Final report: Mid-Term Review

Package for Improving Educational Quality (PIEQ) Project

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Report by School-to-School International

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Executive summary

The Project Package for Improving Educational Quality (PIEQ)[1] is a 5-year initiative (2009–2014) that aims to increase student learning, especially in reading and math, by improving the quality of teaching and school environments in the Democratic Republic of Congo (DRC). Funded by the U.S. Agency for International Development (USAID), PIEQ is led by Education Development Center (EDC), with partner RTI International - serving as a partner to design and implement impact assessments of the program - and Catholic Relief Services, through its local affiliate, Caritas – serving as a partner to implement a community mobilization component. PIEQ provides support to 3,000 schools, 30,000 teachers, 1.5 million students, and parent organizations in the Bandundu, Equateur, and Orientale provinces.

In June, 2012, a Mid-Term Review was organized by EDC to take stock of project accomplishments and challenges and, importantly, to determine whether the original project design was still appropriate for meeting the project's goals. The study was principally qualitative, in which over 400 project staff, partners and beneficiaries provided information on their experiences and perspectives concerning PIEQ.

Findings

Project staff, partners, and beneficiaries overwhelmingly expressed their satisfaction with PIEQ, with over three-fourths saying that PIEQ "is on the right path." They noted numerous strengths, including the high volume of project delivery of inputs such as the production of IRI programs and community mobilization modules and the training of over 29,677 teachers in a 2-week French institute; the project's adaptability in spite of significant logistical and financial difficulties; and the strong partnership PIEQ has established with the Ministry of Education (MOE). The project also received praise for the responsiveness of its programs to the needs of its schools, especially community training and school kits, and its renewal of the MOE's cluster- and school-based training structures.

The MTR also identified several difficulties experienced by the project. Of particular concern was the number of teachers and students being served by the project – numbers significantly greater than the ones proposed and budgeted. These increases of 43% in teacher numbers (from 21,000 to 30,000) and 67% in student numbers (from 900,000 to 1.5 million), without a concomitant budget adjustment, raises serious concerns about the extent to which project resources as currently allocated will be able to achieve the goals of the project. Also of concern was the question of alignment between the project's goal – to increase access to quality education for DRC children – and the project's strategies.

Over the first two years of implementation, in spite of substantial contributions to the education system, the project was experiencing several difficulties, including significantly higher costs than originally budgeted; logistical difficulties such as procurement of equipment, equipment failure (especially radios), and transportation issues; gaps in capacity of some local actors; and insufficiencies in project capacity to

[1] In French, Projet d'Amélioration de la Qualité de l'Education (PAQUED).

gather and use Monitoring and Evaluation (M&E) data in real time. Also since the project was launched, USAID/Washington had released its Global Education Strategy (February 2011), including its requirement to increase the number of improved readers in each country with USAID-funded education programs. As a result of these developments, PIEQ management began considering the need to readjust its strategy.

This review also revealed that:

- Project managers lack real-time information on the progress and impact of their activities due to insufficient resourcing of the PIEQ's M&E component, weak verification systems, and the absence of a targeted input-outcome evaluation design.
- Small grants are not meeting the needs of the schools, and are not improving the school environment, mainly because the grants are too small.
- The in-service teacher training approach, especially the institutes and cluster-based trainings, while popular, may be out of sync with current Ministry thinking.
- IRI, while popular, has been difficult to implement in the DRC context and might not be an appropriate tool for improving teaching and learning in the context of the Ministry's current goal to expand low-cost, scalable in-service teacher training modes to all schools in the DRC.
- PIEQ could improve its collaboration with its partners both in and outside of the Ministry to share documents, information, and lessons learned as well as to develop a scalable in-service teacher training model.

Recommendations

The MTR provides a list of 21 recommendations organized on the basis of priority and timing. The highest priority recommendations are as follows:

1. In order to align with USAID's Global Education Strategy and lessons learned from the implementation experience to date, revise the PIEQ goal to specify increasing the number of improved readers, with strategies that target that goal while keeping in mind logistics and resource realities of the DRC. Align all of PIEQ's major components – teacher training, IRI, community mobilization and M&E - to the revised goal. A renewed focus on USAID's Global Strategy may necessitate a reduction in other activities and targets that do not directly contribute to achieving the revised goal, including community mobilization activities, and the number of schools receiving small grants.

2. Develop a targeted input-outcome evaluation design that links key project inputs, outcomes, and measurement strategies in line the realigned PIEQ goal discussed in Recommendation 1. Ensure that this design takes into account lessons learned in the first three years of PIEQ concerning scope and resources, logistics difficulties, and costs, and adjust PIEQ's PMEP indicators to this targeted input-outcome evaluation design. If possible, combine or reduce the number of indicators.

3. Increase resources and staffing for PIEQ's M&E field operations.

4. Adopt a “difference in differences design” to provide USAID/Washington with numbers of improved readers.
5. Collaborate with the MOE and IPs to identify an approach to in-service teacher education that is in line with the Ministry’s agenda of effective, scalable, low-cost teacher training. Include a "2-track system" in which innovations would be rolled out in a subset of schools in Year 4 while maintaining a basic package of support in all 3,000 PIEQ schools. Explore possibilities to combine school-based and cluster-based training, where appropriate.

Additional recommendations are also made. Annexes include the Terms of Reference for this review, a summary of people consulted, and the data collection tools used for the field research.

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Finally, and perhaps most importantly, I would like to thank all the respondents in this review, including, teachers, parents, students, the PIEQ staff who were so courteous during my visits and those of the field researchers. Without their generous help and careful thoughts, this review would not have been possible.

Any helpful light that this report sheds on the status and prospects of PIEQ can be attributed to these people, and any misunderstandings or misstatements are solely those of the author of this report.

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Acronyms

CAT	Cellule d'Appui Technique
CGES	Comité de Gestion Scolaire
COP	Chief of Party
COPA	Comité des parents
CP	Conseiller Pedagogique (pedagogical advisor)
CTB	Cooperation Technique Belge
DIPROMAD	Direction des Programmes Scolaires et Matériel Didactique
EDC	Education Development Center
EGMA	Early Grade Math Assessment
EGRA	Early Grade Reading Assessment
GDRC	Government of the Democratic Republic of Congo
IFCEPS	Institut de Formation de Cadres de l'Enseignement Primaire et Secondaire
IPAF	Inspecteur Principal Adjoint Chargé de la Formation
IPP	Inspecteur Principal Provincial
IRI	Interactive Radio Instruction
LOP	Life of Project
M&E	Monitoring and Evaluation
MEPSP	Ministère de l'Enseignement Primaire, Secondaire et Professionnel
MT	Master Trainer
NGO	Non-Governmental Organization
PAGE	Programme pour une Approche Globale de l'Education
PAP	Plan d'Actions Prioritaires
PAQUED	Projet d'Amélioration de la Qualité de l'éducation (PIEQ)
PEO	Provincial Education Officer
PIRS	Performance Indicator Reference Sheets
PIEQ	Package for Improving Educational Quality (PAQUED)
RAN10	Video screen used by PIEQ for teacher training
SIEEQ	Improving Basic Education/Stratégies Intégrées pour une Education Equitable et de Qualité (SIEEQ)
SIP	School Improvement Plan
STS	School-to-School International
USAID	United States Agency for International Development

Introduction

In June, 2012, a Mid-Term Review was organized by EDC to take stock of the accomplishments and challenges of the Package for Improving Educational Quality (PIEQ) Project and, importantly, to assess whether the original project design was still appropriate for meeting the project's goals.[2] The concern about project design was a result of numerous challenges faced and adaptations made by the project since it began, including logistical difficulties, technical problems with some inputs (especially radios), and critically, a significant and unbudgeted expansion in the number of teachers and students targeted. Additionally, since PIEQ began, USAID released its new Global Education Strategy (February 2011) with the goals of improving early grade reading, workforce development, and access to education in conflict environments. Like most missions around the world, USAID/DRC is seeking ways to align its programs with one or more of these policy goals.

According to the original proposal, the intended outcome (goal) of PIEQ was to enable DRC children to have access to a safe, high-quality learning environment and that they leave school possessing the literacy and numeracy skills that will allow them to contribute to the rebuilding of their country. The proposal states three objectives (underlined below)[3]; PIEQ staff and field researchers added descriptions of how these objectives were to be met:

- Improve teachers' delivery of subject matter content and pedagogy, principally through teacher training in clusters and at the school level and the use of IRI and video;
- Improve students' mastery of subject matter by providing students with instructional support (materials and methods) to improve their learning through the training of teachers and the provision of materials such as school kits, and
- Improve the school learning environment by enabling communities to create productive and safe learning environments at school by training parents in school management, educating parents and community members through training and radio programs, and providing small grants to improve school environments.

These project components are discussed in more detail in the Findings section of this report.

This report presents the findings of the MTR, first by describing the methodology of the research, then by presenting the strengths and difficulties surrounding the project design, specific project components, the M&E system and partnerships. The findings are followed by a discussion of the salient points to arise from the research. The report concludes with recommendations.

It is hoped that the results of this MTR will serve not only to help project managers and partners better understand how to continue managing PIEQ in the most effective way possible, but also to reflect on the changes that have occurred since the beginning

[2] See Terms of Reference, Annex A.
[3] PIEQ Technical Proposal, p. 2.

of the project and, in light of those changes, consider alternative ways of meeting the project's objectives between now and the end of the project.

Methodology

Study design and questions

As noted above, this Mid-Term Review was designed to be principally qualitative so that USAID, Ministry officials, project beneficiaries, and Implementing Partners (IPs) could share their experiences and perspectives about project progress and issues. The goal was to produce recommendations that could not only improve project implementation but also inform strategic planning for the remainder of the project. Study questions were initially proposed by the PIEQ field staff and the EDC Washington office and presented in the Terms of Reference for this review (Annex A). These questions focused on five areas:

- Project design
- Outcomes
- M&E
- Partnerships, and
- Potential for impact and sustainability.

Dr. Aben Ngay, the PIEQ Chief of Party, summarized the questions proposed by EDC in the following two questions:

- Are we doing the right thing?
- Are we doing the right thing well?

In June 2012, EDC hired Dr. Mark Lynd, President of School-to-School International, to serve as Team Leader for the Mid-Term Review (MTR). That month, Dr. Lynd traveled to the DRC to initiate the MTR. During his two-week visit, he worked with PIEQ project staff, Ministry Inspectors, university professors, USAID-DRC personnel, and consultants to discuss the objectives of the MTR, to conduct interviews in Kinshasa, to design the MTR, to develop the field data collection instruments, and to prepare the field researchers for data collection.

The field research team consisted of Ministry education inspectors, university professors, consultants, and a member of the USAID Monitoring and Evaluation team (see Acknowledgements for researchers' names and titles). The Team Leader led the research team through several participatory activities in which they, in conjunction with PIEQ staff, generated research questions, edited the data collection instruments and field guide, and advised on interview formats, scheduling, and criteria for school selection. With Dr. Ngay, Dr. Hamilton, and the PIEQ support staff, the Team Leader assembled the instruments and the field guide, prepared the research team, scheduled the field visits, and prepared all research materials.

Nine data collection instruments were developed for this review as follows:

Table 1: List of research instruments for data collection in the field[4]

Instrument title	Respondents
1: Interview	PIEQ Provincial Coordinator, M&E Coordinator
2: Interview	PROVED, IPP, IPPAF
3: Interview	Inspector/PIEQ trainer, regional coordinator
4: Interview	PIEQ/Caritas project staff member
5: Interview	School Director
6: Observation IRI	Teachers in PIEQ schools
7: Group interview	Teachers in PIEQ schools
8: Focus group	Students
9: Interview	Members of school COPAs, CGEs

The instruments included both quantitative questions in which respondents were asked to select their choice – e.g., yes/no, completely, mostly, somewhat, and not at all – and qualitative, open-ended questions. Respondents in the field and in Kinshasa were asked about their experience with the project and its various components, their views of its effectiveness, and their recommendations for improving the project. When appropriate, interviewees were also asked for their perspectives on the design of the project, its sustainability, its impact, IRI, and M&E issues.

Sample and data collection

The field researchers collected data from June 13-25, 2012 in PIEQ's three target provinces. In each province, they interviewed the Project's Provincial Coordinator and M&E officer, the local education authorities, and a member of the Caritas team. Researchers also visited six PIEQ schools in each province, which were purposively selected to ensure the representation of more urban and more rural schools as well different types of school by ownership. Ultimately, 18 schools were visited, six in each educational province. In each school, researchers interviewed the school principal and collected data from six teachers (one from each of six grades), eight students (two from each grade, Grades 1-4), and eight parents serving as members of COPAs and CGESs. Gender balance was sought in the selection of all interviewees. Researchers also observed two IRI lessons in each province.

In Kinshasa, the MTR Team Leader interviewed members of the USAID education team, PIEQ project personnel, Ministry officials, education consultants, and implementing partners. In all, 442 people were interviewed or observed: 418 in the provinces and 24 in Kinshasa (see Annex B for a list of schools and respondents).

[4] See Annex F for copies of all instruments. See Annex G for a copy of the data collector's guide.

Data entry, analysis and reporting

Upon returning to Kinshasa, the research teams submitted their completed instruments to a consultant hired by PIEQ to supervise data entry. STS developed data entry templates in Excel and sent them to PIEQ. Over the subsequent eight days, the consultant supervised a team of data entry officers hired by PIEQ. STS worked closely with this consultant to clean the data, then merged the data sets and conducted several analyses, including the generation of descriptive tables for the quantitative questions, and the grouping of responses into patterns and themes for the qualitative data. The report was written by STS.

Data quality

Several issues arose that could have affected the quality of the data for this review:

- The review was conducted after the school year had ended. This prevented researchers from observing schools under real conditions. For example, IRI observations had to be organized specially for this review.
- Due to time constraints, it was not possible to pilot the instruments. As a result, during data collection, several anomalies were found in the instruments. For example, some of the items were redundant, some were unclear, and some were inappropriate for a given audience. Reponses to these questions were nevertheless collected and entered electronically. Where useful, they were kept for the analysis.
- Though a detailed data collection guide was developed, time constraints also prevented researchers from practicing the data collection exercise before going to the field. As a result, it is likely that researchers collected data using slightly different procedures with varying levels of consistency.
- High rates of missing data were found in some instances – for example, "99" (unknown) was registered for the sex and class taught by teachers interviewed in Bandundu in 24 of 30 cases. Because this problem was caught after researchers returned from the field, it was not possible to correct them.

In spite of these issues, researchers reported that data collection went smoothly, and that interviewees were very responsive, some even feeling free to "express their inner feelings, including children." Most fields in the instruments were filled – for example, follow-up questions such as "if no, please explain" were filled in most instances. In the main, data were consistent and sensible and therefore considered adequate for analysis.

In August, the Team Leader returned to Kinshasa to present the initial findings to four of the field researchers, PIEQ staff and the USAID team. In these presentations, participants validated the findings and added emphases in several cases, including the importance of providing motivation for key actors (e.g., trainers, M&E partners), the popularity of the small grants program, and the strong interest on the part of many interviewees to expand PIEQ to additional schools.

Findings

Findings are organized according to the categories provided in the Terms of Reference for this review. These include:

- Project design
- Outcomes of the various components, including teacher training, IRI, school kits, small grants, parent involvement. Overall satisfaction with the project was also assessed.
- M&E
- Partnerships, and
- Potential for impact and sustainability.

Project design

Project scope: According to interviewees and project documents, the original design of PIEQ called for the training of 21,000 teachers and 900,000 pupils to be reached in 3,000 schools through face-to-face training, cluster-based training, and Interactive Radio Instruction (IRI), to provide materials for learners and schools, and to train parents in school management and pedagogical support, including the provision of small grants.

Importantly, the original project design and budget was based on a formula of reaching 3,000 schools, 21,000 teachers, and 900,000 pupils. However, due to a combination of factors[5], the number of teachers to be served increased by 43% to 30,000, and the number of students to be served increased by 67% to an estimated 1.5 million. From the beginning of the project, PIEQ has served both these larger populations, which has depleted more of the budget than anticipated.

Project managers stated that the impact of this "expansion" cannot be understated: that the increase in training and material costs has had and would continue to have significant implications on the feasibility of project implementation within the approved budget parameters. For example, the Year 3 Work Plan notes that as of the end of Project Year 2, due to logistics issues and the cost of reaching 30,000 teachers, the project had not yet able been to achieve its targets regarding self-directed teacher training modules.[6] And EDC has estimated the increased costs for the two summer institutes attributable to this increase at $900,000. Comments from field mirrored this concern: when project personnel, Inspectors/master trainers, school principals and parents were asked whether PIEQ's resources were sufficient to meet the objectives of the project, only 39% said yes, and only 13% said that sufficient time was allocated to PIEQ activities (n=123). Clearly the project is overextended – a situation that urgently requires a realignment of PIEQ's resources if targets are to be met and cost overruns are to be avoided.

[5] School selection criteria established by PIEQ, USAID and the Ministry at the beginning of the project prioritized accessibility, security, the possibility of receiving radio signals from neighboring radio stations, and possibility of being clustered in groups of 2-4 schools for training purposes. These criteria resulted in the selection of schools that tended to be larger than schools originally envisioned in the proposal, which had assumed 6 classrooms (grades 1 – 6) and 6 teachers per school. Schools selected for participation in PIEQ often have multiple classes at each grade level.

[6] PAQUED Third Year Work Plan: October 1, 2011 – September 2012

Unanticipated costs: In addition to the increase in the number of teachers and pupils over the original design, PIEQ has incurred $410,000 in unanticipated costs to rehabilitate the national Kisangani Training Center (IFCEPS). While the original plan called for the rehabilitation of the IFCEPS, rehabilitation cost much more than originally anticipated because of its serious state of disrepair after being bombed during the 1998 – 2001 civil war.

Outcomes

This section presents the perspectives of respondents in Kinshasa and in the field concerning the outcomes of the project. It is organized in five categories: teacher training, IRI, school kits, community mobilization, and satisfaction with the project. Within each category, a brief description of that category is presented, followed by respondents' views of project success and achievements as well as problems and difficulties.

Teacher training

Description

PIEQ has developed and implemented three types of teacher training activities:

(1) Summer institutes (*stages*): 2-week face-to-face training for 30,000 teachers focusing on content and instructional strategies in French (2011) and math (2012). These institutes were designed to improve teachers' own knowledge and skills in the two critical subjects of French and Math. At the same time, PIEQ aimed to use the summer institutes as a way of revitalizing the existing cluster- and school-based teacher professional development structures and systems (described below).
(2) Cluster-based training (*reseaux de proximité*): Groupings of 2-5 schools and 32 teachers on average per cluster over a total of 900 clusters. Teachers meet on a regular basis in a "self-directed" training format (*auto-formation*) to share ideas and watch 20-30 minute videos. To date, master plans and scripts have been developed, and two videos have been produced and distributed to 900 clusters.
(3) Interactive Radio Instruction/IRI (*Enseignement Interactif par la Radio/EIR*) (see IRI, next section).

In Year 4 of the project, PIEQ plans to implement a fourth type of teacher training activity, the school-based *cellules de base* in which teachers meet in their schools for 1½ to 2 hours on Thursdays and Saturdays. As with the cluster-based approach, teachers will use a self-directed approach to share ideas and plan lessons together. The materials developed for the cluster-based training will also provide follow-up activities to be conducted by individual teachers or with their colleagues in their schools.

In collaboration with the Ministry, PIEQ also developed a set of teacher and student (pupil) profiles (*réferentiels*) – i.e., what teachers and pupils should know or be able to do. The profiles have been used by the Ministry to design some of their teacher training activities and materials, and served as the starting point for developing the PIEQ IRI and teacher training programs.

Successes and achievements

Revitalization of cluster-based training system: In Year 1 of the project, PIEQ played a lead role, in collaboration with the MOE and VVOB, in designing and promoting the cluster-based system of teacher training. This process, often referred to as *révitalisation*, was a major accomplishment for the project in its first year. This teacher training mode had long been part of the MOE's teacher development strategy but not been well-communicated or implemented. As noted above, criteria for selection of school clusters were also designed by PIEQ in collaboration with USAID and the MOE. However, cluster-based training has its detractors (see Problems and difficulties – Sustainability issues below).

Enthusiasm of beneficiaries: Two USAID officials noted the enthusiasm of teachers and students as a result of PIEQ interventions (also including IRI and school kits – see below). One measure of teacher enthusiasm can be seen in the participation rates in the French summer institute in 2012 in which 29,677teachers were trained.[7] Said one PIEQ staff member, "Teachers quote activities chapter and verse." According to SERNAFOR, Inspectors also report they are happy with clustering system used to organize the institutes.

Relevance of teacher training design: Project field staff, education officials, school personnel and parents (n=216) were asked if teacher training responds to the needs of their schools. Seventy-five percent responded "completely" or "mostly." A slightly lower percentage – 64% - responded "completely" or "mostly" when asked whether the cluster based training with video responds to the needs of their schools.

Changes in teacher knowledge and practice: One of the biggest achievements of PIEQ to date was the 28% improvement in teachers' test scores from pre-test to post-test in the 2011 French institute (results from the 2012 math institute have not yet been analyzed). USAID officials and the PIEQ COP also noted that teachers were increasingly making self-instructional training part of their daily routine.

Contributions to the teacher education system: Numerous interviewees cited the teacher profiles as one of PIEQ's biggest contributions. DIPROMAD, the materials development arm of the Ministry, called the profiles a "foundational document" for developing teacher training programs, and the Director of SERNAFOR called PIEQ "a pioneer" for developing it. The SERNAFOR Director also applauded the construction of the TRCs, and noted that the French institute was "fantastic," and the Inspector General called the TRCs "jewels and gifts." Officials at DIPROMAD noted that "PIEQ helps us do what we can't do – e.g., reach teachers with materials." Other interviewees cited radio, materials and school kits as important contributions. So pleased was the official from SERNAFOR that she noted that teachers are now "teaching at 2 speeds" – ones trained by PIEQ and ones who were not.

[7] Participation data and possibly preliminary results from math institute pre- and post-tests should be available soon.

Renewal of the teacher education system: To the question whether the PIEQ teacher training program had renewed the Ministry's cluster training system, 82% of project staff, education officials, and school personnel responded "completely" or "mostly" (n=133). Even more (89%) responded "completely" or "mostly" when asked if PIEQ had renewed the school-based training structure (*cellules de base*) (n=134). Evidence of this renewal could be seen in the 600 visits made by Inspectors (Master Trainers) to schools after training, according to the PIEQ Year 3 Quarter 2 report.

Problems and difficulties

Numbers of targets: Project staff in Kinshasa and in the field noted that the sheer number of schools to be reached and teachers to be trained was an all-consuming concern: how to organize cluster-based training for 30,000 teachers, how to cope with the logistical problems with delivering materials, providing transportation, paying all partners in the chain, collecting M&E data on teacher training,[8] and ensuring quality control, was consistently reported as perhaps the biggest difficulty in the project. Of course, these problems would have been reduced had PIEQ been able to limit its coverage to its original estimates. These problems were exacerbated by the need to reach increased numbers, as discussed above.

Training focused more on content than on methods: One frustration of PIEQ teacher education staff is that much training of teachers has primarily focused on French and math content rather than teaching methodology. Said one staff person, "We've only started with pedagogy," noting that the French summer institute should have focused not only on reinforcing French language skills, but on the teaching of specific reading competencies.

Motivation: A common refrain heard amongst PIEQ staff is the constant request from the field to improve "motivation" for various actors. This refrain cuts across projects and programs (see for example M&E below). Though "motivation" might be interpreted as making activities more meaningful or enjoyable, it most often means remuneration for transport, food, lodging, attendance, or services provided. Interviewees frequently cited the need to motivate teachers, support inspectors, and ensure that trainers have mobility – all recommendations that can involve some sort of financial support. PIEQ is attempting to address this problem by awarding teacher participation certificates in the summer institutes and by making video modules available to teachers, but more needs to be done (see Discussion section).

Technical issues: Video, one of the components of the PIEQ teacher training model, was beset with some of the same problems as the IRI radios (discussed below). The design called for the use of video in cluster-based training through which teachers would be able to observe other teachers practicing in the classroom, as well as receive additional support in areas such as using IRI use and making instructional

[8] To add to their burden, project staff were asked to provide the names of all 29,677 participants to be vetted and cross-checked against USG databases for terrorism concerns – an EDC compliance measure that required months to accomplish.

materials. The equipment to be used to play these videos – a RAN10 video screen – is solar powered and runs programs produced by PIEQ stored on an SD card. PIEQ experienced several difficulties with these players, including customs delays and short battery life. At the time of this review, PIEQ had replaced the batteries and was ready to use the players as planned.

Sustainability issues: A number of sustainability issues were raised by implementing partners who questioned PIEQ's resource-intensive approaches such as the summer institutes – approaches that others reportedly couldn't replicate. Said one partner, "We don't have the resources the US government does."

Another prominent concern was the cluster training design. One partner claimed that clusters can't work in DRC because distances are too great - sometimes reaching 20 kilometers between schools, especially in Equateur. (One PIEQ staff member cited cluster-based participation rates in Bandundu at 30-50%, though it is unclear if the reason for these low rates is distances between schools.) Because of the problem of distance, another partner predicted that "the video (in the cluster trainings) will not come together."

A consultant to the Cellule d'Appui Technique (CAT), a technical assistance advisory group in the Ministry, noted that because of the problem of distance and cost, it would be best to explore other options such as placing TRCs at the district level. One partner also expressed reservations about the TRC approach, noting that Oxfam had built one at Mbandaka but it never functioned, perhaps because there was no equipment or lodging provided to participants.

In lieu of these costly approaches, some partners called for PIEQ to more thoroughly explore ones under consideration by the Ministry, such as school-based training, teacher discussions, exchanges, school director training, school management teams, and parent involvement. Indeed, according to the Intermediary Education Program (*Plan Intermédiaire de l'Education/PIE*), school-based training is the principal method under consideration at this time, with radio (though not necessarily IRI) and video to be used as support.[9] And though some Ministry officials in this review spoke highly of support provided by PIEQ for its structure of cluster-based training, PIE makes no mention of this training model. It appears that the school-based vs. cluster-based discussion is still evolving.

IRI

Description

Interactive Radio Instruction (IRI) is an instructional technology used by PIEQ in which radio programs are played in the classroom to help teachers teach French

[9] « L'approche retenue pour la formation continue restera majoritairement celle de l'enseignement à distance (radio, vidéo) avec la création d'un environnement propice à l'autoformation[9]. La méthode s'appuiera sur les « unités pédagogiques », les cellules de base et les espaces d'apprentissage entre pairs au niveau de l'école et dont les mécanismes d'échange et de partage sont déjà pratiqués ou au moins connus. La radio et la vidéo semblent être les technologies les plus appropriées ». *Plan Intermédiaire de l'Education*, draft (août 2011), p. 28.

language, reading, writing, and math.[10] In use in many countries around the world, IRI makes use of a "radio teacher" in the program who gives the classroom teacher and students direct instructions to carry out educational activities during classroom instruction. The PIEQ package consists of 690 30-minute programs from Grades 1-6. Initially, teachers were issued MP3-based radios in which they could select programs from an SD card and play them at any time. However, due to equipment problems (see below), PIEQ resorted to broadcasting the programs in some instances. To date, 32 radio stations have broadcasted IRI for Grades 1 and 2, and 15 radio stations subsequently the Grades 1 and 2 "Support Reading and Maths" programs.

Successes and achievements[11]

Several partners called IRI one of the project's greatest achievements. The following are some of the reasons.

Rate of production: In its short time in the DRC, PIEQ has produced IRI materials at an extraordinary rate: 490 programs spanning Grades 1-6 have been scripted, recorded, pilot tested, and introduced into schools, accompanied by the production of teachers' guides, teacher training, and monitoring. And as with all instructional design processes, the production of IRI programs followed a series of intensive preparatory activities that included curriculum analysis, master planning, training of script writers, and recruitment and orientation of recording partners – a huge feat in two and a half years, a feat even more impressive given the logistical difficulties and costs discussed above.

An effective instructional method: A USAID official praised IRI's ability to help students learn through interactive means. Eighty-two percent of students in this review said that IRI is an effective way to learn to read, and 72% said it is an effective way to learn to write and to do math (n=144). In most cases, adults' views were similar: one project staff claimed that "a scientific approach has now taken hold – one that helps teachers see that children have knowledge, and that allows children to give their point of view." When asked what they liked about the radio lessons, most students replied that they liked the participatory and active methods. When asked how the radio lessons helped the students learn better, most students answered that it helped with reading, speaking and singing. When asked about the contribution of IRI in the capacity-building of teachers in reading, most respondents replied that it helps facilitate and guide teachers and students during lessons, strengthened the teaching of reading, and improved pronunciation.

Institutionalization: Ministry officials were, in the main, enthusiastic about IRI and its use in DRC classrooms. An official at SERNAFOR reported that the MOE was

[10] In the case of PIEQ, the model might more accurately be called IRI/IMP3I or (Interactive MP3 Instruction) since programs can be played either via radio waves or MP3 programs (or in the case of PIEQ, IMP3I – Interactive MP3 Instruction) pre-recoreded on SD cards.

[11] For this review, 86% of interviewees in the field (n=142) said they had participated in IRI activities. However, even though researchers were instructed to select schools in which IRI was being used, only 1 of 18 schools in sample reported using it regularly. It is not clear why this chance selection of schools resulted in such a low number of IRI users.

beginning to copy PIEQ with school broadcasts, and another official said the MOE wants to pilot it throughout the entire province.

Parent involvement: Some respondents reported that when IRI was present at schools, parents often got curious and starting to inquire more about school activities.

Problems and difficulties

USAID representatives asked in this review: can radio work? The question is apt: in spite of its promise, problems faced by IRI in this project raise questions about its appropriateness in the DRC context.

Delayed rollout: Early in the project, PIEQ experienced several delays in the rollout of the IRI programs. First, there was a long delay in getting the contract signed with the studio. Then, when the radios did not arrive at the scheduled time, the project was therefore required to shift to a two-stage distribution plan, distributing what was ready in the first step, and the remainder in the second. The Grade 1 and 2 delays carried over to Grades 3 and 4, for which distribution was also split in two, which reportedly had a negative impact on rates of use.

Equipment problems: This point probably generated the most input from interviewees on IRI. PIEQ's experience serves as a reminder of how difficult it can be to mount such an effort in a country with challenging infrastructure and geographic conditions, and where the quality of the equipment cannot be guaranteed. First, as noted above, the radios arrived late. When they were eventually delivered to the schools, teachers complained that one per school was not enough. Once in use, it was discovered that in MP3 mode (which uses pre-recorded programs on SD cards rather than broadcast), batteries often lasted for less than an hour, and the majority of the crank handles broke due to vigorous cranking. Moreover, the solar panels didn't always function properly. (Due to these defects, Lifeline Energy provided new solar panels and gear boxes and will pay for the distribution and installation of these new components.) While PIEQ was remedying these power problems, the project began broadcasting radio programs, which takes less battery power. However, the cost of broadcasting over all radio stations in the three provinces (52) was prohibitive, so only some stations were engaged to broadcast. At times, some stations did not have electricity, usually because of lack of fuel to run their generators; at other times, they broadcast but not during school hours.

In addition to equipment failure, respondents noted problems such as rechargeable batteries and the SD cards disappearing, and the discouragement of students when teachers had problems using the radios.

Instructional design issues: According to the original project design, IRI programs would be based in part on the findings from the EGRA and EGMA baseline, especially gaps identified in students' learning in reading and math. Unfortunately, the EGRA and EGMA testing and results were delayed, so the IRI programs in Grades 1 through 4 could not benefit from their findings; however, the programs for Grades 5 and 6 aligned with the areas identified by the EGRA and EGMA

baseline in which students showed the greatest need for support. (Instead of relying on EGRA and EGMA for Grades 1-4, PIEQ conducted audience research to identify students' learning needs and interests.)

As noted above, the programs were well received by the ministry, teachers and students. However, some interviewees for this review expressed several concerns. First, though the programs were roundly viewed as well done, many teachers and School Directors said the IRI lessons did not follow the national curriculum, were too difficult for the students, and left no room for flexibility or adjustments. (Author's note: This last point could be a feature of any radio programming.) One IP noted that the radio teacher's French was better than that of most DRC primary *teachers*. Second, though the language policy calls for the use of local language as the medium of instruction in Grades 1 and 2, with a transition to French in Grade 3,[12] all programs from Grade 1 on were developed in French, owing to the budgetary implications of having to develop them in multiple languages. Third, some respondents, including school principals, teachers and even students, commented that the songs and dances are distracting. Finally, and perhaps most frequently, interviewees noted that the fast pace of IRI instructions caused teachers to lose their place and students to lose focus.

Impact on teaching and learning: Some respondents replied that IRI helps with error correction and spelling improvement; however, only 52% of adults interviewed, including project staff, education officials, and school personnel, felt it was an effective way to teach writing. Some interviewees also noted that while IRI provides guidance for teachers to use active methods during the lesson, teachers don't necessarily continue using these methods in their regular instruction. The Coordinator of the IRI script writing teams observed that teachers tended to use the new practices during the programs, then revert to habitual way of teaching after the program.

Lack of research, monitoring: One USAID official lamented the lack of follow-up and monitoring with the IRI program. Indeed, at the time of this survey, no data were available on usage rates, much less on impact on teaching and learning, though some project staff speculated that between 20% and 30% of PIEQ teachers are currently using IRI.

School kits

Description

As part of the PIEQ effort to create a supportive learning environment, school kits have been distributed to all PIEQ schools. These kits are designed to help both make improvements in the school infrastructure as well as provide support for instruction. As such, they contain repair materials such as hammers, nails and glue, as well as

[12] It is important to note that to date, the government has not taken any significant steps to materialize this policy. Teachers still lack teaching and learning materials and training in local languages and, as a result, many continue to teach in French.

instructional materials such as teachers' guides, paper, and markers for making school posters (see Annex C for a complete list). All PIEQ schools have received tool kits. Sixty percent of the students contacted for this review able to cite the materials in the kit and how they were used, whereas 40% of the students said they had not received kits, suggesting they had either not been used yet, or had been used by adults without the students' knowledge.

Successes and achievements

According to one USAID official, the provision of school kits was one of the biggest achievements of the project. When asked what parts of the school kit helped the students the most, most teachers and school directors cited the tools for making instructional materials, the teachers' guide, and the radio. Eighty percent of students reported that the kits "completely" or "mostly" responded to the needs of the school.

Problems and difficulties

The kits received few negative comments. One interviewee questioned their sustainability. Project staff reported that PIEQ lacks data on kit use, both the extent to which the materials are being used, and how. Field researchers noted that visibility and branding might be an issue, saying that on several occasions, when they asked teachers to show them their PIEQ kits, the teachers didn't seem to understand what was being asked and instead showed them sets of UNICEF materials.

Community mobilization to improve the school environment

Description

The community mobilization component of PIEQ is implemented by CRS through its partner, Caritas. The objective of this component is to empower parents to play a greater role in the management of their schools, thereby creating a more supportive school environment. Parents serving as members of two types of parent associations - COPAs and CGESs - are trained to manage personnel, financial resources, and infrastructure, and to develop annual School Improvement Plans (SIPs) and oversee their implementation.

An important feature of the community mobilization component is the school grants program in which PIEQ provides up to $2,000 to schools for improvements identified by parents in the COPAs and CGESs.[13]

Since the beginning of the project, the community mobilization component has been able to achieve the following:

- Distribution of small grants of up to $2,000 to 60 COPAs to carry out projects like the construction of school fences and the purchase of equipment, desks, chairs, blackboards, and roofs.

[13] ~~Since~~ $2,000 is often insufficient for the kinds of repairs or modifications needed by many schools, PIEQ is currently considering reducing the number of grantee schools ~~– e.g., from 3,000 to 500 –~~ and increasing the level of funding ~~to $5,000~~ per school. Such a reduction in the number of schools appears possible because some PIEQ schools are already ~~currently~~ receiving support through other organizations.

- Development of four training modules: Pedagogy, finance and administration, participatory management, and the rights of the child.
- Development of and broadcast of 39 community radio programs.
- Training of 1,580 COPAs and CGESs in school management. Most parents for this review reported taking part in training on good governance, the rights of children, and the school environment.
- Development of a school environment profile.

When asked about the types of school management activities in which parents were involved, project staff, education officials, school principal, and members of COPAs and CGEs (n = 53) indicated that parents were involved with instructional materials, personnel and infrastructure, with fewer reporting that they were involved with managing school finances.

Successes and achievements

When asked about the community intervention component's biggest achievements, interviewees in Kinshasa cited the rate of community participation, the fact that the Ministry had defined parents' roles in terms of their participation in school, and the collaboration with DIPROMAD in the development of the community radio lessons. According to field staff and school principals, parent training appears to have been relevant and effective: 73% said that parent training "completely" or "mostly" responds well to the needs of the school; however, many also reported low levels of parent participation. Eighty-six percent of project staff and school principals claimed that PIEQ had "completely" or "mostly" increased community involvement in the management of the school. Some respondents also reported that the small grants program was extremely popular.

Problems and difficulties

Production difficulties: Several months after PIEQ and the MOE began recording the community programs, the Ministry studio burned down, resulting in production delays. The studio was recently rebuilt, and PIEQ continued recording community radio programs with the MOE.

Staffing: The management of the community mobilization component has experienced several difficulties as well due to project size. Two project staff per educational province must reach 1,000 schools – a difficult enough task in a vehicle, but project staff only have motorcycles in a country with poor roads or in some places, none at all, with heavy rains and potential security issues, especially in the east.

Information management: Field staff reportedly lack competencies in program M&E, relying mostly on narrative, qualitative observations rather than producing quantifiable M&E data. As a result, reports from the field consist mostly of qualitative summaries (*synthèses*). When reports arrive, they appear to be archived by senior project management at CRS rather than shared across PIEQ. As a result, the community mobilization staff member interviewed for this review was unable to

provide the Team Leader with an example of one of these reports, stating "it's my superior who has the competencies."

Limited broadcast capacity: As with IRI, the greatest broadcast coverage that can be provided to PIEQ schools and communities requires the use of 52 radio stations – a prohibitive cost. As a result, only 19 programs were broadcast at the end of Project Year 2 through 32 radio stations along with the IRI programs; in Year 3, all 39 were broadcast but only through 15 radio stations.

Small grants delays: Due to an extended compliance procedure on the part of HQ in the US, the processing of many small grants has been delayed since the beginning of the project. Perhaps this delay accounts for the views of most (65%) project field staff and school principals who said that small grants do not meet the needs of the school, and only 45% said the grants "completely" or "mostly" improved the school environment. However, it must be noted that respondents were not asked if they'd received grants, so some of these responses might simply indicate they had not yet received them.

Branding and visibility: Field researchers noted that when PAQUED renovates a school, signage is not provided to attribute the support to PAQUED and USAID, as is done by UNICEF, World Vision, and others.

Satisfaction with the project

Description

In order to gauge general satisfaction with the project, all PIEQ Coordinators, M&E officers, trainers, education officials, Caritas partners, school principals, teachers and parents (n=224) were asked: Is PIEQ on the right path? (*sur la bonne voie*). Over three quarters (77%) said "completely" or "mostly" with twenty-three percent reporting "somewhat" or "not at all."

Successes and achievements

When asked: What are PIEQ's greatest contributions? respondents in the field most often cited teacher training and capacity building, the development and use of instructional materials, improvements in school conditions, and IRI. In interviews in Kinshasa, most Ministry officials praised PIEQ's collaboration with the Ministry, the face-to-face trainings, and the construction and rehabilitation of the Teachers' Resource Centers. Perhaps the biggest endorsement was the consistent refrain that PIEQ should be extended to other schools.

M&E

Description

The PIEQ Monitoring and Evaluation (M&E) system seeks to capture progress against 44 indicators as described in the PMEP and the M&E Procedure Manual. Monitoring activities consist of tracking a number of project activities and filling the appropriate forms included in the annexes of the Procedure Manual by project staff and partners,

especially school principals and provincial education officers (PROVED, IPP, IPAF). The following monitoring and evaluation activities have been conducted to date:

- A baseline study of the schools, communities and provinces to be reached (2010)
- Early Grade Reading Assessments (EGRA) and the Early Grade Math Assessment (EGMA) carried out every two years in a quasi-experimental design. Each time, a sample of 5,400 students from Grades 2 and 4 from a treatment (PIEQ) and comparison (non-PIEQ) schools are tested (Grade 6 students were also tested in the baseline). The assessments have been conducted twice: once in 2010 (the baseline) and once in 2012 (the mid-line).
- Pre-test/post-test assessments of teacher learning in the French institute in 2011 and (in progress) in the math institute in 2012 have been conducted (with support from School-to-School International) to measure teacher learning gains over the course of the institutes.
- RTI is doing teacher competency evaluations at the beginning and end of project.
- Audience research was conducted to prepare for IRI program development.
- Collection and submission of monitoring data for quarterly and annual reporting.

PIEQ has one M&E officer in each of the three educational provinces charged with ensuring the filling and submission of all M&E forms in a timely manner. Once data for Objectives 1 (teacher training) and 2 (student support and IRI) are submitted to field officers, the officers forward them to the PIEQ office in Kinshasa, where they are entered into Access for analysis and reporting purposes. For Objective 3 (community mobilization), data are submitted from the field directly to CRS for processing and reporting.

Successes and achievements

The M&E component of PIEQ has done a respectable job putting the pieces of an M&E system into place, including a well thought out PMEP, an M&E Guide with many useful instructions and forms, detailed PIRS (Performance Indicator Reference Sheet) forms, the placement of M&E officers - one in each of the three educational provinces - and the training of PROVEDs, IPAFs, and IPPs in M&E data collection. Information gathered through this system has been used in the submission of quarterly and annual reports.

Problems and difficulties

PIEQ's M&E system is struggling with a number of issues.

Insufficient resources: Like PIEQ itself, the project's M&E program is overextended and under-resourced: this was the biggest finding to come out of this review concerning M&E. USAID staff indicated that staff are overloaded, even in Kinshasa, and that there are simply not enough people available for data collection. Each PIEQ M&E Officer has the staggering responsibility of covering 1,000 schools

without support staff. The problem of being overextended has no doubt exacerbated logistical problems: the vast majority of interviewees, both in Kinshasa and in the provinces, stated that the main problem faced by the PIEQ M&E program is getting information from the schools to the provinces and back to headquarters. Many respondents stated that one reason for this problem was the lack of "motivation" for partners to fill forms correctly and deliver them to provincial capitals in a timely manner. Another reason given was the need for more training of M&E partners. Whatever the solution is, the current level of resourcing for M&E appears to be leading to significant delays – sometimes three months or more – between the time information is provided and when it is reported.

Lack of real-time data use: As a result of the resource constraints described above, M&E data are not used in real time for decision making in PIEQ. Partners in the field who have provided information have never received any reports based on the information they have provided. Similarly, project personnel in the provinces and in Kinshasa are unable to access data relative to their components. For example, no teacher observation baseline was conducted that might serve as a reference for changed behaviors over time, no one really knows how many people are using the IRI or community mobilization radio programs, there is no empirical information on how the first teacher training two videos were received or used, and no systematic information exists about how school-based training is conducted or the how school kits are being used.

Inadequate verification mechanisms: Though the M&E Procedure Manual contains many useful tools, and the project has a series of detailed Performance Indicator Reference Sheets (PIRS), this review found no master guide in which all information as centralized in one place – for example, a master reference sheet citing forms to be filled, timeframes for submission, responsible parties, and mechanisms of supervision. The system also seems to lack basic verification mechanisms such as ensuring receipt of forms in the field. More critically, due in large part to personnel limitations, data quality often cannot be verified. For example, conducting spot checks in schools of data reported by school principals is rare.

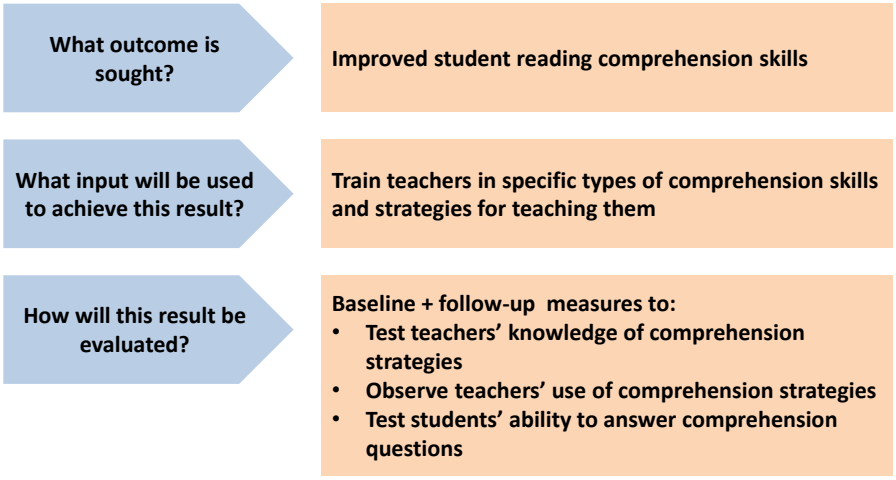
EGRA/EGMA test validity in Grade 2: Both tests were in French (as they were in Grades 4 and 6). However, the language policy in the DRC calls for the use of local language as the medium of instruction in Grades 1 and 2, with a transition to French in Grade 3. Overall, EGMA results were extremely poor, with very large percentages even of grade 4 and 6 males and females unable to read a single word or answer a comprehension question correctly.[14] Similarly, EGMA results were poor, with students at all grade levels showing difficulties with missing number or number patterns, word problems, and basic operations.[15] Nevertheless, had the EGRA an EGMA tests been conducted in local languages in Grade 2, the performance of these students may have been different; it important to note that, according to the EGRA and EGMA reports, only 5.3% of treatment students and 5.5% of control students reported speaking French at home.[16] But more importantly, testing in local languages in Grades 1 and 2 would provide a higher

[14] EDC/RTI (2011) PAQUED: DRC – Baseline report, Early Grade Reading Assessment (EGRA)
[15] EDC/RTI (2011) PAQUED: DRC – Baseline report, Early Grade Math Assessment (EGMA) p. 27.
[16] EGRA Report 2011 (op cit), p. 2.

degree of validity since it would have tested students' knowledge of reading and math in the languages of actual instruction. The EGRA and EGMA reports state that the tests were designed this way because PIEQ is supporting the teaching of French. However, support for French instruction in Grades 1 and 2 should be understood as support for French as a subject, not as the language of instruction.

Targeted input-outcome evaluation design: PIEQ has no targeted input-outcome evaluation design that targets specific project outputs, then links those outputs to specific inputs and corresponding evaluation strategies. To be sure, PIEQ's PMEP indicators are in line with the proposal and mission objectives, and PIEQ has done a good job obtaining some key measures, like improved teacher knowledge as measured by the pre- and post-tests in its summer institutes, and student mastery of basic reading and math skills as measured by GRA and EGMA conducted in 2010 and 2012. Moreover, PIEQ has important building blocks in place for the creation of a targeted input-outcome evaluation design, including the results from the EGRA and EGMA assessments, which have been incorporated into the IRI lessons in Grades 5 and 6,[17] and the competencies cited in the student and teacher profiles. But the competencies cited in the profiles as well as those being measured by EGRA and EGMA are simply too numerous to track in any manageable way. For example, the EGRA test used in DRC measures a number of reading skills, including vocabulary, letter/sound knowledge, phonemic awareness, familiar word reading fluency, invented word reading fluency, oral reading fluency, reading comprehension, listening comprehension, and ability to write in a dictation exercise. Will PIEQ attempt to improve all of these, and at all grade levels? Are some more important than others? Which ones might teachers have the most trouble improving? These are the kinds of questions that could drive the design of inputs which would lead to both a more manageable number of inputs as well as more targeted measurement of outcomes. If PIEQ created such targets, success in achieving some measurable results will be more likely and, hopefully, the possibility of linking them to specific PIEQ inputs – Figure 1 provides an example. Such a design would also enable PIEQ to economize on scarce project resources.

Figure 1: Targeted input-outcome evaluation design: An example



[17] A review of Grade 3 and 4 IRI programs also revealed that they responded to difficulties identified in the EGRA and EGMA baselines, though this review was conducted after the programs were developed.

Question about the use of EGRA and EGMA results: Related to the previous point, PIEQ has not yet determined how it will report the number of improved readers (as determined by the EGRA assessments) to USAID/Washington. How is "improved readers" to be defined? [18] Did some teacher training activities have more of an impact than others on student learning? Moreover, in light of the differing outcomes found across region in the EGRA and EGMA baseline, the question remains whether PIEQ will, or can, adapt its interventions differently to each province.[19]

The need to measure improved readers: Based on the goals outlined in USAID's Education Strategy: 2011-2015, missions around the world are being called on to report the number of improved readers as a result of their investments. PIEQ currently lacks a method for doing this (see Recommendation 4 below).

Partnerships

Description

PIEQ works closely with the various branches of the MOE, which provides rooms and facilities for PIEQ activities, collaborates with PIEQ in the implementation of teacher training and small grants activities, and assists with the development and distribution of materials to teachers and schools. PIEQ also works with education partners such as OPEC, its sister project funded by USAID and implemented by IRC. Most of these collaborations consist of joint meetings to report progress and share experiences.

Strengths and successes

USAID and all Ministry officials consulted for this review all cited PIEQ's collaboration with its partners as one of its biggest achievements. Success of this partnership can be found in the adoption of its tools by CAT and SERNAFOR, which are using the teacher profiles and the EGRA and EGMA results, and OPEC, which uses PIEQ's materials extensively, including activities pulled from the IRI teachers' guides, teacher profiles, indicators for social/emotional learning, and the EGRA and EGMA tools. Members of the Ministry's CAT indicated that PIEQ "is in line (*coherent*) with MOE direction and its teacher training plan, and the General Inspector spoke of a "perfect collaboration, things are done together, nothing is imposed." Field research revealed the same pattern: when asked if PIEQ was integrated with other actors in education sector, PIEQ staff and trainers, education officials, and Caritas staff overwhelmingly said yes (31 of 34). As a result, in part, of this collaboration, USAID commented that "the Ministry respects PIEQ."

[18] As part of the USAID's new Global Education Strategy, each USAID mission is required to report the number of improved readers, yet clear guidance on a procedure for counting has not yet been provided by USAID/Washington. In the meantime, several questions remain unanswered: what evaluation model should be used to avoid double counting? Can sampled results be generalized to all project schools? Can project results be generalized to the entire region or beyond? See Annex H for a description of a difference in differences design as one approach.

[19] "These results suggest that implementing the same interventions in all three provinces might not result in similar absolute levels after the intervention; although they might result in similar learning gains over time, the gaps among the provinces would remain." EGMA Report 2011 (op cit), pp. 26-27.

Problems and difficulties

As noted above, the project was viewed as a strong partner in most cases; however, some exceptions to this view were expressed. For example, DIPROMAD officials noted that PIEQ had not shared materials, reports, or data with their office, which they said could have negative consequences for sustainability. Another partner said that "EDC and USAID can be top-down and reports aren't shared, so no lessons are learned." One problem is that PIEQ reports must be translated before being shared, which often does not occur. And though USAID holds quarterly technical meetings to share information, one partner felt they were superficial and "not good for the country."

Perhaps the biggest concern raised about partnering was leveled at USAID. One implementing partner complained that USAID can at times advocate for "unmeasured strategies," others raised concerns about the extent to which USAID consults others before making programming decisions.

If PIEQ could have one result…

Finally, in response to the question "Are we doing the right thing?" and the need for PIEQ to be realistic about its scope and what it can achieve by the end of the project, interviewees in Kinshasa were asked: If PIEQ had to limit its focus to one outcome, what should it be? The following is a list of answers given and their respondents:

Table 2: If PIEQ could have one result: Responses

Answer	Respondent
Develop a viable, dynamic national in-service training model and plan with financing that would conform to structures in place	PIEQ staff members Inspector General USAID
Functioning TRC	USAID
TRC in each province	SERNAFOR, PIEQ staff member
Teachers adopt new strategies, even simple ones	PIEQ staff member
Teachers trained	Consultant to Ministry
Improve student performance	Consultant to Ministry

This list provides clues about possible directions for PIEQ and where it might focus its energy over the remaining two-plus years. The emphasis appears to be on the development of a viable in-service teacher training model. Interestingly, two of PIEQ's main program components – IRI and community mobilization – do not appear in this list.

Discussion

Context

Before beginning the discussion, an important observation must be made: working in the DRC is difficult. Beyond the ever-present problems imposed by logistical barriers, dilapidated infrastructure, and the sheer size of the country, there lies a deeper, more problematic issue. As one interviewee said, "It's hard to work in a system where people have given up, they no longer believe in good things. The system is very, very broken. No matter how much you put in there, it's difficult to feel the results." DRC is a country in transition – a country that is at once post-conflict country and struggling to emerge from conflict – and many people, not least the those living in the DRC, are seeking ways to turn the tide of cynicism, corruption, and systemic decay. But it will take time. It is in this context that PIEQ and other assistance programs are struggling to deliver results within reasonable time and budget constraints, and to achieve genuine improvements in the quality of education – in short, an extremely challenging task.

What's working?

According to the findings from this review, and in the view of this consultant, three aspects of PIEQ are working well:

Partnership with the Ministry: PIEQ has developed a strong partnership with the Ministry by collaborating in the production of pedagogical materials and in the implementation of PIEQ training programs. Moreover, by virtue of the nature and quality of its interventions, especially its radio programs, teaching and learning standards, and renewal of the cluster-based training model, the Ministry has come to see PIEQ as an educational leader – one that it seeks to emulate and whose innovations it would like to see expand.

Delivery of quality inputs: If project staff are frustrated because much of their time is spent on "getting things out the door," they are to be lauded for the sheer number of things they have delivered, and the numbers of beneficiaries reached, in such a short time – this in spite of the thousands of logistical problems encountered in the process. And according to respondents in this review, the quality of many of these inputs was strong, especially the teaching and learning standards, the EGRA and EGMA assessments, the IRI programs, the fit between inputs like the school kits, community training, and teacher training with the needs of PIEQ schools.

Adaptability: Since its launching, PIEQ has been challenged by issues large and larger, from technical problems with radios to the discovery that many Inspectors lacked the capacity to serve as trainers. Yet PIEQ has adapted by fixing or replacing radios, introducing radio broadcasts as an alternative to SD cards while trying to solve technical problems with radios, and complementing the Inspector trainer pool with Conseillers Pédagogiques (CPs) and skilled secondary school teachers when needed. In spite of long odds, PIEQ has overcome seemingly

insuperable hurdles time and again with practical solutions that have in most cases solved critical problems.

What's not working?

According to the findings from this review, three aspects of PIEQ are particularly problematic and require substantial revision if the project is be able to produce its deliverables on time and within budget.

Scope and resources: The scope of PIEQ is too broad to allow for effective implementation and meaningful impact. The requirement to reach a larger number of teachers puts the project at risk of failing to significantly improve student reading and math abilities. Project staff in Kinshasa repeatedly expressed their concern about having to continually reach 30,000 teachers, knowing that the budget didn't permit it and that impact was likely to be compromised.

Moreover, rather than piloting interventions gradually before scaling up, the project immediately began working in 3,000 schools with 30,000 teachers. This was, in part, a deliberate decision: as the project proposal argued,

> This is not the time for pilots. It is time to build on past successes and take them to scale so that large numbers of students across the Congo have access to stable, high quality learning environments. This EDC-led team has worked extensively with the MEPSP to field test structures and tools that will support the achievement of the goals outlined in the PAP.[20]

EDC's predecessor project PAGE had developed 200 IRI radio programs for Grades 1 and 2, and PAGE and another previous project, SIEEQ developed teacher training methods and materials, and raised community awareness on a number of issues. However, these elements had never been piloted as a single package ready to be scaled to 21,000 teachers, let alone 30,000. Moreover, PAGE and SIEEQ did not have as "comprehensive" of a package as PIEQ does. Development practice over the years has repeatedly shown that when innovations are not piloted before to going to scale, the result is reduced impact, wastage of project resources, and in most cases, the demoralization of partners and intended beneficiaries. The failure to scale up gradually constitutes a second factor putting PIEQ at risk of not meeting its targets. Of course, until the results are in from the second round of EGRA and EGMA, it is premature to draw any conclusions. But even if some gains have been realized, PIEQ would be wise to stabilize its package of support to teachers and schools in collaboration with the MOE, and pilot this package in a limited number of schools – even if only for a few months – before scaling to a larger number. This approach need not exclude the original 3,000 schools, which can continue to benefit from a more basic package of support through the life of the project.

The M&E component lacks the resources and design coherence needed to function effectively. The PIEQ Performance Monitoring and Evaluation Plan (PMEP) states that "USAID and EDC require that five data quality standards be maintained at all

[20] PIEQ project proposal, p. 2. PAP is the list of priority action plans included in the Ministry's Interim Education Plan (PIE).

times: validity, integrity, precision, reliability, and timeliness."[21] Given the discussion about M&E above, it is fair to ask how many of these standards are being met. Issues of validity were raised in the discussion about EGRA and EGMA. The standards of integrity, precision, and reliability are difficult to assess without the necessary systems of verification in place. But most critically, timeliness is clearly not possible with such critical resource deficits. If this problem is not corrected, project staff will continue to implement activities in the absence of information that can help them know what is working, what is not, and what corrections to make to improve project performance – the very purpose of an M&E system. And in the absence of a targeted input-outcome evaluation design, it will not be possible to know which specific PIEQ inputs resulted in their intended outcomes. This problem, common to many projects, has significant implications for future USAID programming which will be based on an unclear picture of which aspects of PIEQ merit their investment in future teaching and learning improvement projects.

Is IRI an appropriate way to support learning in the classroom in the DRC? As the PIEQ project proposal stated, "Interactive Radio Instruction, now part of the PAP, is PIEQ's primary mechanism to enhance students' and teachers' learning and mobilize community support for education."[22] The effectiveness of IRI cannot be disputed: IRI has been shown to have a clear impact on teaching and learning both throughout the world, including the DRC. [23] And respondents in this review overwhelmingly expressed their enthusiasm for IRI and its effectiveness in the classroom. However, the PIEQ experience has also shown that geographic and infrastructure issues can render radio broadcasting to schools problematic and expensive, and that vigilance is required to ensure the proper functioning of MP3 players (especially to guarantee an adequate power supply). Moreover, due to delays in development and rollout, the full IRI program (Grades 1-6) will only become available to all PIEQ schools starting in September 2012 – year 4 of a 5-year project. Such problems raise questions about the extent to which IRI will, or can, be used in all PIEQ schools. And in a context where the Ministry is seeking low-cost ways to provide school-based support to teachers throughout the DRC, the appropriateness of IRI must be questioned as a vehicle for delivering instruction. The evidence from this review suggests that in spite of the pedagogical attractiveness of IRI, lower cost and lower tech solutions, including ones that can be adapted to local languages in the lower grades, might be more appropriate choices for the Ministry's strategy of expansion to all DRC schools. (Note that this concern should not necessarily affect PIEQ's implementation of IRI for the remainder of the project, but should rather stimulate whether USAID consideration of its support for IRI and possible alternatives in light of current Ministry priorities.)

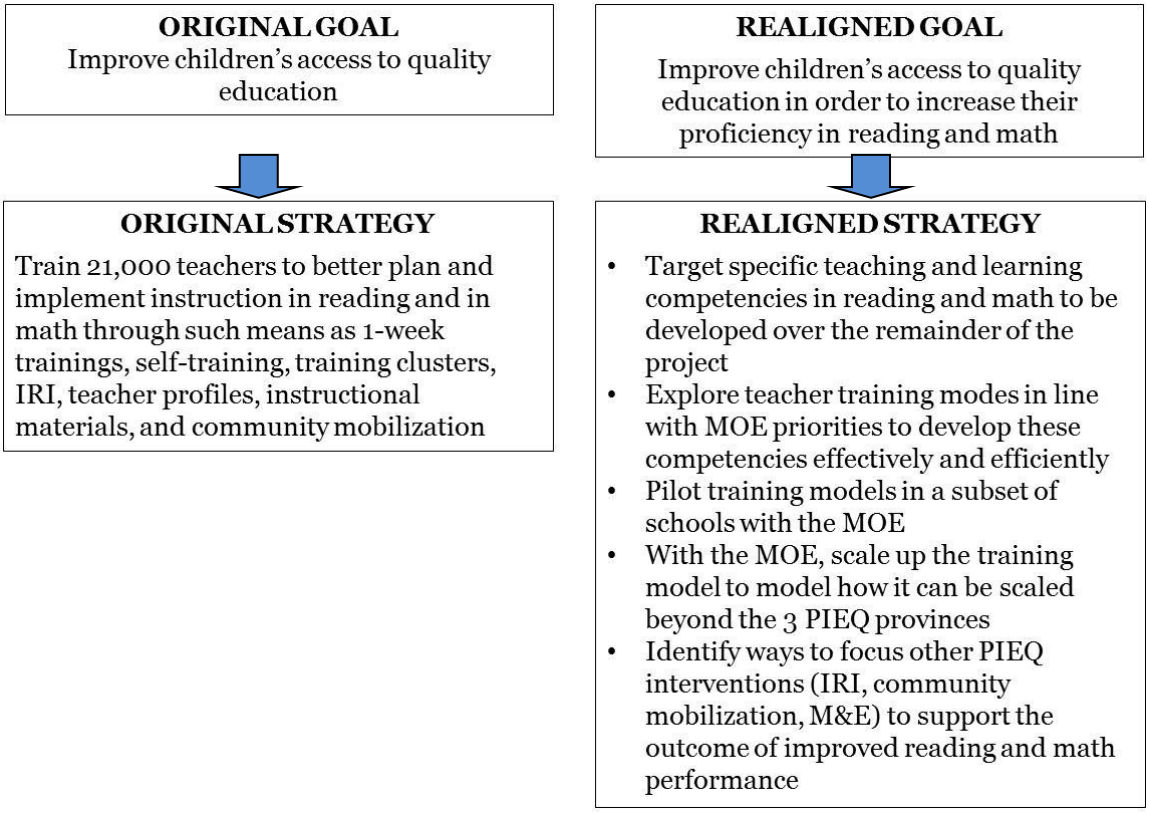
[21] Performance Monitoring and Evaluation Plan, Nov. 2011, p. 12.
[22] PIEQ Technical Proposal, p. 2
[23] For example, Grade 1 pre- and post-tests conducted in the EDC-led PAGE project, which used IRI, showed gains of 71 percentage points; pre- and post-tests for similar tests showed 63 percentage point gains in math. *PIEQ project proposal*, pp. 22-23.

Alignment of activities with project objectives

As PIEQ looks ahead to its remaining two and a half years, the question "Are we doing the right thing?" becomes increasingly important. For example, does the original goal to improve children's access to quality education continue to capture the needs of the DRC, particularly in light of USAID's new Global Education policy and its mandate to increase the number of improved readers? In light of lessons learned in the first half of the project concerning logistical difficulties, elevated costs, and the Ministry priority to develop a low-cost, scalable in-service teacher training model, are the strategies originally proposed for PIEQ still considered the most likely to produce the desired results? And finally, how does the expansion in scope of the project to 30,000 teachers and 1.5 million students affect the project's ability to deliver the results cited in the PMEP?

These questions suggest that a reformulation of the original project goal may be in order – one that takes into account USAID's Global Education Strategy as well as a strategy that focuses PIEQ resources on the attainment of that goal. Such a reformulation might look like this:

Figure 2: Realignment of project goal and strategy: An example



Whether or not PIEQ's goal and strategies are redefined, hard choices will need to be made concerning the current design and scope of the project. In particular, four types of choices may be necessary:

1. Because it is probably untenable to withdraw from schools in which PIEQ is currently operating, it may be necessary to devise a "two-track" system in which the original 3,000 schools continue to receive a basic, but reduced, package of support while a subset of schools receives more focused and intensive support in order to increase the numbers of improved readers.

2. This subset of schools might be smaller in Year 4 in order to allow for experimentation of strategies, in collaboration with the MOE, that hold the most promise for improving teachers' ability to teach reading in the early grades. The model could then be scaled to a larger subset of schools in Year 5.

3. This scaling approach would need to be accompanied by a research model capable of capturing changes in teacher behavior as well as student performance in reading – see Figure 3: Difference in differences design.

4. Refocusing project resources on increasing the number of improved readers may affect how other PIEQ components are implemented in Years 4 and 5. For example, aspects of the IRI and community mobilization components that support reading in the early grades might be emphasized or added, while others that are less relevant might need to be reduced or eliminated, depending on budget limitations.

These considerations serve as a backdrop for the recommendations that follow.

Recommendations

These recommendations are organized in order of priority, then recommended timing. Priority signifies the most important changes to be made as a result of the analyses in this review. Timing suggestions are provided to indicate that the recommendations should be carried out in the following time frames:

1: in the next 1-3 months
2: through Year 4
3: through the end of the project.

Recommendations by order of priority and timing	Priority	Timing	Realignment	Teacher training	Radio	Comm. mobilization	M&E	Partnering
1. In order to align PIEQ with USAID's Global Education Strategy and lessons learned from the implementation experience to date, revise the PIEQ goal to specify increasing the number of improved readers, with strategies that target that goal while keeping in mind logistics and resource realities of the DRC - see for example Figure 2 above. Align all of PIEQ's major components – teacher training, IRI, community mobilization and M&E - to the revised goal. Such realignment may require a reduction in targets, including community mobilization activities and the number of schools receiving small grants (see also Recommendation 17).	x	1	x					
2. Develop a targeted input-outcome evaluation design that links key project inputs, outcomes, and measurement strategies in line the realigned PIEQ goal discussed in Recommendation 1. Ensure that this design takes into account lessons learned in the first three years of PIEQ concerning scope and resources, logistics difficulties, and costs, and adjust PIEQ's PMEP indicators to this targeted input-outcome evaluation design. If possible, combine or reduce the number of indicators.	x	1					x	
3. Increase resources and staffing for PIEQ's M&E field operations.	x	1					x	
4. Adopt a "difference in differences design" to provide USAID/Washington with numbers of improved readers (see Annex H).	x	1					x	

Recommendations by order of priority and timing	Priority	Timing	Realignment	Teacher training	Radio	Comm. mobilization	M&E	Partnering
5. Collaborate with the MOE and IPs to identify an approach to in-service teacher education that is in line with the Ministry's agenda of effective, scalable, low-cost teacher training. Consider the inclusion of a "2-track system" in which innovations would be rolled out in a subset of schools in Year 4 while maintaining a basic package of support in all 3,000 PIEQ schools. Explore possibilities to combine school-based and cluster-based training, where appropriate.[24]	x	2		x				
6. Conduct a review of the verification mechanisms for M&E procedures and data quality.		1					x	
7. Review and revise the IRI G1-2 programs in light of the findings of EGRA and EGMA, including additional support for the teaching and learning of writing.		2			x			
8. Reduce the speed of the programs, especially when giving instructions to the teacher.		2			x			
9. Streamline the small grants process to reduce the turnaround time from request to approval to release of funds.		2				x		
10. Identify strategies to ensure that small grants are used in a way that best meets the needs of schools. For example, hold a forum with PIEQ grants recipients to identify concerns about the process of receiving funds or issues about how the funds should be used. Invite IPs administering similar programs to share their experiences and strategies that have worked.		2				x		
11. Train field agents in basic methods for gathering quantitative monitoring data.		2					x	
12. Develop a user-friendly system for project personnel to be able to access data and run queries upon request.		2					x	

[24] If the MOE is interested in experimenting with the cluster-based training model, consider an adapted approach (suggested by a PIEQ staff member) in which cluster size would vary from one to several schools (not to exceed 35 teachers), and support structures (e.g., face-face training delivery channels) would vary depending on the logistical conditions and needs of each province.

Recommendations by order of priority and timing	Priority	Timing	Realignment	Teacher training	Radio	Comm. mobilization	M&E	Partnering
13. Map out M&E materials, processes, time frames, and responsible parties in a single, simple, easy-to-read tool that can be shared with all project staff.		2					x	
14. Make a decision about the future role of IRI: Does USAID intend to scale it up? Should USAID/EDC advocate for a role for IRI in in-service teacher training modes being developed by the MOE? (NB: This is a recommendation to be taken up by USAID.)		3			x			
15. Identify opportunities for providing more than one radio to each school.		3			x			
16. In order to increase IRI and community radio listenership, explore local options to extend the use of radios. For example, field researchers reported that radios that can be purchased in the educational provinces increasingly have the capacity to accept SD cards. Field researchers also cited examples where teachers had devised means of extending battery life using local batteries. PIEQ beneficiaries should be encouraged to explore these and other alternatives to sustain the use of IRI.		3			x			
17. Increase the size of the grants for each school, and reduce the number of schools that will receive grants. This recommendation is made for two reasons: (1) some schools do not require this kind of support, and (2) for schools that do require support, $2,000 is usually not sufficient.		3				x		
18. Identify ways to provide additional support to partners assisting with M&E data collection (e.g., providing transport, materials or equipment, involvement in training activities).		3					x	
19. Organize opportunities such as conferences, workshops, or a summit to share PIEQ experiences, research, and thinking with partners in the capital and in the field.		3						x
20. Identify strategies to formalize partnering with the MOE – for example, strengthen the PIEQ/MOE steering committee, participate in working groups, or house PIEQ or key staff in the Ministry.		3						x

Recommendations by order of priority and timing	Priority	Timing	Realignment	Teacher training	Radio	Comm. mobilization	M&E	Partnering
21. Identify strategies for improving the sharing of documentation, information, and lessons learned with the MOE and IPs. Prioritize the translation of key documents to be shared with these partners and within PIEQ.		3						x

Annex A: Terms of Reference for this review

STATEMENT OF WORK

TEAM LEADER FOR MID-TERM REVIEW OF THE PACKAGE FOR IMPROVING EDCUATION QUALITY PROJECT (PIEQ)

EDC

June 1 – August 15, 2012

Section 1: Background

The Package for Improving Education Quality (PIEQ) is a USAID-funded education project implemented by EDC in the Democratic Republic of the Congo (DRC). In French it is known as *Projet pour l'Amélioration de la Qualité de l'Education* (PAQUED). The project works with the Ministry of Primary, Secondary and Professional Education (MEPSP) to improve the quality of education in the provinces of Equateur, Bandundu, and Orientale. The overall goal is to ensure that Congolese children have access to a safe, high-quality learning environment and that they leave school possessing the literacy and numeracy skills that will allow them to contribute to post-conflict reconstruction.

The four objectives of the PIEQ project are:

- MEPSP decision-makers at the central, provincial, regional, and local levels will develop a shared vision of what constitutes quality teaching and learning in mathematics and French, a common understanding of the standards of quality schools, and resources to support the implementation of that vision in primary schools;
- Teachers in 3,000 partner schools will be able to use interactive radio instruction (IRI) effectively to support their implementation of student-centered pedagogy and improve their students' achievement in mathematics, reading, and writing;
- Teachers will gain access to a continuous professional development program that rewards and acknowledges teachers' efforts to reinforce their content knowledge in mathematics and French and to implement more effective teaching and student evaluation practices;
- Parents and community structures in 3,000 partner schools will obtain the skills and resources to establish healthy, safe, well-managed, and productive learning environments for their children.

This 5-year project (2009-14) is at the mid-point of implementation and EDC is therefore organizing a Mid-term Review.

Section 2: Approach

This will be formative review as the project reaches its mid-point of implementation. The PIEQ project will formulate initial questions for the Mid-Term review (see below). Once in the field, the Team Leader will facilitate a participatory workshop with stakeholders and PIEQ staff to finalize the design and fine-tune the questions and data collection methodologies. The Mid-Term Review will:

a) Determine the extent to which PIEQ strategies are effective in relation to the objectives in the Cooperative Agreement and responsive in relation to MEPSP policies and priorities; and

June 17, 2011

3.4.2 Communities' attitudes and practices to engage in the education of their children

IV. M&E

4.1 Assess the process of data collection. Determine its effectiveness in providing the project with timely reliable information? How could it be improved?

V. PARTNERSHIP

5.1 Does the project implementation take advantage of its integration among other sectorial key players including the MEPSP, other USAID education partners, and other donors?

5.2 Assess the current level of project visibility among other key players in the education sector, and determine improvements that can be made.

VI. POTENTIAL FOR IMPACT AND SUSTAINABILITY

6.1 What key lessons can be learned from the project at this stage?

6.2 What should the project do to enhance impact and sustainability?

To answer these questions, the most valuable sources of information and data will include:

- Meetings with project staff
- Key Informant Interviews with USAID, MEPSP, and PIEQ implementing partners
- Focus Group Discussions (FGD) and interviews at community/school level and classroom observations
- Project Reports
- Data previously collected (e.g. FGD reports, quarterly reports, other relevant project documents and M&E data)

Section 3: Tasks

Methodology for the review will include:

1) **Preparation and desk review**: the team leader will review, as appropriate; documents made available by EDC including PMP, quarterly reports, as well as other pertinent documentation relating to the DRC Education sector.

2) **Evaluation team planning and training**: the Team Leader will work with project staff, local consultants, USAID staff and Government Representatives to develop the MTR work plan and refine the MTR questions. The team leader will train local consultants on data collection and design a data collection plan that will include FGD, key informant interviews and other surveys to be conducted with project beneficiaries—i.e. teachers, school directors, inspectors).

3) **Data compilation**: the team leader will return to Kinshasa, work with local consultants to compile the data and information and analyze it. From these findings, the team leader will draw up a Mid-Term Review Report.

4) **Data presentation**: the Team Leader will present initial findings from the Mid-Term Review to the Ministry of Education, local partners, PIEQ staff, and USAID education team.

3) **Data compilation**: the team leader will return to Kinshasa, work with local consultants to compile the data and information and analyze it. From these findings, the team leader will draw up a Mid-Term Review Report.

4) **Data presentation**: the Team Leader will present initial findings from the Mid-Term Review to the Ministry of Education, local partners, PIEQ staff, and USAID education team.

Annex B: Schools and persons contacted

Table 3: Types of schools visited

Type of school	Bandundu	Equateur	Orientale	Total
Catholic	3	3	1	7
Protestant		1	4	5
Government school	1	2	1	4
Other	1	1		2
Total	**5**	**7**	**6**	**18**

Table 4: Persons contacted, field-based interviews

		Bandundu		Equateur		Orientale			
Location	Interviewee or focus group participant	F	M	F	M	F	M	Sex unknown	Total
Provincial centers	PIEQ Provincial Coordinator		1		1		1		3
	PIEQ Provincial M&E Officer		1		1	1			3
	IPP		2	1		1			4
	IPPAF		1		2		2		5
	PROVED		2		2		2		6
	Network Coordinator		1	1					2
	Inspector/Master Trainer	1	1		2	1	2		7
	Agent CARITAS	1	1		1		1		4
Schools	School Principal	1	4	1	6	1	5		18
	Teachers	6	0	10	19	16	20	31	102
	Students	17	15	22	24	15	21	30	144
	Parents: CGE, COPA	5	9	11	22	3	9	61	120
Total		31	38	46	80	38	63	122	418

Table 5: Persons contacted in Kinshasa

Category	Name	Title
USAID/DRC	Alpha Ibrahima Bah	Outgoing Education Team Leader
	Guy Andang	Education Team Leader
	Olivier Mumbere Muhongya	Researcher and Monitoring and Evaluation Specialist
	Vindtou Lothempo	Education Program Specialist
Ministry officials	Anastasie Ayake	Inspector General Adjoint, Primary/IGA, Director, SERNAFOR
	Anne Marie Nzumba	Director, DIPROMAD
	Michel Djamba Kaombe	Inspecteur General
	Pascal Kacadki	Academic Director, DIPROMA
	Valère Munshia	Director, Cellule Appui Technique (CAT)
Implementing partners	Aissatou Baldé	Education Technical Advisor, OPEC Project
	Catherine Van Even	VVOB Technical Assistant
	Christian Assi	Project Director, APEP (*Appui a l'Enseignement Primaire*)
	Hamissou Oumarou	Technical Assistant, Project APEP
	Johan Verhaghe	World Bank Consultant
	Willie Mpwate	OPEC Project M&E Specialist
PIEQ staff	Aben Ngay	Chief of Party
	Anaclet Kitengie Mulemba	M&E Coordinator
	Henoch Kisaka	Logistics & IT Manager
	Henri Okitotshudi	Training Director, CRS Component
	Jacques Bempole	Human Resources Director
	Kabengele Boanerges	Research and Evaluation Supervisor
	Jolin Kero	Finance Director, PIEQ/Kinshasa
	Mark Hamilton	Technical Assistant and DCOP
	Nathalie Louge	Technical Assistant, IRI and video support

Annex C: Contents of school kits (in French)

Catégories	Désignation des Kits	Items de composition (Veuillez souligner l'item reçu)
Salle de classe	Kit Ecriture pour Salle de classe de 1èr et 2ème année	Croyons de couleurs, crayon à gommes, Ardoises, craies
Elèves	Kit Lecture	Cartes d'histoires
Enseignant	***Kit Module 1***	Guide d'Utilisation EIR, Lisons avec Matahata, Apprenons avec Mbuta, Jouons aux Math avec Moseka, etc.
	Kit Module 2	Module 2, Guide d'utilisation des matériels contenus dans les Kits destinés à la fabrication matériels didactiques et supports pédagogiques
	Kit Outillage de fabrication géoplan	Marteaux, Clous et Ciseaux
	Kit colles fabrication formes géométriques	Colle froide.
	Kit consommables durs	Rouleaux des sachets pressing, Triplex, etc
	Kit consom. liquides	Peinture noire, Peinture Claire et peinture foncée
	Kit pour mesure	Lattes métalliques de 50 Cm, Equerres en bois, Mètre ruban, Rapporteur en bois
	Kit ficelles	Fil nylon, fil à laine, fil en couleur et ficelles
	Kit Module 3	Module 3 : Cahiers d'auto formation, Textes supplémentaires Illustrations et images
	Kit Ecriture pour enseignant	Cahiers, Flip charts, Papiers bristols
	Kit appréciation de l'enseignant	Certificats de formation et autres matériels d'appréciation
Ecoles	kit Matériels de référence	Programme national et autres documents officiels
	Kit audio	Radio, CD, SD Segment radio
	Kit vidéo	RAN10
	TOTAL	

Annex D: Snapshot of PIEQ technical activities

Annex D: SNAPSHOT OF PIEQ TECHNICAL ACTIVITIES	
DESCRIPTION	**NUMBERS**
Number of Provinces	3
Number of schools	3,000 (1,000 per province)
OBJECTIVE 1	
Number of teachers trained in 2 Summer institutes	29,677
Number of summer institute participants who improved significantly in French language	20,160 (72%)
Number of audio-visual self-directed learning modules produced	4 modules (26 chapters)
Number of teachers participating in self-directed learning modules	4,000
Number of teachers trained in the use of IRI	22,500 (all teachers Grades 1-4)
Number of inspectors trained in IRI and self-directed learning	150
Number of neighborhood cluster coordinators (including school principals) trained in IRI and self-directed learning	900
Number of school kits distributed (1 mp3 radio and materials for instructional material fabrication)	3,000
Number of cluster kits distributed (1 RAN10s, 1 facilitators guides, 20 teacher workbooks)	900
Number of radios procured and distributed	4,000 procured; 3,000 distributed to date.
Number of Teacher Resource Centers Built/Rehabilitated	3 (1 per province)
OBJECTIVE 2	
Number of IRI programs produced	690 (Grades 1-6)
Number of IRI programs available for use to date	490 (Grades 1-4)
Number of radio stations mobilized for broadcast of IRI programs	43 (Year 2)
Number of students estimated to be reached by IRI programs	1,200,000
Number of EGRA/EGMA evaluations performed	1 baseline, 1 mid-line

Number of classroom kits distributed (teacher resource and IRI guides, story cards, slates, notebooks, chalk, rulers, pens)	6,000
OBJECTIVE 3	
Number of COPAs trained on child rights, school management, the importance of quality of education and the role and responsibilities of parents in improving the quality of education	7,253
Number of CGES trained on child rights, school management, the importance of quality of education and the role and responsibilities of parents in improving the quality of education	4,565
Number of School improvement plans implemented	54
Number of Listener Group Animators trained	614
Number of parents trained in psychosocial support	1071

Annex E: Documents consulted

EDC (2009) PIEQ Technical Proposal

EDC (2010) Etude de base, DRC, Projet PAQUED.

MEPSP (2011) Plan Intermédiare de l'Education (PIE). Draft. Aout.

PAQUED (2010) Manuel de procédures, Suivi-évaluation des activités techniques du Programme PAQUED/USAID.

PAQUED (2010) PAQUED Second Year Work Plan: October 1, 2010 - September 30, 2011.

PAQUED (2010) Quarterly Report: Year 3, Quarter 2, Jan-Mar 2010

PAQUED (2011) PAQUED Third Year Work Plan: October 1, 2011 – September 30, 2012

PAQUED (2011) Performance Indicator Reference Sheets for monitoring data quality

PAQUED (2011) Performance Monitoring and Evaluation Plan, 2009-2014. Revised Nov. 2011

PAQUED (2012) Quarterly Report: Jan-Mar 2012

PAQUED (2012) Quarterly Report: Oct-Dec 2011

PAQUED (date unknown) Référentiel des habiletés des élèves en écriture, Programme PAQUED. 2ème, 4ème et 6ème années du primaire

PAQUED (date unknown) Référentiel des habiletés des élèves en lecture, Programme PAQUED. 2ème, 4ème et 6ème années du primaire

PAQUED (date unknown) Référentiel des habiletés des élèves en mathématiques, Programme PAQUED. 2ème, 4ème et 6ème années du primaire

PAQUED (date unknown) Video Modules 1 and 2

PAQUED (2010) Guide de l'enseignant pour les émissions EIR (Enseignement interactif par la radio) "Lisons avec Mbuta" et "Jouons aux maths avec Moseka", lasse de deuxième année primaire.

RTI (2011) PAQUED: DRC Baseline Report, Early Grade Math Assessment (EGMA) May.

RTI (2011) PAQUED: DRC Baseline Report, Early Grade Reading Assessment (EGRA) May.

STS (2011) Evaluation du stage de français des enseignants du primaire de la République Démocratique du Congo: Rapport technique du pré-test et post-test, novembre.

USAID (2011) USAID Education Strategy: 2011-2015. USAID: Washington DC. February.

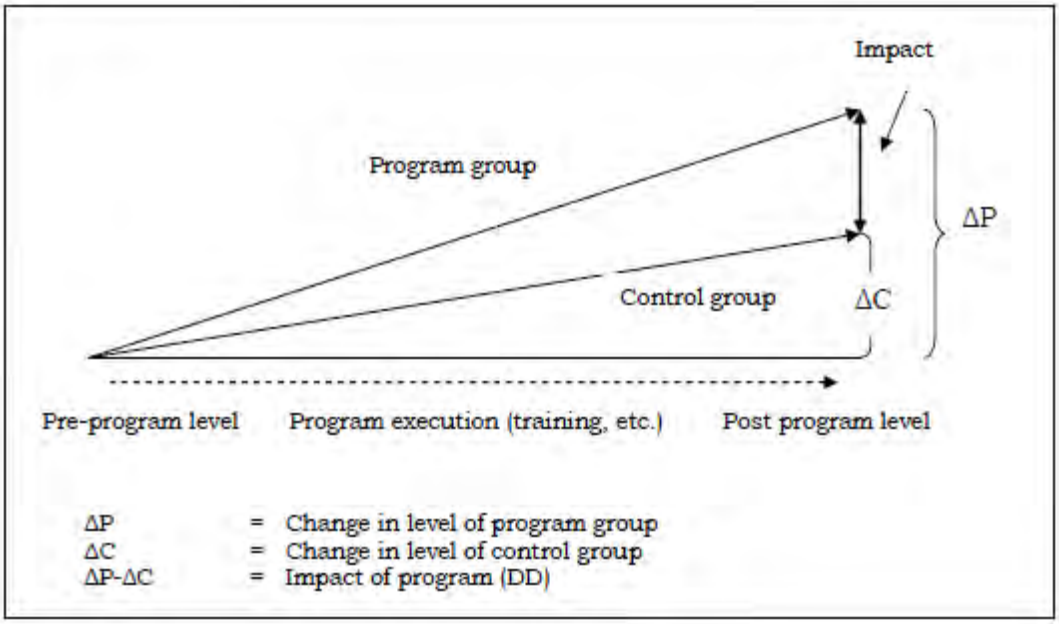
Annex F: Data collection instruments

Annex G: Data collector's guide

Annex H: Difference in differences design

As a result of the goal in USAID's new education strategy of improving the reading ability of 100,000 children by 2015, USAID missions around the world are increasingly being asked to report on the number of improved readers resulting from USAID-funded interventions in their countries. In order to be able to count these improved readers, USAID has recommended using a "difference in differences" research design in which the change over time in the program (treatment) group is compared to change in time of a control or comparison group, as represented in the Figure 3:

Figure 3: Difference in differences: The design



In this design, two types of comparisons would be made (hence, "difference in differences") – the program group to itself, and the program group's rate of change to that of a control group. An example is provided in the Figure 4 below in which the change in Grade 2 treatment students' EGRA or EGMA scores from 2010 to 2012 (A) is compared to that of the control group for the same period (B). If the difference between the two is significant (and other conditions are met, such as sufficient sampling and lack of "contamination" of the control group), the treatment group can be said to have improved as a result of PIEQ interventions. Similarly, if the difference between the change in Grade 2 treatment students' EGRA or EGMA scores from 2012 to 2014 (C) and that of the control group for the same period (D) is significant, and the same conditions are met as described above, the difference can be attributed to PIEQ interventions. (It is important to note that notions of causality and attribution are

understood by some to be possible only with random assignment of subjects to control and experimental groups, as in Randomized Controlled Trials. To date, random assignment is not required by USAID to demonstrate numbers of improved readers.)

Figure 4: Difference in differences: An example