INTRODUCTION

The UK government, the funder of EIА, sets out its Value for Money (VfM) agenda as:

The purpose of the VfM drive is to develop a better understanding (and better articulation) of costs and results so that we can make more informed, evidence-based choices. This is a process of continuous improvement. ... We need to understand what works - a judgment based on the strength of evidence supporting an intervention and making our assumptions explicit.

This framework makes clear that VfM is not only about cutting costs, but equally about achieving results. It is not only about short-term results, but about long-term sustainable results. It is a way of thinking that EIА has applied across all project activities throughout the project life.

SCHOOL BASED DESIGN

Critical to VfM is the approach taken to teacher education common approaches are:

1. Direct face-to-face teacher education by national or international experts.
   Whilst these may offer high quality, they are ‘boutique’, only able to operate at small scale, with high unit cost.
   “Government officers say how could we find enough experts to go to scale? And even if we could, how could we afford them?”

2. Cascade face-to-face teacher education.
   These are capable of high scale and low unit cost, but have been shown to have little or no impact on practice, and therefore offer very low value for money.
   “Teachers say the trouble with cascades is that those at the bottom don’t get wet, or they get wet with dirty water!”

Therefore, EIА took a different approach from the outset:

3. EIА’s school-based teacher development (SBTD).
   Tasked with achieving high scale and high impact at low unit cost, EIА placed the teacher’s classroom as the site of learning. After piloting to find out what worked, EIА engaged with national and international English language teaching (ELT) experts, and local teachers and schools, to develop examples of high quality ELT practice, by local teachers, in the context of their schools. These are captured in audio-visual (AV) materials loaded on to teachers’ own phone, which help teachers to try out new classroom activities, supported by ongoing peer activities at local teacher meetings and within schools.
   “EIА teachers say it’s our trainer in our hand! When I saw the EIА materials, I thought this is exactly what I need. Teachers’ network plays a vital role.”

Economies of scale come into play.
In direct training, expert trainer costs are high and vary directly with the number of teachers, whatever the scale. In cascade training, there is initial investment in training of trainers, with ongoing costs depending on the level of trainers used, but little / no results. However, in SBTD, training resources can be developed and recorded in advance, reproduced, and distributed to large numbers of teachers, with positive results. While significant fixed costs are incurred in developing the training resources, the variable costs of reproducing and distributing those resources and supporting their use for each additional teacher is low. Moreover, the opportunity cost due to absence of teachers during training goes down drastically through SBTD as learning happens in the classroom and in schools and the mobile phone allows for ‘any where any time’ learning.
EIA VfM FRAMEWORK AND ILLUSTRATIONS OF KEY INDICATORS

EIA aligns with DFID’s framework, as follows:

1) **Economy** – Minimising costs of inputs

<table>
<thead>
<tr>
<th>Cost per teacher</th>
<th>Phase 2 Pilot</th>
<th>Phase 3 Upscaling</th>
<th>Phase 4 I &amp; S</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher support</td>
<td>£270</td>
<td>£176</td>
<td>£35</td>
<td>See Case Study 1 (opposite)</td>
</tr>
<tr>
<td>Educational technology</td>
<td>£225</td>
<td>£81</td>
<td>£2</td>
<td>See Case Study 2 (opposite)</td>
</tr>
</tbody>
</table>

2) **Efficiency** – Maximising the conversion of inputs into outputs

<table>
<thead>
<tr>
<th></th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of primary teachers</td>
<td>508</td>
<td>7,015</td>
<td>35,185</td>
<td>Ever-increasing scale</td>
</tr>
<tr>
<td>% of student talk in lessons</td>
<td>27%</td>
<td>27%</td>
<td>25%</td>
<td>From near zero, results maintained with scale, measured by evaluations *</td>
</tr>
<tr>
<td>% of that student talk that is in English</td>
<td>81%</td>
<td>91%</td>
<td>91%</td>
<td>Measured by evaluations by Trinity College London *</td>
</tr>
</tbody>
</table>

3) **Effectiveness** – Maximising the conversion of outputs into outcomes

<table>
<thead>
<tr>
<th>Proportion of primary students increasing their competency grades</th>
<th>Phase 2 after 1 year</th>
<th>Phase 3 after 1 year</th>
<th>Phase 4 after 6 months</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40%</td>
<td>30%</td>
<td>21%</td>
<td>Measured by evaluations by Trinity College London *</td>
</tr>
</tbody>
</table>

4) **Equity** – Ensuring that benefits are distributed fairly

<table>
<thead>
<tr>
<th>Phase 3 Examples</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>54% of Upazilas in lowest Composite Deprivation Index categories</td>
<td>Results maintained, with greater and more socially inclusive reach</td>
</tr>
<tr>
<td>81% of EIA schools from rural settings with low resources</td>
<td></td>
</tr>
</tbody>
</table>

5) **Cost-Effectiveness** – Maximising outcomes/impact relative to cost of inputs

<table>
<thead>
<tr>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit cost per student that increases an English competency grade</td>
<td>£17</td>
<td>£13</td>
<td>£8</td>
</tr>
</tbody>
</table>

6) **Cost-Benefit Analysis** – Identifying costs and benefits in money terms

<table>
<thead>
<tr>
<th>Phase 4 Calculation</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The cost-benefit ratio shows that £1 invested in EIA leads to a return of £7.73</td>
<td>Possible to calculate, as economic appraisals of benefits of English researched *</td>
</tr>
</tbody>
</table>

* EIA research reports are available at https://www.eiabd.com/publications/research-publications/research-reports.html
CASE STUDY 1 – TEACHER SUPPORT FROM INTERNATIONAL EXPERTS TO GOVERNMENT SYSTEMS

In Phase 2, EIA designed the teacher support across 16 months, with an initial orientation workshop, 12 monthly cluster meetings and a final evaluation workshop. All professional development meetings were held in private venues at the divisional level and were residential. Project Teacher Development Co-ordinators (TDCs) and international experts led the workshops and meetings. Local Teacher Facilitators (TFs) – local teachers practising EIA one step ahead of other teachers - very much played a supporting role. This was at a cost of £270 per teacher.

In Phase 3, this intensity and cost of support could not be maintained. It was decided that all teacher meetings would take place closer to the teachers. There would be no residential workshops; instead, an initial extended cluster meeting was followed by 7 one-day meetings. The focus of TDCs and international experts would be on building the capacity of the local TFs. The TFs would then lead the teacher meetings, drawing on their classroom experience of trying EIA professional development activities with their students and learning from the EIA support material provided. Key to making this possible were the AV materials, allowing the TFs’ role to be a ‘critical friend’ in viewing and using the materials and activities. This was at a cost of £176 per teacher.

In Phase 4, further reductions were required. With trepidation, in the first cohort of 15,000 teachers, there were 4 (not 8) teacher meetings held in Government (not private) venues at almost no cost; yet, classroom practice change was maintained. Further, many EIA TFs became Government Teacher Trainers, bringing the project modality and the Government systems closer together. The materials became more stand-alone and flexible. The focus of EIA support was on local Education Officer teams, as well as TFs. The cost per teacher reduced to £35, in line with Government training. The focus now moved to local Government providing the follow-on support to an initial orientation for teachers. Early signs (in late 2017) are encouraging; e.g. Upazilas using EIA resources and activities in their local sub-cluster training for English; new dedicated meetings for EIA professional development beginning to be locally funded; Upazilas forming English language clubs to improve teachers’ English and their ELT.

CASE STUDY 2 – BRAVING THE TECHNOLOGY CURVE

In terms of educational technology, in Phase 2, EIA used the technology then available to pilot its AV materials with 750 teachers using Apple iPod Nano at £125 each (for primary teachers) and Apple iPod Touch (for secondary teachers) at £164 each and rechargeable speaker (ION Block Rocker and Logitech Pure-Fi Anywhere) at £100 each. Although iPods were more expensive than other devices, they were chosen because they possessed the video functionalities needed to provide teachers with professional development through an ICT platform, and were easy to navigate within the numerous audio and video files loaded on the SD-card. Importantly, the AV resources could be uploaded and stored directly on the iPods without recourse to the internet, thus giving teachers zero cost of access.

As EIA anticipated, available and appropriate technologies moved on during Phase 2. Therefore, in 2011, a kit testing study, with a sample of the pilot teachers, resulted in a new technology kit for Phase 3, distributed to 12,000 teachers across Bangladesh by June 2014. The kit consisted of the Nokia C1-01 (£35) mobile phone, a Lane SH-120 rechargeable amplifier/speaker (£42) and all of EIA’s AV resources on 4 GB micro SD-cards (£4). This kit became known as ‘our trainer in our hand’.

In Phase 4, to reach 40,000 teachers, EIA provided only SD-card loaded with AV materials to teachers, who used these on their personal phones. Schools assumed the responsibility to find speakers to play the audio in the classroom and 85% of schools in the final primary teacher cohort have done this. Therefore, the only equipment cost left was the SD-card, but even then it has been found that interested teachers copy the AV materials onto other non-EIA teachers’ SD-cards. In addition, EIA materials are now available on Directorate of Primary Education and National Curriculum and Textbook Board websites and in teacher centres in every Upazila across the country.
VfM JOURNEY HIGHLIGHTS

Examples of how different project elements have been maintained or changed are shown below:

<table>
<thead>
<tr>
<th>What has remained core and been maintained over time?</th>
<th>What has been strengthened over time?</th>
<th>What has been streamlined or discarded over time?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school-based nature of the programme to enable learning inside the classroom, to increase effectiveness, and to ensure low marginal costs to aid scalability and sustainability</td>
<td>The increased use of mediated authentic AV for teacher professional development</td>
<td>The moving from project-provided equipments to teachers’ own phones/schools’ purchasing speakers</td>
</tr>
<tr>
<td></td>
<td>The stronger reliance placed on TFs</td>
<td>The streamlining of print guides</td>
</tr>
<tr>
<td></td>
<td>The increased importance given to existing local teacher networks</td>
<td>Discarding EIA Activity Guides with advent of EIA-influenced Government Teacher Editions</td>
</tr>
</tbody>
</table>

KEY VfM LESSONS LEARNED

- **School Based Teacher Development (SBTD)** is a cost-effective alternative to more traditional cascade models, and, within this, teachers receiving high-quality materials in their hands is critically important.

- **Up-front investment** in the teacher support design and materials reaps substantial benefits when scaling up is reached, but only if a project ‘thinks at scale’ from the outset.

- **Effectiveness and efficiency** can complement each other e.g. developing AV materials locally optimizes the use of local teachers and environments, maximises teacher engagement, and is lower in cost than that produced internationally.

- Using **AV materials** can be very cost-effective, as costs of reproduction are low and it is easy for teachers to copy and share, compared with printed texts.

- When reaching large scale, the importance of using **readily available technology**, which teachers already own and are familiar with.

- The **importance of making sustainable teacher networks** inside and outside of school the driver for how to invest time and resources for teacher support.

- A well-articulated logical framework and **research monitoring and evaluation** strategy is vital to capture results.

- **Monitoring tools should be practical** and the systems should stimulate staff to think about VfM and provide guidance, not restrict them in their daily activities.

- Projects should demonstrate they can operate **within government financial parameters** and evidence results, if governments are to take on and sustain them.

- There is a danger that applying VfM could lead to a risk-averse culture, encouraging a focus on what is easier to measure rather than on what is most needed or effective.

- **Strategic, realistic and cost-effective VfM targets and approaches** are needed, taking into account the programme environment; with the benefits outweighing the costs.

- Developing technical skills on **financial management** is important, as well as soft skills such as open communication, information sharing and transparency.

- **Time is an important factor of success.** With time the VfM strategy can be refined and streamlined with programme goals and objectives, allowing the project to learn and improve.

- A **VfM task-force** with senior management champions and representation from **Across the project could be very effective.**

“English in Action (EIA) is a UK aid-funded programme implemented by the Government of Bangladesh and managed by Cambridge Education, a member of Mott MacDonald.”

Implementing Partners