female teachers,
- ◆ programmed learning, and
- ◆ single-sex schools.

Three of these interventions were studies as opposed to projects in the field. A disproportionate number of these interventions took place in Guatemala, but perhaps this simply signals the

Careful documentation and measurement that have accompanied USAID-funded activities in that country. Bilingual education and interactive learning were both said to increase access in Guatemala. Scholarships, interactive learning, local teachers, a restricted, focused curriculum, and female teachers all contributed to increased persistence in Guatemala and Malawi. Scholarships, programmed learning, single-sex schools, and group work and peer teaching increased achievement significantly in Guatemala, Liberia, Thailand, and the United States. These same interventions were reported as not successful in other circumstances, so it becomes important to examine the environment, including culture, policy, and educational system, size, and implementation of the above. Although the AGES project (scholarships) gives some details about environment, in most instances we do not have enough information about these interventions to know the circumstances under which they worked and other kinds of information that might assist a planner or designer.

Table 12: Projects or Studies Reporting Statistically Significant Outcomes

| Project or Study | Intervention | Objective | Results |
|------------------|--|---|--|
| GUA85-90 | •Bilingual education | •Access, persistence | •Increased access •Increased persistence |
| GUA87-94 (AGES) | •Scholarships | •Persistence, achievement | •Increased persistence •Increased achievement |
| GUA9- (NEU) | •Group work and peer teaching | •Achievement | •Mixed |
| GUA91 (BEST) | •Interactive learning | •Access, persistence | •Increased access •Increased persistence |
| LIB8- (IEL) | •Programmed learning •Programmed materials (some outcomes significant) | •Achievement •Achievement | •Increased achievement •Mixed |
| MLW93- (ABEL II) | •Local teachers •Restricted, focused curriculum •Female teachers | •Access, persistence, achievement •Access, persistence, achievement •Access, persistence, achievement | •Increased persistence •Increased persistence •Increased persistence |
| PAK88-89 | •Female teachers | •Achievement | •Mixed |
| TLD89 | •Single-sex schools | •Achievement | •Improved achievement |
| US93 | •Group work and peer teaching | •Achievement | •Improved achievement |
| US96 | •Single-sex classes | •Achievement | •Mixed |

The outcomes for the interventions that did not have stated objectives can be found in Appendix G.

Lessons and Recommendations

About the Strategies

Some lessons on strategies for improving girls' participation in education can be drawn from the literature, but for the most part they are based on less than empirical evidence and reflect "best guesses." These "guesses" are sketched below, but it is the role of the expert reader to weigh them in the light of his or her own experience, until more solid evidence is available. What constitutes such evidence? We make some suggestions, which, if accepted, will improve the quality of data considerably.

In looking at interventions described as successful, the most common are alternative programs (i.e., outside the formal school system) that prepare girls to enter the formal system. These are integrated packages that do not allow for evaluation of individual interventions within the package. As a result, we cannot draw conclusions about specific interventions. Some projects, which fall into this "alternative programs" category, such as BRAC in Bangladesh and PED in Balochistan, are well known and publicized. Others, such as the Community School program in Egypt, are less familiar, and programs such as the Mosque Schools program in Pakistan may be unknown to experts outside the region. As surmised earlier, it may be the scale of these efforts, nongovernmental management, and the control over all aspects of the "educational system" that account for the success of these activities. It would be useful to look in greater detail at why alternative programs seem to have succeeded.⁶

BEST's innovative approach in testing girls' education programs against NEU and PRONEBI and in creating competing packages of interventions provides a method for drawing conclusions with more confidence. The "competing packages" programs within BEST appear, however, to have produced mixed results. Although all achieved their aim of access, only NEU (interactive learning) had unmixed success in achieving its aim of increasing persistence, and information on achievement is not clearly reported for any of the packages, except in the case of interactive learning, where achievement was not stated as an objective.

Some studies and projects reported statistically significant outcomes. Although the results of some of these are "mixed," those with positive outcomes are worth investigation. The interventions that had positive and statistically significant results include bilingual education, interactive learning, scholarships, local teachers, a restricted and focused curriculum, female teachers, programmed learning, and single-sex schools. The literature did not provide sufficient information about the circumstances under which these interventions were successful, but further reading and discussion with those involved in the programs may be able to answer the questions of a planner or designer.

⁶ Stromquist and Murphy (1996) present some analysis of the environment and circumstances in Bangladesh and Balochistan that help to explain why these projects appear to have succeeded.

About the Literature

The literature did not permit us to draw many empirically based conclusions. Most interventions appear to be both “successful” and “unsuccessful” (or have no published results) in different projects and circumstances. We feel that policy makers, planners, designers, and researchers need much more information than they are now getting from the literature in order to make informed decisions about appropriate interventions for local settings. For example, could similar results have been achieved at lower costs or with fewer or different combinations of interventions? Are the results situation-specific, or can they be replicated elsewhere under different circumstances? In the documents reviewed for this literature review, little information was provided on pre-intervention data, on environment or on cost, and sometimes even on the aims and outcomes of interventions.

We conclude, therefore, that agencies and others reporting on outcomes must address the gaps in the documentation if the field of girls’ education is to build on lessons learned. We have wasted many opportunities to learn from our experiences. Better links must be made between project objectives, the actual interventions, and the outcomes in order to learn lessons about interventions. This, of course, must be done in the design, implementation, and evaluation stages of projects, and this information must then also be recorded in the literature if it is to be helpful to others concerned with girls’ education. If this is not done, we may continue to perpetrate unsuccessful or infeasible interventions at the expense of lower cost or more successful interventions.

Recommendations

1. Those involved in implementing and documenting girls’ education interventions should ensure that literature is made more accessible, and that all the reports in a series of project documents are archived. For this literature review, published academic literature was readily accessible, at least to a western reader with access to bibliographic search facilities. Institutional literature, however, is in disarray, and serious efforts should be made to keep an archive of the documents in a project sequence—design, midterm evaluation, final evaluation, and any other documents particular to an organization’s project cycle. Few lessons can be drawn when items are missing, or stages in the project cycle reporting sequence have been skipped.
2. Conventions for reporting on projects and on research need to be improved. We feel that the literature should report on the following, whenever possible:
 - ◆ Pre-intervention or baseline data
 - ◆ Barriers to be addressed by the intervention
 - ◆ Specific interventions implemented and the objectives of each
 - ◆ Environment of project (urban/rural; type of school system; cultural attitudes)
 - ◆ How the project was implemented
 - ◆ Whether implementation matched planned activities
 - ◆ Cost of project and whether nontraditional sources of funding could be obtained

- ◆ Level of involvement by community and other sectors
- ◆ Date and length of intervention and time elapsed before writing of report
- ◆ Measured outcomes
- ◆ Statistical significance of results
- ◆ Basis and evidence for conclusions
- ◆ Type and scope of sampling, if applicable
- ◆ Which of the possible confounds to the reported results were addressed when measuring outcomes.

Further attention should be paid to measuring and reporting separately the interventions in large projects, at least in terms of objectives. When packages of well-integrated interventions are part of the design, give the rationale. When possible, separate in terms of outcomes the interventions in these packages.

Consider preparing a handbook containing a checklist of items that should be included in documents whose agencies/authors are interested in sharing lessons. The handbook might also contain a guide on how to get such information. Some questions that should be included in the handbook are presented in Appendix G.

3. The literature review should be updated on a regular basis to allow for continuing analysis of lessons learned. The Girls' and Women's Education Activity, along with other USAID girls' education contractors in Washington, DC, should create a repository or standing collection of girls' education documents, particularly those that report on ongoing projects and activities.
4. Perhaps most important, certain interventions that seem successful should be analyzed more intensively, taking the "thought experiment" approach discussed earlier. Thinking of possible variations on the project/intervention—environmental, scope, and cost variations, for example—and asking "What would happen if these factors were changed" is a useful approach that helps to identify what might be integral to an intervention (and therefore, what makes it work) and what is open to adaptation to other circumstances.

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⁷ This list contains references cited in this discussion other than those included in the bibliography of the Literature Review (Appendix C).

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Appendix B: Literature Review Coding Form

Coder: _____

THE SOURCE

Author(s) _____

Date _____

Title _____

Journal/Book title (if an article or chapter) _____

Editors (if applicable) _____

Volume, Number (if applicable) _____

City _____

Publishers _____

Type of Source (Choose one)

- project design
- mid-term evaluation
- final evaluation
- technical report
- academic article
- interview
- survey
- other _____

Subject of Source (Choose one)

- Project
- Policy change
- Study/research

Country(ies) _____

Basis for Conclusions (Choose one)

- non-experimental
- true experiment
- quasi-experiment
- natural experiment

Evidence for Conclusions (Choose one)

Look at the primary design of the research. Verification interviews or follow-up surveys should not be counted. Mixed strategy implies a conscious decision to employ more than one of the following.

- Statistics
- Surveys
- Interviews with administrators
- Interviews with teachers
- Interviews with participants
- Mixed interviews
- Observation
- Mixed strategy

Sampling (Choose one, using NA if sampling was not used)

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> Mixed strategy | <input type="checkbox"/> Convenience |
| <input type="checkbox"/> Random - simple | <input type="checkbox"/> Snowball |
| <input type="checkbox"/> Random - stratified | <input type="checkbox"/> Quota |
| <input type="checkbox"/> Random - cluster | <input type="checkbox"/> Purposive |
| <input type="checkbox"/> Random - systematic | <input type="checkbox"/> NA |
| <input type="checkbox"/> Not enough information | |

Scope of sample (Choose one)

“One” implies one school or village. “Multiple non-national” encompasses everything else that was not a national sample.

- One
- Multiple non-national
- National sample
- International
- NA

Confounds Addressed (Please answer for all eight.)

There are 8 possible confounds. They are: History, Maturation, Mortality/attrition, Regression to the mean, Selection interactions, Testing, Instrumentation, Diffusion of treatment. See handout for explanation of the 8. They are not only for experiments but some are applicable for any kind of study or report.

| <i>Yes</i> | <i>No or not enough information</i> | |
|--------------------------|-------------------------------------|------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | History |
| <input type="checkbox"/> | <input type="checkbox"/> | Maturation |
| <input type="checkbox"/> | <input type="checkbox"/> | Mortality/attrition |
| <input type="checkbox"/> | <input type="checkbox"/> | Regression to the mean |
| <input type="checkbox"/> | <input type="checkbox"/> | Selection interactions |
| <input type="checkbox"/> | <input type="checkbox"/> | Testing |
| <input type="checkbox"/> | <input type="checkbox"/> | Instrumentation |
| <input type="checkbox"/> | <input type="checkbox"/> | Diffusion of treatment |

Pre-Intervention Data Supplied

Use "NA" if the source is not about a policy change or project. Ask yourself, "Was good information given about the situation before the project was implemented?" We are interested in understanding the specific situation. Generalities about girls' low enrollment in schools are not considered pre-intervention data.

- Yes
- No
- NA

Cost Reported

This question is specific to projects or policy implementation. Otherwise - NA.

- Yes
- No
- NA

Environment Addressed

Does the source address the educational system (amount of decentralization), the population density (rural/urban/low), the prevailing cultural attitudes and practices about girls, and government policies? Brief answers to one or several of these would be "very little." We need to understand the context clearly in several of these areas before "in some areas" can be marked.

- Not at all
- Very little
- In some areas
- In most areas

THE INTERVENTION

Date of Intervention

Note the date the study was conducted or the project was implemented. If not specifically stated, but the decade is obvious, note that (i.e., “the 1980s”).

- NA
- Not reported

Intervention Type (Choose *one* at *each* level)

Interventions have been broken down into three levels. First, choose the location or recipient of the intervention—teachers, schools, curriculum, community programs, or national. Second, choose from the bold headings that characterize the type of intervention. Third, choose the actual intervention itself from underneath the heading.

If a source or project has more than one intervention, it must be coded SEPARATELY. Therefore, if both female teachers and school latrines were tried, they must each have their *own* reporting form. Even if two different interventions are tried under the heading of teachers, they must each be coded separately. If one source lists more than one intervention, use the “Additional Intervention” forms to code the second, third, fourth, etc., intervention and attach the extra forms to the back of the main reporting form. You may not be able to separate the objectives and outcomes for each of the separate interventions listed in the same source and so the same information may be repeated on each additional intervention form.

| <input type="checkbox"/> Teachers | <input type="checkbox"/> Schools | <input type="checkbox"/> Curriculum | <input type="checkbox"/> Community Programs | <input type="checkbox"/> National |
|---|---|--|---|--|
| <p><input type="checkbox"/> Selection</p> <ul style="list-style-type: none"> <input type="checkbox"/> Female <input type="checkbox"/> Local <input type="checkbox"/> Local female <p><input type="checkbox"/> Training</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sensitization <input type="checkbox"/> Classroom management <input type="checkbox"/> Conferences <input type="checkbox"/> Formal pedagogical training <input type="checkbox"/> Female trainers <p><input type="checkbox"/> Rewards</p> <ul style="list-style-type: none"> <input type="checkbox"/> Enrollment increases <input type="checkbox"/> Achievement increases <p><input type="checkbox"/> Economic Incentives</p> <ul style="list-style-type: none"> <input type="checkbox"/> Higher pay for rural teachers <input type="checkbox"/> Transportation <input type="checkbox"/> Housing <p><input type="checkbox"/> Incentives</p> <ul style="list-style-type: none"> <input type="checkbox"/> For females <input type="checkbox"/> Improved work conditions | <p><input type="checkbox"/> Provision</p> <ul style="list-style-type: none"> <input type="checkbox"/> Increased number of schools <input type="checkbox"/> School mapping <input type="checkbox"/> Satellite school <input type="checkbox"/> Boarding schools <input type="checkbox"/> Single-sex schools <input type="checkbox"/> Reduce class size <input type="checkbox"/> Provision of alternative school facilities <input type="checkbox"/> Alternative or preparatory programs <input type="checkbox"/> Single-sex classes <p><input type="checkbox"/> Facilities</p> <ul style="list-style-type: none"> <input type="checkbox"/> Latrines <input type="checkbox"/> School meals <input type="checkbox"/> Classroom construction <input type="checkbox"/> Upgraded <p><input type="checkbox"/> Administration</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compulsory education policies <input type="checkbox"/> Early school-withdrawal policies <input type="checkbox"/> Reduced admission requirements <input type="checkbox"/> Quotas <input type="checkbox"/> Return after pregnancy <input type="checkbox"/> Flexible schedule or calendar | <p><input type="checkbox"/> Special programs</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sex education <input type="checkbox"/> Programmed learning <input type="checkbox"/> Interactive learning <input type="checkbox"/> Group work and peer teaching <input type="checkbox"/> Restricted, focused curriculum <input type="checkbox"/> Bilingual education <p><input type="checkbox"/> Revision</p> <ul style="list-style-type: none"> <input type="checkbox"/> Culturally appropriate <input type="checkbox"/> Gender appropriate <p><input type="checkbox"/> Material</p> <ul style="list-style-type: none"> <input type="checkbox"/> Textbooks (new) <input type="checkbox"/> Other materials <input type="checkbox"/> Programmed materials | <p><input type="checkbox"/> Media</p> <ul style="list-style-type: none"> <input type="checkbox"/> Campaigns <p><input type="checkbox"/> Sensitization</p> <ul style="list-style-type: none"> <input type="checkbox"/> Meetings <input type="checkbox"/> Programs <p><input type="checkbox"/> Economic Incentives</p> <ul style="list-style-type: none"> <input type="checkbox"/> Scholarships <input type="checkbox"/> Subsidies <input type="checkbox"/> School supplies or uniforms <input type="checkbox"/> Fee waivers <input type="checkbox"/> All or most costs covered <input type="checkbox"/> Micro-enterprise development <input type="checkbox"/> Child-care programs <input type="checkbox"/> Labor saving technologies <input type="checkbox"/> Rural electrification, water, infrastructure <p><input type="checkbox"/> Support</p> <ul style="list-style-type: none"> <input type="checkbox"/> Mentoring <p><input type="checkbox"/> Participation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Management <input type="checkbox"/> Teacher-related (selection, training, payment) <input type="checkbox"/> School-related (supplies, maintenance, organization) <input type="checkbox"/> Curriculum <input type="checkbox"/> Information and institutional linkages | <p><input type="checkbox"/> Policy/legal changes</p> <p><input type="checkbox"/> National budget reallocation</p> <p><input type="checkbox"/> Desegregated data reporting</p> |

Objectives (You may choose “yes” for as many of the possible objectives as applies)

1. Improve access

- Yes
- No
- Not reported

2. Improve persistence

- Yes
- No
- Not reported

3. Improve achievement

- Yes
- No
- Not reported

Objectives of project stated in potentially measurable terms?

This question is applicable for projects or policy changes only. If the source is not about a project or policy change, choose NA. The wording “potentially measurable” is used so that even if the source does not use statistics or numbers, its goals would be measurable if one wanted to. Therefore, “increasing the number of girls in school” and “increasing enrollment by 20%” are both potentially measurable, while “making parents happier with educated daughters” is not.

- Yes
- No
- NA

What barriers are to be addressed by the “intervention”?

Does the source state the assumptions that they operated under in conducting the project, study or policy change? Check as many of the following assumptions as are stated for why girls aren’t enrolled, persistent or achieving.

- Cultural unacceptability
- Attitudes about girls’ abilities
- High direct cost
- High opportunity cost
- Lack of local schools
- Lack of teaching materials/furniture
- Lack of teachers
- Lack of facilities
- Other _____
- None reported

Timeframe

This question is applicable for projects or policy changes. What was the length of time of the project or change process? For studies, etc., make sure to put NA.

Length of time _____

NA

Scope (Choose one)

One implies one school or village. "Multiple non-national" encompasses everything else that was not a national project (implemented everywhere or implemented in schools or communities chosen through a national sample.

- One
- Multiple non-national
- National
- International

Linked to other interventions?

This reporting form will list only one intervention. If, according to the source, more than one intervention was tried, this is where that should be indicated and that additional forms are attached to the back of this one.

- Yes
- No

Project Report outcome expressed in measured terms?

Do they give us some numbers or facts in terms of what they accomplished or is it simply a statement such as "girls' enrollment increased"?

- Yes. *Skip next question.*
- No. *Skip next question.*
- Document is a study.

Study outcome expressed in measured terms?

- Yes
- No
- NA

Project Report outcome statistically significant?

The sources will state if their results are statistically significant. They will possibly state that it was not, but in many cases "not reported" will be the answer

- Yes. *Skip next question.*
- No. *Skip next question.*
- Not reported. *Skip next question.*
- Document is a study.

Study outcomes statistically significant?

The sources will state if their results are statistically significant. They will possibly state that it was not, but in most cases “not reported” will be the answer. There may be a few studies in which the question of statistical significance will be irrelevant (ethnographic studies, etc.)

- Yes
- No
- Not reported
- NA

Outcomes (Check one answer for each of 1-5. “Mixed” means “yes” in some regions, schools, etc., and “no” in others.)

1. Improved Access

- Yes
- No
- Mixed
- Don't know

2. Improved Persistence

- Yes
- No
- Mixed
- Don't know

3. Improved Achievement

- Yes
- No
- Mixed
- Don't know

4. Positive Other Impacts

- Yes
- No
- Don't know

5. Negative Other Impacts

- Yes
- No
- Don't know

Impact on Boys Assessed?

- Yes
- No

Sources of Funding

This question is relevant to *projects or policy changes*. If the source is a study - NA. Who funded this intervention, project, or policy change? You may choose more than one. The private sector refers to business. Government is the project country's government. Multilateral and bilateral donors are government development agencies, (USAID, CIDA, and NORAD, etc.), the development banks (the World Bank, InterAmerican Development Bank, etc.), and the UN agencies. Non-governmental organizations include international organizations like CARE or World Education, as well as national and local community organizations. Some religious groups are not actually NGOs and so these need to be listed separately.

- Private sector
- Government
- Multilateral/bilateral donors
- NGOs
- Religious organizations (non-NGO)
- Foundations
- Communities
- Not reported
- NA

Level of community involvement

There are three possible levels of community involvement. Low means using the service. A middle level of involvement encompasses consulting, providing material inputs or delivering the service. High level of involvement is identifying the needs, identifying resources, designing the project, implementing the project (which is not carrying out orders from higher-ups to do so but is a conscious input on their part), monitoring and evaluation. If it was simply a study that wasn't designed and carried out by the community, choose NA.

- Low
- Middle
- High
- NA
- Not reported

Other stakeholders' participation (check as many as are involved in the project.)

Participation is what is key, not funding, being interviewed, or carrying out an intervention (as in the case of teachers being *given* a program to carry out).

1. Private sector participation

- Yes
- No
- Not reported
- NA

2. Government participation

- Yes
- No
- Not reported
- NA

3. Multilateral/bilateral donor participation

- Yes

Appendix C: Number of Interventions by Type as Reported in the Documents

| Teachers (29) | Schools (32) | Curriculum (24) | Community Programs (31) | National (1) |
|--|---|---|--|--------------------------|
| Selection - 13 Female - 7 Local - 3 Local female - 3 | Provision - 25 Increased number of schools - 4 School mapping - 1 Single-sex schools - 4 Reduced class size - 1 Provision of alternative school facilities - 3 Alternative or preparatory programs - 10 Single sex classes - 2 | Special programs - 9 Sex education - 1 Programmed learning - 1 Interactive learning - 2 Group work and peer teaching - 2 Restricted, focused curriculum - 1 Bilingual education - 2 | Media - 2 Campaigns - 2 | Policy/legal changes - 1 |
| Training - 11 Classroom management - 1 Formal pedagogical raining - 9 Female trainers - 1 | Facilities - 1 Classroom construction - 1 | Revision - 6 Culturally appropriate - 3 Gender-appropriate - 3 | Sensitization - 1 Programs - 1 | |
| Economic incentives - 3 Transportation - 2 Housing - 1 | Administration - 6 Flexible schedule or calendar - 6 | Material - 9 Textbooks - 7 Other materials - 1 Programmed materials - 1 | Economic incentives - 12 Scholarships - 4 Subsidies - 1 School supplies or uniforms - 2 Fee waivers - 1 All or most costs covered - 1 Child-care programs - 2 Labor saving technologies - 1 | |
| Incentives - 2 For females - 1 Improved work conditions - 1 | | | Support - 4 Mentoring - 4 | |
| | | | Participation - 12 Management - 10 Teacher-related - 1 School-related - 1 | |

PREVIOUS PAGE BLANK *ppp 40,41*

Appendix D: Packages of Interventions by Project

AFG90-

Alternative or preparatory programs

- ◆ Culturally appropriate curriculum revision
- ◆ Provision of alternative or preparatory programs
- ◆ Local female teachers
- ◆ Flexible schedule/calendar
- ◆ Single-sex schools
- ◆ Community management (admin.)
- ◆ Creation of textbooks

BAN79- (BRAC)

Alternative or preparatory programs

- ◆ Provision of alternative facilities
- ◆ All or most costs covered
- ◆ Formal pedagogical training for teachers
- ◆ Local female teachers
- ◆ Flexible schedule/calendar
- ◆ Community management (admin.)
- ◆ Community participation (teacher-related)

BF7-

Labor-saving technologies

EGY92- (UNICEF)

Alternative or preparatory programs

- ◆ Increase number of schools
- ◆ Community management
- ◆ Local teachers
- ◆ School supplies/uniform

ETH86

Formal pedagogical training for teachers

Female teachers

Reduced class size

GHA91-94 (PREP/EIP)

Scholarships

Transportation for teachers

Housing for teachers

GUA85-90

Bilingual education

GUA87-94 (AGES)

Scholarships

Community mentoring/tutoring

Sex education

GUA9- (NEU)

Group work and peer teaching

GUA91 (BEST)

Eduque a la Niña

Package 1:

Community management

Community mentoring

Package 2:

Scholarships

Community management

Community mentoring

Package 3:

Other materials

NEU

Interactive learning

DIGEBI

Bilingual education

IND79-87

Alternative or preparatory programs

- ◆ Culturally appropriate curriculum revision
- ◆ Creation of new textbooks
- ◆ Flexible schedule/calendar
- ◆ Classroom management training for teachers

IND9-

Formal pedagogical training for teachers

LIB8- (IEL)

Programmed materials

Programmed learning

MALI89 (BEEP)

Female teacher trainers

Creation of new textbooks

Incentives for female teachers

Formal pedagogical training for teachers

Flexible schedule/calendar

Classroom construction

Scholarships

Gender-appropriate curriculum revision

Improved work conditions for female teachers

Child-care programs

Media campaigns

Community sensitization programs

Alternative or preparatory programs

MLW91-96 (GABLE)

Media campaigns

Fee waivers

Gender appropriate curriculum revision

MLW93- (ABEL II)

Restricted focused curriculum

Female teachers

Local teachers

MLW94

Community management (admin.)

Community participation (school-related)

NEP81 (Cheli Beti)

Alternative or preparatory programs

- ◆ Formal pedagogical training
- ◆ Local female teachers
- ◆ Creation of new textbooks
- ◆ Culturally appropriate curriculum revision
- ◆ Flexible schedule/calendar

NEP85-90

Alternative or preparatory programs

◆ Formal pedagogical training

◆ Female teachers

◆ Community management

◆ Child-care programs

PAK78- (Mosque Schools)

Alternative or preparatory programs

◆ Increase no. of schools

◆ Flexible schedule/calendar

◆ Creation of textbooks

◆ Local teachers (imam)

PAK79-85 (PEP)

Formal pedagogical training for teachers

PAK88-89

Female teachers

PAK90 (PED)

Balochistan:

Alternative or preparatory programs

- Provision of alternative facilities

Community management

Creation of new textbooks

Single-sex schools

Formal pedagogical training for teachers

Female teachers

NWFP:

Female teachers

Creation of textbooks

Single-sex schools

Community management

Interactive learning

Formal pedagogical training for teachers

PAK93-98 (NWFP)

Policy/legal changes

Female teachers

Increase number of schools

PAK95- (SGPEP)

Alternative or preparatory programs
Increase number of schools
Transportation for teachers
Community management

TLD89

Single-sex schools

UK86

Single-sex classrooms
Gender-appropriate curriculum revision

US90

Mentoring

US93

Group work and peer teaching

US96

Single-sex classes

ZIM92

Subsidies
School supplies/uniforms

Appendix E: Table of Interventions That Met Their Goals of Achieving Increases in Access, Persistence, or Achievement

| Subject of source | Scope of intervention | Pre-Intervention data supplied | Intervention | Objectives | | | | Outcomes | | | | Cost reported? | Environment addressed? |
|--|-----------------------|--------------------------------|--|------------------|-----------------------|-----------------------|--------------------------------|-------------------|------------------------|------------------------|---|----------------|------------------------|
| | | | | Increase access? | Increase persistence? | Increase achievement? | Expressed in measurable terms? | Increased access? | Increased persistence? | Increased achievement? | Outcomes expressed in measurable terms? | | |
| BAN79-(BRAC) | Multiple ^a | Yes | Alt. or prep programs <ul style="list-style-type: none"> • Provision of alternative school facilities • Community management • Teacher-related community management • Local female teacher • All or most costs covered • Flexible schedule/calendar • Formal pedagogical training for teachers | Yes | Yes | Not reported | No | Yes | Yes | Mixed | Yes | Yes | In most areas |
| EGY92-(UNICEF) | Multiple | No | Alt. or prep programs <ul style="list-style-type: none"> • Local teachers • Increased number of schools • School supplies/uniforms • Community management | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | In some areas |
| GUA85-90 | Multiple | No | Bilingual education* | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | No |
| GUA87-94 (AGES) | Multiple | Yes | Community mentoring | Not reported | Yes | Yes | Yes | — | Yes | Yes | No | No | In some areas |
| | Multiple | Yes | Scholarships* | Not reported | Yes | Yes | Yes | — | Yes | Yes | Yes | No | In some areas |
| There was also a sex education intervention as part of AGES with the goal of increasing persistence. The results are unknown. | | | | | | | | | | | | | |
| GUA91 (BEST) | Multiple | No | Package 1: Community management | Yes | Yes | Yes | Yes | Yes | Mixed | No info. | Yes | No | No |
| | Multiple | No | Community mentoring | Yes | Yes | Yes | Yes | Yes | Mixed | No info. | Yes | No | No |
| | Multiple | No | Package 2: Scholarships | Yes | Yes | Yes | Yes | Yes | Mixed | No info. | Yes | No | No |
| | Multiple | No | Community management | Yes | Yes | Yes | Yes | Yes | Mixed | No info. | Yes | No | No |

| Subject of source | Scope of intervention | Pre-Intervention data supplied | Intervention | Objectives | | | | Outcomes | | | | Cost reported? | Environment addressed? |
|-------------------|-----------------------|----------------------------------|---|------------------|-----------------------|-----------------------|--------------------------------|-------------------|------------------------|------------------------|---|----------------|------------------------|
| | | | | Increase access? | Increase persistence? | Increase achievement? | Expressed in measurable terms? | Increased access? | Increased persistence? | Increased achievement? | Outcomes expressed in measurable terms? | | |
| IND79-87 | Multiple | No | Community mentoring | Yes | Yes | Yes | Yes | Yes | Mixed | No info. | Yes | No | No |
| | Multiple | No | Package 3: Other materials | Yes | Yes | Yes | Yes | Yes | Mixed | No info. | Yes | No | No |
| | Multiple | No | NEU: Interactive learning* | Yes | Yes | Not reported | Yes | Yes | Yes | — | Yes | No | No |
| | Multiple | No | Alt. or prep. programs <ul style="list-style-type: none"> • Classroom management training • Flexible schedule/calendar • Culturally appropriate curriculum revision • Provision of textbooks | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Very little |
| LIB8-(IEL) | Multiple | No | Programmed learning* | Not reported | Not reported | Yes | No | — | — | Yes | Yes | Yes | Very little |
| MALI89 (BEEP) | Multiple | No | Alt. or prep. programs | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| | Multiple | No | Media campaigns | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| | Multiple | No | Gender-appropriate curriculum revision | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| | Multiple | No | Scholarships | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| | Multiple | No | Child-care programs | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| | Multiple | No | Flexible schedule/calendar | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| | Multiple | No | Female teacher trainers | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| | Multiple | No | Improved work conditions for female teachers | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| Multiple | No | Community sensitization programs | Incentives for female teachers | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |
| | | | | Yes | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Very little |

There are three other interventions as part of the BEEP package that were not reported as having successful outcomes. These were textbooks, formal pedagogical training, and classroom construction. The results for these interventions were not known.

| Subject of source | Scope of intervention | Pre-Intervention data supplied | Intervention | Objectives | | | | Outcomes | | | | Cost reported? | Environment addressed? | |
|--|-----------------------|--------------------------------|--|------------------|-----------------------|-----------------------|--------------------------------|-------------------|------------------------|------------------------|---|----------------|------------------------|---------------|
| | | | | Increase access? | Increase persistence? | Increase achievement? | Expressed in measurable terms? | Increased access? | Increased persistence? | Increased achievement? | Outcomes expressed in measurable terms? | | | |
| MLW91-6 (GABLE) | National | Yes | Fee waivers | Yes | Yes | Not reported | Yes | Yes | Yes | Yes | — | Yes | Yes | In some areas |
| There were two other interventions that formed part of GABLE. Media campaigns were in the design stage at the time that this report was written. The outcomes of gender-appropriate curriculum revision were not expressed in measurable terms or known. | | | | | | | | | | | | | | |
| MLW93- (ABEL II) | Multiple | No | Local teachers* | Yes | Yes | Yes | No | No | Yes | No | Yes | Yes | Yes | No |
| | Multiple | No | Restricted, focused curriculum* | Yes | Yes | Yes | No | No | Yes | No | Yes | Yes | Yes | No |
| | Multiple | No | Female teachers* | Yes | Yes | Yes | Yes | No | Yes | No | Yes | Yes | Yes | No |
| There was an additional intervention in ABEL II - school mapping. However, the coder did not answer any questions about this intervention. | | | | | | | | | | | | | | |
| NEP81 (Cheli Beti) | Multiple non-national | Yes | Alt. or prep. programs <ul style="list-style-type: none"> Provision of textbooks Culturally appropriate curriculum revision Formal pedagogical training Local female teachers Flexible schedule/calendar | Yes | Not reported | Not reported | No | Yes | No info. | No info. | Yes | No | In most areas | |
| PAK78- (Mosque Schools) | National | No | Alt. or prep. programs <ul style="list-style-type: none"> Local teachers Flexible schedule/calendar Increased number of schools Provision of textbooks | Yes | Not reported | Not reported | Yes | Yes | — | — | Yes | No | In some areas | |
| PAK90 (PED) | Multiple | Yes | Community management (Balochistan) | Yes | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Yes | In some areas | |
| | Multiple | Yes | Single-sex schools (Balochistan) | Yes | Yes | Yes | No | Yes | No info. | Yes | Yes | Yes | In some areas | |
| | Multiple | Yes | Single-sex schools (NWFP) | Yes | Yes | Yes | No | Yes | No info. | — | Yes | Yes | In some areas | |
| | Multiple | Yes | Alt. or prep. programs (Balochistan) <ul style="list-style-type: none"> Provision of alternative school facilities | Yes | Yes | Yes | No | No info. | No info. | Yes | No | Yes | In some areas | |
| | Multiple | Yes | Textbooks (Balochistan) | Yes | Yes | Yes | Yes | No info. | No info. | Yes | Yes | Yes | In some areas | |

| Subject of source | Scope of intervention | Pre-Intervention data supplied | Intervention | Objectives | | | | Outcomes | | | | Cost reported? | Environment addressed? |
|-------------------|-----------------------|--------------------------------|--|------------------|-----------------------|-----------------------|--------------------------------|-------------------|------------------------|------------------------|---|----------------|------------------------|
| | | | | Increase access? | Increase persistence? | Increase achievement? | Expressed in measurable terms? | Increased access? | Increased persistence? | Increased achievement? | Outcomes expressed in measurable terms? | | |
| | Multiple | Yes | Female teachers (Balochistan) | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Yes | Yes | In some areas |
| | Multiple | Yes | Formal ped. Training (Balochistan) | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Yes | Yes | In some areas |
| | Multiple | Yes | Interactive learning (NWFP) | Yes | Yes | Yes | Yes | No info. | No info. | Yes | Yes | Yes | In some areas |
| | Multiple | Yes | Textbooks (NWFP) | Yes | Yes | Yes | Yes | No info. | No info. | Yes | Yes | Yes | In some areas |
| | Multiple | Yes | Female teachers (NWFP) | Yes | Yes | Yes | No | No info. | Yes | Yes | Yes | Yes | In some areas |
| | Multiple | Yes | Formal ped. Training (NWFP) | Yes | Yes | Yes | Yes | No info. | Yes | Yes | Yes | Yes | In some areas |
| | Multiple | Yes | Community management (NWFP) | Yes | Yes | Yes | Yes | No info. | No info. | Yes | No | Yes | In some areas |
| TLD89 | National | NA - study | Single-sex schools* | Not reported | Not reported | Yes | NA - study | --- | --- | Yes | Yes | NA - study | No |
| UK86 | One | No | Gender-appropriate curriculum revision | No | No | Yes | Yes | --- | --- | Yes | Yes | No | Very little |
| | One | No | Single-sex classes | No | No | Yes | Yes | --- | --- | Yes | Yes | No | Very little |
| US93 | One | NA - study | Group work and peer teaching* | No | No | Yes | NA - study | ----- | ----- | Yes | Yes | NA - study | No |
| ZIM92 | Multiple | No | School supplies/ uniforms | No | Yes | Yes | Yes | ----- | Yes | Yes | Yes | Yes | Very little |
| | Multiple | No | Subsidies | No | Yes | Yes | Yes | ----- | Yes | Yes | Yes | Yes | Very little |

*"Multiple" refers to interventions that were implemented in more than one place, but *not* nationally.

Note: Interventions marked with an asterisk were reported in the literature as having statistically significant outcomes. A blank line in an outcome column indicates that no result is reported because that item was not an objective of the project.

Appendix F: Interventions That Did Not Meet Their Goals or for Which Information Was Not Available

| Subject of source | Scope of intervention | Pre-intervention data supplied | Intervention | Objectives | | | | Outcomes | | | | Cost reported? | Environment addressed? |
|---------------------|-----------------------|--------------------------------|--|------------------|-----------------------|-----------------------|--------------------------------|-------------------|------------------------|------------------------|--------------------------------|----------------|------------------------|
| | | | | Increase access? | Increase persistence? | Increase achievement? | Expressed in measurable terms? | Increased access? | Increased persistence? | Increased achievement? | Expressed in measurable terms? | | |
| BF7- | Multiple | No | Labor-saving technologies | Yes | Not reported | Not reported | No | No | — | — | No | No | Very little |
| ETH86 | National | NA - study | Reduced class size | Not reported | Yes | Yes | NA - study | — | No | No | Yes | NA - study | Very little |
| | | | Formal pedagogical training | Not reported | Yes | Yes | NA - study | — | No | No | Yes | NA - study | Very little |
| | | | Female teachers | Not reported | Yes | Yes | NA - study | — | No | No | Yes | NA - study | Very little |
| GHA91-94 (PREP/EIP) | National | Yes | Scholarships | Yes | Yes | Not reported | Yes | No info. | No info. | — | No | No | In most areas |
| GUA87-94 (AGES) | Multiple | Yes | Sex education | Not reported | Yes | Not reported | Yes | No info. | No info. | No info. | Yes | No | In some areas |
| GUA9-(NEU) | Multiple* | No | Group work and peer teaching* | Not reported | Not reported | Yes | Yes | — | — | Mixed | No | No | No |
| GUA91 (BEST) | Multiple | No | Bilingual education | Yes | Yes | Yes | Yes | Mixed | Mixed | No info. | Yes | No | No |
| IND9- | Multiple | Yes | Formal ped. training for teachers | Yes | Yes | Yes | Some | No info. | No info. | No info. | No | No | Very little |
| LIB8-(IEL) | Multiple | No | Programmed materials* ^b | Not reported | Not reported | Yes | No | — | — | Mixed | Yes | Yes | Very little |
| MALI89 (BEEP) | Multiple | No | Formal ped. training | Yes | Yes | Yes | Yes | No info. | No info. | No info. | Yes | Yes | Very little |
| | | | Textbooks | Yes | Yes | Yes | Yes | No info. | No info. | No info. | No | | |
| | | | Classroom construction | Yes | Yes | Yes | Yes | No info. | No info. | No info. | Yes | | |
| MLW91-6 (GABLE) | National | Yes | Gender-appropriate curriculum revision | Yes | Yes | Not reported | Yes | No info. | No info. | No info. | No | Yes | In some areas |

| Subject of source | Scope of intervention | Pre-intervention data supplied | Intervention | Objectives | | | | Outcomes | | | | Cost reported? | Environment addressed? |
|-------------------|-----------------------|--------------------------------|----------------------|------------------|-----------------------|-----------------------|--------------------------------|-------------------|------------------------|------------------------|--------------------------------|----------------|------------------------|
| | | | | Increase access? | Increase persistence? | Increase achievement? | Expressed in measurable terms? | Increased access? | Increased persistence? | Increased achievement? | Expressed in measurable terms? | | |
| PAK79-85 (PEP) | Multiple | Yes | Formal ped. training | Yes | Yes | | | No info. | No info. | No | Yes | No | No |
| PAK88-89 | Multiple | NA - study | Female teachers* | Not reported | Not reported | Yes | NA - study | — | — | Mixed | Yes | NA - study | Very little |
| US96 | Multiple | NA - study | Single-sex classes* | No | No | Yes | NA - study | — | — | Mixed | Yes | NA - study | Very little |

^a“Multiple” refers to interventions that were implemented in more than one place, but *not* nationally.

^b“Some” of the outcomes for IEL programmed materials were reported as significant.

Note: Interventions marked with an asterisk were reported in the literature as having statistically significant outcomes. A blank line in an outcome column indicates that no result is reported because that item was not an objective of the project.

Appendix G: Projects with Outcomes But No Stated Objectives

| Subject of source | Scope of intervention | Pre-intervention data supplied | Intervention | Objectives | | | | Outcomes | | | | Cost reported? | Environment addressed? |
|---------------------|-----------------------|--------------------------------|-----------------------------|------------------|-----------------------|-----------------------|--------------------------------|-------------------|------------------------|------------------------|--------------------------------|----------------|------------------------|
| | | | | Increase access? | Increase persistence? | Increase achievement? | Expressed in measurable terms? | Increased access? | Increased persistence? | Increased achievement? | Expressed in measurable terms? | | |
| GHA91-4 (PREP /EIP) | National | Yes | Transportation for teachers | Not reported | Not reported | Not reported | Yes | No info. | No info. | No info. | No | No | In most areas |
| | | | Housing for teachers | Not reported | Not reported | Not reported | Yes | No info. | No info. | No info. | No | | |
| US90 | One | No | Community mentoring | Not reported | Not reported | Not reported | No | No info. | No info. | Yes | No | No | Very little |

Appendix H: Questions for Analyzing a Strategy for Improving Girls' Participation in Education

This checklist contains a set of questions that you should ask when considering whether a strategy will succeed in your country and in your circumstances. The questions will not tell you whether a strategy “succeeds” or not—they will help you get enough information to decide whether it is worth looking at the strategy more closely in the field or creating a pilot to test it in your own situation.

Where will you get this information? Once you have identified a small number of possible interventions, you can:

- Write or talk to people who are knowledgeable about the particular *project*, for example, people who worked on the project or who evaluated it. You can find their names through the institutions that funded the project and through reports about the project. Often you can also find useful names through the informal networks that educators and educational planners, policy makers, and administrators tend to create through contacts at conferences, workshops, training courses, etc.
- Write or talk to people who are knowledgeable about the particular *intervention*, for example, academics who have studied an intervention in many countries, such as scholarships or single-sex schools. You are likely to find their names and the institutions (universities, donor agencies, and less often, governments) with which they are affiliated in the academic literature.
- Visit certain projects and see the intervention in operation.

However you get the information, these are the questions you need for analyzing project-based interventions.

1. What exactly is the intervention? That is, if you had to go to a community tomorrow and implement the intervention, what would you be doing? Creating an alternative school? Providing subsidies for attendance? Changing the school calendar?
2. Who, specifically, is the intervention intended to reach? Teachers? Girls aged 6-11? Parents who don't send their daughters to school?
3. What exactly is the intervention intended to do? Improve access by building schools closer to home? Improve persistence by providing day-care facilities for younger siblings? What barriers is it intending to address? For example:
 - a) cultural unacceptability of girls' education
 - b) high direct costs
 - c) high opportunity costs
 - d) lack of local schools
 - e) lack of teaching materials or furniture
 - f) lack of teachers

- g) lack of facilities
- h) other problems

4. What is the chain of rationalizations for using this strategy for this purpose? What were the assumptions? (For example, that girls are responsible for younger siblings, that they are staying out of school for this reason, and that parents will find it acceptable that the younger siblings be placed in day care rather than remain with their sisters.) What evidence is there that the rationalizations were well founded?
5. What was the situation prior to the intervention? For example, if the intervention is intended to improve access, how many girls were in school before the intervention was implemented?
6. What is the situation after the intervention? For example, if the intervention is intended to improve access, how many girls were in school after the intervention was implemented?
7. What else might cause the intervention to have the effect that it did? For example,
 - a) Another intervention was being carried out at the same time, and it is not clear which one, or whether perhaps both, influenced the outcome.
 - b) Perhaps new people were resettled in the area, or a new language policy permitted local language instruction. Either of these could raise the number of students, regardless of the intervention.
 - c) As time passed, this would have happened anyway (for example, suppose the intervention is designed to improve girls' nutrition, and therefore, their learning ability. Improvement is measured by weight before the strategy is implemented and five years later. As you can imagine, most growing girls would put on weight over five years, regardless of the intervention.)
8. What was the environment into which the intervention was introduced? For example, is it a rural or urban setting? Is there one ethnic group, or more? Is there a tradition of female education? Are there strong religious or cultural controls on girls' activities? Do girls have a heavy domestic workload? Find out as much as you can about the situation, because it may be that your own situation is so different that you need to re-think whether this intervention is appropriate, or if it is, to what extent it must be adapted.
9. What are the *preconditions* of the intervention's success? For example, does it require
 - a) a settled population?
 - b) a decentralized education system?
 - c) an urban population?
 - d) acceptance of mixed-sex schools?
 - e) cooperation of teachers' unions?
 - f) cooperation of other government ministries?
 - g) acceptance of female teachers?
 - h) expectation that local people can pay or contribute materials?

These are only some examples of preconditions. It is important to find out what is necessary for the intervention to work, because you may not be able to replicate those conditions. One way to get at preconditions when questioning people about a particular intervention is to ask “What would have made it not work? Would it work if this happened? Would it work if that happened?”

10. Are other interventions used along with this one? In other words, is it a package of interventions? Is it possible to look at their outcomes separately? Must they all be used in order to achieve success, or are some of them less crucial than others?
11. If the intervention is project-based, how long did the project last? How long before results are seen?
12. How large is the scope of the intervention (national, regional, local, one place)?
13. Has this particular form of the intervention been replicated somewhere else since it was implemented here? With what result? Has the intervention been used successfully anywhere else at all? Were the conditions the same? If not, what were they?
14. Does the project have an impact on boys’ access, persistence, or achievement?
15. What groups funded the intervention? For example,
 - a) multilateral/bilateral donors
 - b) government
 - c) NGOs
 - d) religious organizations
 - e) private sector
 - f) local people/parents/community
 - g) others
16. How else are groups or people involved (for example, collaborating, helping to design the intervention, managing, evaluating, providing services)?
 - a) Are ministries other than education ministries involved? How?
 - b) Are multilateral/bilateral donors involved? How?
 - c) Are NGOs involved? How?
 - d) Is the community involved? How? Is this kind of involvement essential to the success of the intervention? How is community involvement created?
 - e) The media?
 - f) Teachers’ organizations? How?
 - g) Other associations? How?
17. What are the costs of the intervention? (It is likely that no matter how you define “costs,” you will not get satisfactory information. Nevertheless, it is important to get whatever information you can.)