



EdData II

Measurement and Research Support to Education Strategy Goal 1

Early Grade Reading Costing Templates and Guidance

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**Education Data for Decision Making (EdData II) Technical and
Managerial Assistance, Task Order 20
Period of Performance: 10/1/2012 – 9/30/2014
Contract Number AID-OAA-BC-12-00003
RTI Project No. 0209354.020**

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List of Abbreviations

#	Number
ATC	Associated Technical Costs
EGR	early grade reading
EGRA	early grade reading assessment
G	Grade
HCG	Host Country Government
HR	Human Resources
HT	Head Teacher
IP	Implementing Partner
LTTA	Long Term Technical Assistant
M&E	monitoring and evaluation
MT	Master Trainer
MOE	Ministry of Education
R&R	Rest and Recreation
SRM	Supplemental Reading Materials
STTA	Short Term Technical Assistant
TOT	Training of Trainers
USAID	United States Agency for International Development
USD	United States Dollar (\$)
USG	United States Government
Y	Year

1 Background and rationale

With the advent of USAID's *Education Strategy (2011–2015)* and its goal (Goal 1) of improved reading skills for 100 million children in primary grades by 2015, a growing number of early grade reading (EGR) interventions¹ have been developed and implemented in USAID partner countries. USAID anticipates that this number will continue to grow. With this increased focus comes the increased attention to the costs associated with the specific program outcome, namely the cost of reading improvement at the child level. Taking a cue from improvements in data transparency and reporting in Global Health², Congressional representatives have begun to ask for estimates of the cost associated with getting a child to read; USAID mission staff want to know what it might cost to take an evidence-based EGR intervention to scale; and both USAID missions and host country government (HCG) staff want to know what it might cost to sustain an EGR intervention once taken to scale. Furthermore, USAID is keen to conduct a number of cost analyses regarding these interventions such as comparing the development costs to implementation costs, determining which phase of an EGR program is most expensive and why, examining various unit costs, and examining cost effectiveness.

To respond to these requests it is important for USAID and its implementing partners (IP) to account for the “ingredients” of an evidence-based EGR program intervention and their associated costs. The templates and guidance provided in this document reflect an approach to costing that has been referred to in the literature as the *ingredients method* (Levin, 1995; Levin and McEwan, 2001; Dhaiwal et al, 2011; Levin et al, 2012; McEwan, 2012). The ingredients method is based on the idea that every program uses ingredients with identifiable costs. If the key ingredients that comprise a program can be identified and costs estimated for each, then the total cost estimate can be used to calculate a cost-per-unit of effectiveness. For example, if a particular program resulted in 2 million children with improved reading skills and the estimated cost of program implementation was \$60 million, the cost-effectiveness ratio or unit cost would be \$30 per child with the defined level of reading improvement. Of note, cost-effectiveness ratios can be used to compare the relative cost-effectiveness of different approaches to achieving the same outcome. See for example the comparison of three tablet-based programs (used at the coach, teacher and child level) in Kenya (Piper et al. 2015).

2 Cost types and cost categories

The templates and guidance offered in this document are intended to help implementing partners account for the ingredients and associated costs of an EGR intervention. The EGR program can be considered a recipe comprised of a number of particular ingredients, with specific amounts of each ingredient, and the directions for how these ingredients are to be used. It is this specific recipe that yields the impact or intended program effect. Note that USAID is interested only in

¹ Throughout this document we make reference to EGR assessments, an EGR program, and an EGR intervention. The term EGR intervention is used when referring to both EGR assessment and the EGR program. The EGR program refers to the measures undertaken to help children read (i.e., materials delivery, teacher training, coaching, etc.).

² See for example the FY14 USAID Global Health Report to Congress:
https://www.usaid.gov/sites/default/files/documents/1864/2015-USAID-Global-Health-Report_0.pdf

the cost and cost-effectiveness of its own (incremental) programming, which is usually layered on top of existing host country government efforts and expenditures. For this reason there is no need to calculate the costs for the host country system investment.³

In addition, USAID and Ministry staff have expressed interest in knowing the composition of program costs in order to inform future planning and budgetary decisions. For this reason, the total implementation cost may also be broken down into key components or ingredients. By using the ingredients method and identifying the individual costs of each ingredient, implementing partners can respond to this request.

Below is a list of the broad cost categories of interest:

- **Management and associated technical costs:** Management costs are those associated with running the project through which the technical work is being provided. This category would include much of the cost of the project office, the labor cost of the project's finance director, home office, etc. Associated technical costs are those tied to the provision of technical labor, such as the transportation, lodging, and per diem costs tethered to the provision of a short term technical advisor and the housing costs associated with the provision of a long term technical advisor.
- **Development costs:** Costs of developing all of the materials, survey instruments, training programs, etc. Once developed, these materials are assumed to become the property of the host county government and would therefore not need to be redeveloped (only recurrent costs associated with printing would need to be included under the "implementation" category below).
- **Implementation costs:** Costs associated with the implementation of the program. This cost category is of primary interest to USAID and host country government staff as it can inform future budgets and designs for scale up. The total implementation cost is also used to generate the cost effectiveness ratio.

3 Overarching costing template

Table 1, below presents the overarching costing template by which all relevant costs should be accounted for in Implementing Partner accounting systems. To best operationalize the below model, implementing partners and contracting officers should ensure that the Contract Line Item Number (CLINs) described in the contract (or charge categories proposed in the Cooperative Agreement) are aligned with the highest code level (Management, Development and Implementation). As the specific ingredients within the implementation category may vary based on the interest of the host country government of USAID mission, the sub-codes should not be set at the agreement level, but should be determined based on mutual agreement following award. For most organizations following USAID cost reporting requirements, if charge codes are set up following the below guidance, all costs can be assigned to a specific cost ingredient category.

³ One exception to this is if an intervention includes, as part of its design, in-kind contributions that are a critical ingredient. For example, a reading improvement program that includes a volunteer youth peer tutoring component would need to include the in-kind value of the volunteer time in the total implementation cost.

Table 1: Overarching cost template

CLIN or Cost Code	Cost Ingredient Category	Sample Project Code
1	Management and associated technical costs	0214446.001.001
2	Development	0214446.001.002
3	Implementation	0214446.001.003
3.1	• Materials (Students)	0214446.001.003.001
3.2	• Materials (non-Students)	0214446.001.003.002
3.3	• Training (Teachers)	0214446.001.003.003
3.4	• Training (non-Teachers)	0214446.001.003.004
3.5	• Coaching	0214446.001.003.005
3.6	• Monitoring and Evaluation	0214446.001.003.006
3.7	• Community Mobilization	0214446.001.003.007
3.8	• Other	0214446.001.003.008

The below guidance provide sample costs and activities that would be assigned to each individual ingredient cost category. For all costs and activities below, it is assumed that standard accounting categories (e.g. labor, other direct costs and indirect) would be attributed to each cost ingredient category.

3.1 Management and associated technical costs

Project management costs are those costs that would not be of interest under the “implementation” category (that is, not planned for in terms of future scale up by host government implementation). Management costs would include such items as:

- Project office
 - furniture
 - equipment
 - utilities
 - paper
 - communications
 - postage
 - non-technical personnel (i.e., project finance director, secretaries)
 - purchase of project cars
- A percentage of various ex-pat COP/DCOP costs (assuming the COP/DCOP do some managerial and technical work)
 - housing
 - R&R
 - home leave
 - education allowances
 - other.
- Home office management support
- Associated indirect rates and fee

Associated technical costs would include such items as:

- Travel, lodging, and per-diem tied to the provision of short-term technical assistance
- Housing, education allowance, rest and recreation, and home leave costs tied to the provision of long term technical assistance.
- A percentage of various ex-pat COP/DCOP costs (assuming the COP/DCOP do some managerial *and technical* work)⁴
 - housing
 - R&R
 - home leave
 - education allowances
 - other.
- Associated indirect rates and fee

3.2 Development costs

Development costs would include one-time costs for development of materials, survey instruments and other non-recurrent costs associated with designing and planning the project. Program development costs, including labor, direct costs and all other cost types, could include the following illustrative activities:

- Lesson plan development
- Materials development
- Training and coaching materials development
- Designing the monitoring and evaluation approach
- Survey design and development and preparation
- Workshops and planning meetings associated with the above items
- Associated indirect rates and fee

3.3 Implementation costs

Implementation costs are those costs that are expected to be recurrent program activities for achieving the objectives of the program. As noted above, only the overall implementation cost is needed for cost effectiveness calculations. If there is additional interest on the part of USAID and host country governments, then information on the cost of the individual ingredients should be collected. Program implementation costs (and ingredients categories) could include the following illustrative activities:

- Materials (printing and distribution)⁵
- Training⁶

⁴ Note that since management costs and associated technical costs fall under one charge code, one need not actually discern these percentages for the COP/DCOP.

⁵ For analytical purposes, it will be important to separate the costs associated with student materials from the costs associated with materials provided to teachers, coaches, etc. The latter, however, can all be lumped into one cost code.

⁶ Again, for analytical purposes, it will be important to separate the costs associated with teacher training from the costs associated with the training provided to all other personnel types (i.e., coaches, district officers, head teachers, etc.).

- Coaching
- Monitoring and Evaluation
- Community Mobilization
- Other activities/costs of interest to USAID and host country governments
- Associated indirect rates and fee

4 Conclusion

The above approach is a work in progress and its feasibility will be judged in the next several projects that pilot the tracking of these cost categories. A key determining factor in the feasibility of the approach will be the number of cost categories that require tracking. From our experience, it is recommended that no more than 9-11 charge codes be created for tracking of costs—anything more than this, usually results in lower quality results (largely derived from human error).

Implementation of this approach will also require a departure from the standard Intermediate Results based reporting approach that is characteristic of USAID contracts (usually with 5-7 CLINs, each one associated with an Intermediate Result). While one alternative could be to overlay a code for each of the ingredients of interest for each of the codes above, that would generate between 50 and 75 project codes, which is not feasible for implementation, particularly for small local organizations. Instead, to operationalize this approach at the contract or cooperative agreement level, the cost code structure set in the contract (or proposed by the implementer for the cooperative agreement) should align with the desired cost ingredients (as described in Table 1).

5 References

Dhaliwal, I., E. Duflo, R. Glennerster, C. Tulloch. (2011). *Comparative Cost Analysis to Inform Policy in Developing Countries: A General Framework with Application in Education*. Abdul Latif Jameel Poverty Action Lab (J-PAL). MIT. Cambridge, MA.

Levin, H.M., and P.J. McEwan. (2001). *Cost-Effectiveness Analysis 2nd Edition: Method and Applications*. Sage Publications. Thousand Oaks. CA.

Levin, H.M. (1995). Cost Effectiveness Analysis. In *International Encyclopedia of Economics of Education*, 2: ed, 1995;-Ed. by Martin Carnoy;- Oxford: Pergamon; - pp 381- 386

Levin, H.M., C. Belfield, F. Hollands, A.B. Bowden, H. Cheng, R. Shand, Y. Pan, and B. Hanisch-Cerda. (2012). *Cost-Effectiveness Analysis of Interventions that Improve High School Completion*. Center for Benefit-Cost Studies of Education. Teachers College, Columbia University. New York.

McEwan, P. (2012). Cost-effectiveness analysis in education and health interventions in developing countries. *Journal of Development Effectiveness*. 4 (2) 189-213.

Piper B., Jepkemei, E. Kwayumba, D. and Kibukho, K. (2015). Kenya's ICT policy in practice: The effectiveness of tablets and e-readers in improving student outcomes. *Fire - Forum for International Research in Education* Vol. 2, iss. 1, 2015, pp. 3-18.