International programmes and research on effective activity-based learning (ABL): What can Ghana learn from international best practices?

Hope Pius Nudzor
University of Cape Coast, Ghana: h nudzor@ucc.edu.gh
George Kweku Toku Oduro
University of Cape Coast, Ghana: goduro@ucc.edu.gh
Nii Addy
McGill University, Montreal, Canada: naaddy@gmail.com

Despite tremendous success in improving access and enrolment of pupils in the Ghanaian basic education system in recent times, learning outcomes still remain below expected levels. Through a systematic review of literature on international programmes and research on activity-based learning (ABL), this article highlights exemplary practices which could help improve the quality of teaching, raise student learning and close achievement gaps for Ghanaian pupils. The article finds that Ghana has been the testing ground for many initiatives aimed at improving the quality of teaching and learning. However, owing to the litany of problems associated with these initiatives, the article forcefully contends that Ghana now needs to focus on drawing lessons from international best practices on ABL pedagogies to enable the country to see what is working and not working and to set the foundation for developing a new national approach to ABL, which should have the potential to transform the education landscape in Ghana.

Keywords: ABL; ABL pedagogy; active-learning pedagogies; Ghana's basic education system; teaching and learning; classroom practices

INTRODUCTION

While Ghana has impressively improved access to basic education rates, with an increase in the Gross Enrolment Ratio (GER) at the primary level from 94.9% in 2008-09 to 96.4% in 2010-11 (Ministry of Education, 2012), trained teacher supply and educational quality in key subject areas remain alarmingly low. Ghana scored next to lowest worldwide on the 2003 Trends in International Mathematics and Science Study (TIMSS) and, as recently as 2011, the National Educational Assessment (NEA) showed that only 35% of children leaving 6th Grade were proficient in English and only 16% in Mathematics.

One of the key reasons for Ghana’s continued low learning levels is that time spent in school is not always productively used. For example, a 2008 study by the Centre for Democratic Development (CDD) on teacher time on task in schools in the Ghanaian basic education system found that 27% of public primary school teachers were absent on any
given day and, out of 197 days expected for learning in the school year, only 76.3 days were actually used for learning (Abadzi, 2007, p. vi). To put this into context, teaching behaviour in Ghana over the past 15 to 20 years appears not to have changed nor improved remarkably. Specific issues pertaining to inefficient resource allocation within the Ghanaian education system include the challenge of information transfer between the District Education Offices (DEOs) and the Ghana Education Service (GES) central divisions. This is compounded by the fact that 97% of recurrent budget goes on salaries while the Annual District Education Operational Plans (ADEOPs) are not fulfilled owing to long time-lags between the beginning of the school year and when funding and materials are received by district officials, making it difficult for them to implement district level educational policies. In addition, training on ABL initiatives have largely receded after funding stopped, particularly as most funding came from donors.

As already noted, key challenges to education quality include: alarmingly low trained teacher supply and educational quality in key subjects; significant teacher absenteeism and high level of unproductive time use in classrooms; and inefficient resource allocation. Other challenges include: lack of sustained teacher training programmes in ABL; inadequate quality assurance systems; limited infrastructural facilities; low leadership commitment to ensuring quality; limited supervision of teaching and learning practices; ineffectiveness assessment practices and lack of sustained monitoring and evaluation of teaching and learning practices (Abadzi, 2007; Baku & Myers, 1994; CDD, 2008; Nudzor, Dare, Oduro, Bosu, & Addy, 2015).

Literature on “active-learning” pedagogies (for example, Barrow, Boyle, Ginsberg, 2010; Ginsberg & Megahid, 2008; Price-Rom & Sainazarov, 2009) suggest that ABL could have the ability to make a real impact on addressing some of the challenges. Essentially, 15 years after Ghana embarked on its major education reforms, the time has come to take stock of lessons learned from successful and unsuccessful aspects of reforms and previous interventions to determine what could feasibly be achieved to ensure that Ghana’s children are placed at the centre of the approach to delivering quality basic education into the future. It is within this context that the study reported in this article was undertaken.

This article is based on a Department for International Development (DFID), Ghana sponsored research project undertaken by a team of international and local researchers (i.e. Coffey International Consultants and research practitioners from the University of Cape Coast) under the auspices of the University of Cape Coast between December 2011 and August 2012. The research project sought, generally, to provide a foundation for further research and policy for policy makers and implementers such as the GES and its relevant divisions (e.g. Basic Education Division, Teacher Education Division and Girls’ Education Unit), to see how learning outcomes are or could be transformed through a learner-centred pedagogy based on ABL, and to enable a move towards a Ghanaian ABL approach and framework. Reviews of national and international literature, semi-structured interviews and focus group discussions with education officials and teachers, classroom observations, teacher surveys, and students’ assessments were employed to examine the ways by which the quality of teaching and learning in Ghanaian basic schools could be improved through the utilization of ABL pedagogies.

Essentially, this article aims to identify lessons Ghana can learn from international best practices in ABL. Thus, the findings reported in this article are intended to enable leaders in the Ghanaian Ministry of Education (MOE) and GES to better leverage the existing
body of knowledge regarding ABL as a mechanism for improving teaching, learning, and achievement in schools in Ghana (Nudzor et al., 2015, pp. 438-439).

The article is organized as follows. The section following this defines ABL. The next section outlines the approach to the review of literature and research for the research project. This is done with the view to providing meaning to the many examples of ABL interventions and practices illustrated in this article. This is followed by a brief history of ABL implementation in Ghana to pave the way for the identification of ABL practices, issues, gaps and limitations in the Ghanaian pedagogy to teaching and learning. Thereafter, findings from reviews of international programmes and research on ABL are illustrated, and the lessons to be learned, particularly by Ghana, are highlighted before the concluding thoughts.

WHAT ABL IS (AND WHAT IT IS NOT)

The preponderance of available research evidence on ABL (e.g. Barrow et al., 2007; Cuban, 1984; Ginsberg, 2010; Ginsberg & Megahid, 2008; Kline, 2002; Kraft, 1998; Leu & Price-Rom, 2006; Megahid, Ginsburg, Abdellah, and Zohry, 2008) indicate aptly that ABL is very much about the whats, hows and whys of teaching and learning. Essentially, ABL is conceptualized, through an extensive review of literature, as an innovative, student-centred model of teaching and learning that encourages the use of multiple, small group activities that engage students in discovery learning or problem solving, and promotes frequent questions and discussion from students (Cuban, 1984, pp. 3-4; Leu & Price-Rom 2006, p. 19).

Typically, under ABL, learners are guided by their teachers to make their own discoveries and offer their own negotiated solutions through task-based activities which excite them and allow them to progress at their own pace in a safe, inviting, and stimulating environment. Similarly, ABL pedagogy encourages students from multiple grades and learning abilities to be taught in one room, by one teacher as they are empowered to learn and share with small groups of peers on a similar level to themselves. By this arrangement, the students do not get held back by slower learners, nor do they get left behind. Teaching and Learning Materials (TLMs) and curricula are developed at low cost, using the resources available (i.e. teachers develop their own posters, booklets etc.) and so even those schools in the most deprived areas can be enabled to deliver better and inclusive quality of TLMs.

From the foregoing, it becomes immediately clear that ABL is not or has very little to do with traditional rote learning or “formal” or “direct instruction” which relies heavily on teacher lecturing, dictation and direct transmission of factual knowledge coupled with “recitation and drill” (Spring, 2006, p. 6). In this regard, we can identify both behavioural and cognitive dimensions by which active-learning, student-centred pedagogies can be contrasted with formal or direct instruction (see Barrow et al., 2007; Mayer, 2004). The behavioural dimension of active-learning pedagogies focuses on the degree to which instructional practices enable students to actively shape their own learning through their verbal and physical class participation, while the cognitive dimension highlights the degree to which teaching strategies enable students to engage in various forms/levels of thinking. Essentially, the behavioural dimension of active-learning pedagogies is differentiated from direct instruction (e.g., teacher lecture) in that it involves learning “by doing” or “through play”, as expressed through action and verbal communication (Ginsburg, 2010). Practically, this is observed in a classroom where children work in
groups, teach and listen to each other, express themselves, learn to take turns, work independently on self-study guides and maths or science kits, play games and do role plays. It can also be seen in extra-curricular activities, such as children exercising leadership positions (e.g., as managers of school libraries or keeping school grounds clean).

The cognitive dimension, refers to students’ mental processes of perception, memory, judgement and reasoning. With some variations, cognition is commonly classified into six levels: knowledge (ability to identify and recall information); comprehension (ability to organize, select facts and ideas); application (ability to use facts, rules and principles); analysis (ability to separate a whole into component parts); synthesis (ability to combine ideas to form a new whole); and evaluation (ability to develop opinions, judgements and decisions). Each of these levels of cognition may be stimulated by different kinds of “teaching talk” (Alexander, 2008), which progress from lower to higher levels. The lower levels comprise: rote (i.e., the drilling of facts, knowledge, ideas and routines through constant repetition); recitation (i.e., the accumulation of knowledge and understanding through questions designed to test or stimulate recall of what has previously been encountered, or to cue students to work out answers from clues provided in the question); and expository instruction (i.e., imparting information and/or explaining facts, principles or procedures). The higher level of cognition is stimulated mainly by two processes: discussion (i.e., open exchanges between teacher and student or student and student with a view to sharing information, exploring ideas or solving problems); and dialogue (i.e., using authentic questioning, discussion and exposition to guide and prompt).

It is important to note that, typically, activity-based learning promotes higher levels of cognition by promoting discussion and dialogue through question and answer with the teacher. Direct instruction used in traditional “chalk and talk” methods, on the other hand, tend to develop lower cognitive levels by emphasizing more passive, rote learning, and recitation through reading drills, for example.

Thus, activity-based learning is built on student-centred model of teaching and learning. As such, it is or can be differentiated from traditional teacher centres approaches to teaching in terms of both student behaviour and cognitive development.

**APPROACH TO REVIEW OF LITERATURE AND RESEARCH FOR THE RESEARCH PROJECT**

The sources of evidence for this article are based primarily on a systematic review of literature on international programmes and research on ABL. For purposes of clarity and succinctness of presentation, this article conceptualizes the review along the lines of two main themes: external and internal evaluations of research on ABL. Regarding external evaluations, a total of fourteen (14) international research projects were reviewed, with particular attention evaluations of research on four major ABL interventions based on their similarities with teaching and learning initiatives implemented or being implemented in Ghana: Escuela Nueva in Colombia; ABL in Tamil Nadu, India; Nueva Escuela Unitaria (NEU) in Guatemala; and Basic Education (BASE) in Nicaragua. Multiple criteria were used to make judgements about the quality of the findings on these four programmes/projects. Essentially, the evaluations concentrated on one or more components of these ABL interventions, sometimes utilizing approaches which looked critically at the control groups, but often the focus was on the assessment of the “pre” and “post” experimental designs utilized by the research reports on these interventions. The
typical evaluations of ABL interventions focused on the assessment of the set of ABL
school or classroom observation instruments, teacher and administrator questionnaires,
interview protocols, time-lines, reviews of national literature, checklists, attitudinal
studies, field visits and focus groups employed by the researches, and how these helped
in mitigating conceptual and contextual issues involved in implementing the ABL
initiatives.

Reviews of research which utilized randomized evaluations were also sought and studied.
These revealed a number of interventions effective in improving aspects of student
performance and attendance, including: school feeding; scholarships; cash transfers;
uniforms; health programmes; teacher attendance; teacher incentives; parental
involvement; and locally recruited teachers. A few randomized studies were also sought
and found that spoke directly to the efficacy of ABL in improving student attendance or
learning achievements. However, the depth of information or ability for these findings to
be generalized was a limitation. In light of this, the team focused “special” attention on
two interventions: ABL in Tamil Nadu, and Escuela Nueva in Colombia, which had the
most available and relevant/comparable data. These two key international primary school
ABL models have progressed from “latent” to “advanced” ABL, and, as such, were
deemed worth investigating further. The educational issues these two ABL initiatives
attempted to address (i.e., low student learning outcomes, poor performing teachers,
student dropout/repetition, etc.) were identical to the quality issues facing Ghana's
education system, although repetition is not part of Ghana's education policy. There was
thus a wealth of independently evaluated information from these two programmes which
were judged by the research team to be highly relevant for this operational research
programme. A number of other international ABL interventions were also reviewed, and
lessons were drawn from the system and school level implementation of these
interventions.

The internal evaluations focused primarily on reviews of data and research on ABL
initiatives that were implemented or being implemented in Ghana. Interestingly, none of
the literature identified and reviewed was experimental or quasi-experimental in terms of
research design. This, however, did not surprise us, granted that another DFID-funded
study (Foster, Addy, & Samoff, 2012, p. 712) found that out of 605 articles reviewed in
four key international education journals over the period 2004-2008, only four used
experimental or quasi-experimental approaches. Noting the dearth of national and
international education research using direct observations and fieldwork interviews in this
area, and given the context of the schools sampled in Ghana, the review focused on
bringing together in a systematic way the major ABL interventions previously undertaken
in Ghana which demonstrate ABL aspects. It analysed their strengths and shortcomings,
to distil lessons learned and identify opportunities for improving basic education in Ghana
through ABL. In all, 11 ABL interventions in the Ghanaian context were identified and
reviewed. See Table 1 for the full list of both international and Ghanaian ABL research
projects reviewed. Based on an analysis of each programme's incorporation of ABL
characteristics, two of these programmes (i.e., School for Life and GES-MASHAV
initiatives) were selected for additional research assessment as they included the greatest
number and percentage of ABL characteristics of all the ABL type of programmes in
Ghana. The proposal and rationale for the selection of these two programmes was
discussed explicitly and approved by DFID, Ghana.

Through an iterative research process (Pettigrew, 1997) and emerging from a review of
the literature on ABL, an ABL implementation classification framework was developed
as part of the review process to provide a framework for the analysis. The ABL classification framework was derived from a World Bank (SABER trust) programme which detailed what each criterion would look like along a spectrum from Latent through Emerging and Established to Advanced. A review of the literature further informed what the specific criteria or aspect of ABL should be for the ABL classification framework, and the details of how these criteria develop along the implementation spectrum. The draft classification framework, which was intended to guide the final analysis of data, was shared with a number of international and Ghanaian education experts and the criteria were modified accordingly.

Table 1: List of International and Ghanaian ABL Research Projects Reviewed

<table>
<thead>
<tr>
<th>Number</th>
<th>International ABL Research Project</th>
<th>Ghanaian ABL Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Escuela Nueva, Colombia,</td>
<td>GES-MASHAV</td>
</tr>
<tr>
<td>2</td>
<td>ABL in Tamil Nadu, India,</td>
<td>School for Life (SfL)</td>
</tr>
<tr>
<td>3</td>
<td>NEU, Guatemala</td>
<td>National Literacy Acceleration Programme (NALAP)</td>
</tr>
<tr>
<td>4</td>
<td>BASE, Project I and II, Nicaragua</td>
<td>Molteno/Breakthrough to Literacy (BTL)</td>
</tr>
<tr>
<td>5</td>
<td>Bangladesh Rehabilitation Assistance Committee (BRAC), Bangladesh</td>
<td>UCC/CoE Curriculum Reform</td>
</tr>
<tr>
<td>6</td>
<td>Friends In Village Development Bangladesh (FIVDB), Bangladesh</td>
<td>Leadership for Learning (LfL)</td>
</tr>
<tr>
<td>7</td>
<td>Education Reform Program (ERP), Egypt</td>
<td>GES School Based Assessment (SBA) Reform</td>
</tr>
<tr>
<td>8</td>
<td>Basic Education System Overhaul (BESO) Project 1 and 2, Ethiopia</td>
<td>JICA/GES Nationwide IN-SET Programme</td>
</tr>
<tr>
<td>9</td>
<td>Managing Basic Education learning that is Active, Creative, Effective and Joyful in Indonesia (MBE), Indonesia</td>
<td>Untrained Teachers Training Programme: Untrained Teachers’ Diploma in Basic Education (UTDBE)</td>
</tr>
<tr>
<td>10</td>
<td>Creating Learning Communities for Children (CLCC) (UNICEF), Indonesia</td>
<td>Teachers for Africa (TFA) Programme</td>
</tr>
<tr>
<td>11</td>
<td>Education Reform for Knowledge Economy Project (ERfKE), Jordan</td>
<td>Community Teachers for Ghana</td>
</tr>
<tr>
<td>12</td>
<td>Malawi Education Support Activity (MESA), Malawi</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Literacy Enhancement Assistance Program (LEAP), Nigeria</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Primary Reading Programme (PRP), Zambia</td>
<td></td>
</tr>
</tbody>
</table>

In addressing the issue regarding the characteristics of successful ABL and lessons learned from how they were implemented, the classification framework for purposes of review and analyses of literature (from both internal and external sources) focused on aspects of ABL at two levels: system and school level. The specific aspects at each of these two levels are set out in Table 2. As can be seen from Table 2, the system level aspects of analysis of literature focused primarily on systemic issues relating to policy making, programming, resource distribution, and reinforcement. The aspects of the school level analysis, on the other hand, related to school level practices denoting how policy is or needs to be implemented at the school and classroom levels. In order to assess
Activity-based learning in Ghana

the intensity of effectiveness of the aspects of ABL at both the system and school level, each of the aspects of ABL interventions was classified into four degrees or “intensities” of ABL implementation: Latent, Emerging, Established, and Advanced. This served a useful role, particularly in distilling the characteristics of successful ABL and lessons that can be learned from how they were implemented.

Table 2: Aspects of ABL at System and School Level

<table>
<thead>
<tr>
<th>1</th>
<th>System Level</th>
<th>2</th>
<th>School Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Policy Formulation</td>
<td>2.1</td>
<td>Classroom Furniture and Layout</td>
</tr>
<tr>
<td>1.2</td>
<td>Programmatic Development</td>
<td>2.2</td>
<td>Teaching Methodologies</td>
</tr>
<tr>
<td>1.3</td>
<td>Resource Allocation</td>
<td>2.3</td>
<td>TLMs</td>
</tr>
<tr>
<td>1.4</td>
<td>Development of TLMs</td>
<td>2.4</td>
<td>Promoting Equality and Diversity</td>
</tr>
<tr>
<td>1.5</td>
<td>Pre-Service Teacher Training (PRE-SET)</td>
<td>2.5</td>
<td>Head Teacher Support</td>
</tr>
<tr>
<td>1.6</td>
<td>In-Service Professional Development (IN-SET/CPD)</td>
<td>2.6</td>
<td>Teacher Peer Support</td>
</tr>
<tr>
<td>1.7</td>
<td>Academic / Pedagogical Support</td>
<td>2.7</td>
<td>Student Arrangement</td>
</tr>
<tr>
<td>1.8</td>
<td>Teacher Assessment</td>
<td>2.8</td>
<td>Student Time on Task</td>
</tr>
<tr>
<td>1.9</td>
<td>Student Assessment</td>
<td>2.9</td>
<td>Student Engagement</td>
</tr>
<tr>
<td>1.10</td>
<td>Community/Parent Engagement</td>
<td>2.10</td>
<td>Classroom Atmosphere and Student Interaction</td>
</tr>
<tr>
<td>1.11</td>
<td>Evaluation Feedback Loops</td>
<td>2.11</td>
<td>Student Continuous Assessment</td>
</tr>
</tbody>
</table>

Thus, based on the objective of this article to unearth lessons that Ghana can learn from international best practices regarding ABL pedagogy, premium is placed on both the external and internal evaluations of research on ABL conducted vis-à-vis the review of national and international literature on ABL practices generally. The rationale for the review of ABL literature and research for the purposes of this article is grounded largely in the need to undertake analyses of what works and does not work in the Ghanaian context to identify the current capacity gaps to meeting basic education needs and the emerging ABL vision in the Ghanaian education system. The section following this presents a brief history of ABL in Ghana with the view to identifying localized ABL interventions that have gone to scale in Ghana and the gaps, limitations and/or challenges associated with these interventions. This is done against the backdrop that for any meaningful lessons to be learned regarding ABL and international best practices, the Ghanaian peculiar situations and experiences would need to be examined first to indicate clearly what is working or not working to warrant any kind of proposals for change. For charity, they say, begins at/from home.

FINDINGS FROM LITERATURE REVIEW AND PRIMARY RESEARCH ON ABL INTERVENTIONS IN GHANA

The review of relevant education literature suggests that the principles underpinning ABL are not new to Ghana, although detailed accounts of ABL being successfully practiced in the Ghanaian educational context appears to be limited (Nudzor et al., 2015). For example, the literature suggests that Ghana has been the testing ground for many teaching and learning initiatives over the past 15 to 20 years. These initiatives, most of which are child-friendly, learner-centred, and involving ABL, are largely funded by donors and have sought to improve learning by introducing and reinforcing valuable teaching skills,
materials and approaches. To state this rather aptly, multiple studies on Ghana’s education sector indicate that since the advent of the 1987 Education Reform Programme, many child-friendly policy interventions geared towards raising students’ learning outcomes have been implemented, including but not limited to: GES-MASHAV project; Schools for Life (SFL) (Casely-Hayford & Ghartey, 2007); the National Literacy Accelerated Programme (NALAP) (Leherr, 2009); UNICEF’s Child Friendly School initiative (Miske, Wilmont, Ntow, & Wiger, 2012; Mooijman, Esseku, & Tay, 2013); Whole School Development Programme (Baku & Myers, 1994; Curriculum Research Development Division (CRDD), 1994; Nudzor, 2012); and Leadership for Learning (LfL) (Macbeath, Swaffield, Oduro, & Ampah-Mensah, 2013).

The GES-MASHAV project, for instance, is a collaboration between Israel’s Agency for International Cooperation Development (MASHAV), the Golda Meir Carmel International Training Centre (MCTC), the Millennium Cities Initiatives (MCI), and the GES. The programme targets kindergarten-age children in the Kumasi Metropolis. It aims to empower teachers to believe that Early Childhood Development (ECD) is the basis of further education and that the teacher’s role is to mediate between the child and the world in order to create a rich and stimulating learning environment, build a flexible curriculum and daily schedule based on the child, and to provide opportunities for children to develop creativity and thinking skills. The programme commenced in 2009 with a pilot group involving five schools, 25 classes and 25 teachers and has now been extended to cover 10 schools, 50 teachers, and 75 teacher trainees. Among the many contributions of the GES-MASHAV project in terms of outputs and outcomes are: periodic and consistent training workshops organized for teacher trainees and their lecturers; significant changes in the learning environment of the pilot classrooms in Kumasi; and reduction in absenteeism of both teachers and pupils.

The SfL initiative, is a DfID-funded project which evolved from a friendship between Northern Ghana community-based organizations and Danish development activists. The SfL replicates aspects of the Education Quality for All (EQUALL) project which works to get out-of-school children in deprived areas between the ages of 8 and 14 years into formal school through a functional literacy programme. The programme began operation in 1995 in two pilot districts, Yendi and Gushegu/Karaga in the Northern Region, and works in close partnership with the MOE and the GES. Later, it expanded, first, to cover eight districts in 1999, and then, to ten districts in 2004 all in the Northern Region. The programme implements community-based, culturally-relevant functional literacy afternoon classes for children between the ages of 8 and 14 years who, for various reasons, have not had access to formal education. It started with service delivery; where functional mother tongue literacy was offered to children. An impact assessment of the programme conducted in 2007 showed that between 1995 and 2006 about 85,000 children were enrolled in the SfL functional literacy programme. Also, SfL is known to have benefited over 109,000 children who would otherwise have had no access to education. Similarly, research has shown that SfL graduates transit smoothly into the formal school system and that over 90% of children between the ages 8 and 14 who enrolled in the programme (at least 50% of whom were girls) graduated successfully (Casely-Hayford & Ghartey, 2007). SfL has also trained about 1,674 regular teachers and 7,000 community-based facilitators in the use of native language literacy methodology in the lower primary classes of the formal school and community-based literacy classes respectively.
Thus, the review of these and other ABL initiatives in Ghana suggests generally that these interventions have made some reasonable amount of contributions towards education provision and delivery amidst a litany of challenges. For example, the reviews indicate that many of these ABL initiatives have developed and revised ABL specific curricula, teaching guides, and other TLMs. Also, teacher training appears to have been part of the curriculum reform initiatives of such ABL interventions, along with curricular and teacher standards, alternative forms of assessment, out-of-school educational programming and mother tongue initiatives. However, concerning challenges, the review suggests that, in most cases, these new ABL initiatives were not adopted nationwide and sustained after donor funding ended; a major shortcoming which is also true of many other countries in sub-Saharan Africa. Similarly, the review finds that with various governmental and non-governmental organizations conducting interventions, there have always been challenges in coordination, information-sharing and consistent application of standards and curriculum. Besides these, little evaluation appears to have been carried out in many cases and, where it is has (for example, in the case of NALAP), the reviews conducted for the purposes of this study indicate that results were not widely known at either the school or national/system level.

Crucially, the review of literature and research on ABL conceptualizes the problems and weaknesses of Ghanaian ABL at two levels: national or systems level, and school level. The system level identifies issues relating to ABL policy making, programming, resource distribution, and reinforcement, while the school level addresses issues relating to ABL policy implementation at the school and classroom levels. At the system level, for example, the review of interventions suggests that ABL was “Emerging”, meaning ABL has been introduced in Ghana but remains in the early stages. Through GES involvement in the various ABL interventions, it was apparent that there is some level of knowledge and buy-in into the concept of ABL but it is less clear that this has yet progressed to policy level. In other words, the review shows that ABL has not yet taken root in Ghana and that there is a high-risk of dissipation if not reinforced. (See Casely-Hayford & Ghartey, 2007; Leherr, 2009; Miske et al., 2012; Mooijman, Esseku & Tay, 2013; Macbeath et al., 2013 for detailed exposition on this.) Also, the review contends that the issue of sustainability of ABL implementation, particularly after donor funding ends, is an indicator that ABL was not embedded into both policy and the national budget. One of the key reasons why ABL may not have taken root in Ghana, according to the literature, is because ABL has not been sufficiently included in pre-service training, in-service training and continuing development programmes of teachers and, as such, its impact is limited. Some other weaknesses identified with ABL at the system level in Ghana include: lack of effective resource allocation systems; poor teacher and pupil assessment systems; lack of academic and/or pedagogical support for teachers to practice ABL; and the absence or lack of TLM development culture to support effective ABL practice.

At the school level, the review of literature identifies issues including, but not limited to: improper layout of Ghanaian classrooms and furniture; poor pupil assessment practices; and lack of community support for ABL. Other issues the review identifies include: poor classroom atmosphere and student engagement; ineffective use of TLMs; use of outdated teaching methodologies; and lack of teacher peer support. Owing essentially to these and other peculiar weaknesses identified, the literature review suggests that, overall, the practice of ABL in Ghana and at the school level was also “Emerging”. In particular, the review singles out the uncoordinated nature of implementation, particularly where ABL is not properly integrated into the pre-service curriculum of Colleges of Education. The
review contends further that, in some other instances, newly trained teachers are posted to particular ABL intervention schools with little or no knowledge of the skills and attitudes associated with those ABL interventions. Again, the review observes that schools that participate in ABL interventions rarely get requisite support from communities, largely because there is limited information available to the communities about the processes and the performance of schools. As a result, communities lack appreciation of the benefits of ABL, which makes access to fundamental material support from the community challenging.

Thus, in all, the review identifies four main weaknesses with ABL practices in Ghana. First, the literature review reveals that, although there had been multiple attempts to transform teacher-led systems in Ghana, there has been limited follow-up/on-going support and training. As such, ABL implementation tends to dissipate over time. Second the review suggests that most ABL interventions in Ghana are largely externally funded and not coordinated, thus affecting sustainability. Third, it is also argued that ABL practices in Ghana do not appear to have been fully integrated into teacher training at either in-service training (IN-SET) or pre-service training (PRE-SET) levels. Fourth, and not the least, it is suggested that although there is evidence of some teachers practising ABL, there appears to be limited community support for ABL as yet.

INTERNATIONAL PROGRAMMES AND RESEARCH ON EFFECTIVE ABL

A number of international ABL interventions (a total of 14) were reviewed based on the general purpose and research questions that the original research project sought to answer. For the purposes of this article, two of these key international primary school ABL models that progressed to Advanced ABL are chosen and highlighted briefly based on their striking peculiarities with teaching and learning initiatives implemented or being implemented in Ghana in recent times. These two interventions in question are: ABL in Tamil Nadu, India; and ABL in Escuela Nueva (“New School”), Colombia.

For purposes of clarity and succinctness, the review on these two ABL interventions are presented as case studies to help distil the key lessons either explicitly or implicitly from their contexts.

Case study 1: ABL in Tamil Nadu, India

The ABL initiative in the state of Tamil Nadu in India is being implemented in Grades 1 to 4 in both single-grade and multi-grade classrooms. For each subject in each of these grades (i.e. Grades 1–4), competencies are divided into learning units called “milestones”. Clusters of milestones are linked together into ladders, which indicate students’ attainment. Each milestone has different steps of the learning processes broken into six types of implementable activities: introduction; practice; reinforcement; self-assessment; remediation; and enrichment. Students are then organized into small groups by learning levels and use a variety of learning materials specifically relevant to ABL (e.g., high-quality learning cards, learning ladders, science and mathematics kits, and supplementary reading materials) to complete structured and logically sequenced learning activities. Student interaction is high, and teachers act as facilitators of learning, moving between groups and providing individualized attention as needed.

Supplementary learning materials to encourage individual and peer learning include low-level blackboards on all classroom walls for students to practice their work, displays of
Activity-based learning in Ghana

student work, charts, puppetry, storybooks, and simple, movable class mats and writing surfaces. In all, children get support from peers, monitor their own learning, and progress at their own pace. Support for teachers is provided by a trained head teacher and sub-district teacher educators who are appointed – one for every 12 schools – and make two visits every month.

This ABL approach was piloted in 13 city (Chennai) schools in 2003, then expanded to all 264 city schools in 2004, to 4,100 schools in 2007 (10 schools in each sub-District), and to all 37,500 publicly supported primary schools in the state in 2008. The initiative is known to have transformed teaching and learning across the state in just a few years, and is now being adapted/adopted by several other Indian states (National Council of Education Research and Training, 2011). In relation to learning outcomes, for example, identical national achievement tests administered in Tamil and Maths in 2004 and 2008 indicated that Grade 3 language test scores improved from an average of 66% to 80%, while Maths test scores improved from 53% to 75%. Significantly, in these tests, rural students outperformed urban students, and girls outperformed boys. Regarding other student-related outcomes, teachers and parents reported that, as a result of the implementation of the initiative, students have: no fear; higher levels of self-confidence; increased creativity; increased ability and desire to learn independently; increased self-motivation; and increased responsibility. On the side of teacher-related outcomes of the implementation of the initiative, teachers reported a highly positive perception of ABL methodologies although they lamented the increased workload (i.e., having to check each student's work individually), difficulty in providing individualized attention, and challenges with parents who want their children to have homework. However, and more positively, teachers reported that their own involvement in student learning increased, and their relationships and cooperation with students improved (McEwan, 1998; McEwan & Benveniste, 1999; Rojas, 1994).

Case study 2: ABL in Escuela Nueva (New School), Colombia

The internationally recognized “Escuela Nueva” movement that began in Colombia in the 1970s has improved educational outcomes, and reduced achievement gaps between urban and rural youth, multi-grade and graded classrooms, and girls and boys. It has served as the example for similar programmes in countries throughout Latin America, the Indian Sub-continent, Africa, the Middle East, and the Central Asian Republics (Kline, 2002).

Escuela Nueva was initiated to address problems that multi-grade rural classes faced. Typically, students from these rural classes only got to spent 50 to 60% of instruction hours engaged in schoolwork. In 1983, before Escuela Nueva expanded, only 20% of rural students completed primary school in five years and 35% of rural students were dropping out in the first grade. Internal efficiency of rural schools was also affected by frequent use of a curriculum geared towards urban students, a lack of instructional materials, school buildings in disrepair, and teachers who usually employed passive methods of pedagogy. Parents and communities were also rarely involved in these schools.

Escuela Nueva was a refinement and expansion of the ideas from the UNESCO sponsored “Unitary Schools” project, designed in the 1960s to address the above-mentioned problems confronting rural primary schools in Colombia. Under this arrangement, Teacher support was viewed as a most crucial component of Escuela Nueva’s success.
As such, the government provided teachers with educational materials, resources, and opportunities for capacity building, and trained local supervisors to serve as pedagogical advisors to teachers. Essentially, the initiative was based on a number of basic components: flexibility in learning; active student participation; individualized learning techniques; students working independently in a discovery approach; formative evaluation of student learning; and flexible promotion based on student self-guided workbooks. Other components on which the Escuela Nueva initiative was based are: participation of parents in the school; developing flexible curricula and calendars; bolstering parent and community involvement; and generating public-private partnerships. The programme was scaled up over a 15-year time frame. It was piloted in a few schools in 1973, and expanded to 500 schools in 1976, to 2,000 schools in 1982, and then to 18,000 schools nationwide in 1989.

Among the key outcomes attributable to the implementation of Escuela Nueva are improvements in pupils’ learning outcomes vis-à-vis improvement in group work. For examples, in 1996, a UNESCO study found that Colombia was the only Latin American country where rural students outperformed urban students (McEwan, 1998). In UNESCO tests in 2004–2005, rural children achieved the highest test scores in Spanish and mathematics (14% and 17% above national averages, respectively), and had 100% attendance (McEwan, 1998; McEwan & Benveniste, 1999). Similarly, positive significant correlation between achievement at the end of 3rd Grade and participation in small group contexts in ABL programmes were found (de Baessa, Chesterfield, & Ramos, 2002; Mogollon & Solano, 2011).

As can be observed, the specific contributions of the two ABL interventions to raising pupils’ learning outcomes are embedded summarily in the case studies themselves. Aside these specific findings from ABL case studies in Tamil Nadu, India, and Colombia, the reviews of literature and research on ABL from other countries generally catalogued a number of major findings worth emphasizing for the purposes of this article. Generally, these reviews suggest that, as a result of the implementation of ABL interventions in the countries concerned, students’ learning outcomes had improved tremendously and this has had a “knock-on” effect on such other areas as group work, democratic behaviour, reduction in repetition rate, rural/urban and male/female gaps (see Craig, Kraft, & du Plessis, 1998; de Baessa et al., 2002; Kline, 2002; McEwan, 1998; McEwan & Benveniste, 1999; Mogollon & Solano, 2011 for further discussions regarding these findings). Taking the area of achievement and democratic behaviour as a case in point, the reviews found a positive significant correlation between students’ achievement and their democratic behaviour (indicated in terms of characteristics such as “respect for one another”, “directing lessons”, “taking turns” etc.) in ABL programmes (de Baessa et al., 2002; Mogollon & Solano, 2011). Concerning repetition rates, the review findings showed higher rates of cohorts reaching 6th grade in 6 years for the ABL programmes in Guatemala (NEU) and Peru (AprenDes) as compared to non-ABL comparison schools (Mogollon & Solano, 2011, pp. 131–132). Also, the reviews suggested that ABL interventions have targeted and reduced significantly gaps in learning outcomes between boys and girls as well as between rural and urban children (Craig, et al., 1998; Kline, 2002).

So, while these findings are insightful, they beg the question, nonetheless, what Ghana can learn from international ABL interventions to be able to improve the quality of teaching, raise student learning, and close achievement gaps for pupils, especially those
Activity-based learning in Ghana

from most deprived, marginalized and/or disadvantaged settings within the Ghanaian society. The next section of the article directly responds to this question.

**LESSONS GHANA CAN LEARN FROM INTERNATIONAL BEST PRACTICES ON ABL PEDAGOGIES**

The two previous sections of this article illustrate, although implicitly, the differences in approach to ABL pedagogy in Ghana and internationally. This section attempts to crisply crystallise lessons that Ghana can learn from international best practice regarding ABL implementation strategy. This is particularly crucial as Ghana prepares to transform its basic education system with the view to raising the learning outcomes of Ghanaian children, especially for those from marginalized and disadvantaged settings. For purposes of brevity, precision, and succinctness, the lessons of successful ABL practices are looked at through the lenses of system level practices and school level practices.

At the system level, and as this article has illustrated aptly, the review highlights that achieving desired characteristics and implementation of ABL calls for formulating appropriate policies, developing and scaling up ABL programmes and projects, allocating resources to ABL, developing teacher-led TLMs, integrating ABL in pre-service teacher training (PRE-SET) and in-service professional development (IN-SET/CPD), and community/parents engagement. Taking integration of ABL into education systems as an example, the review shows that ABL is scaled up from pilot programmes or projects and incorporated into the education system over multiple years. In the case of the state of Tamil Nadu (India), ABL was formulated as a national programme and expanded over a from-year period from 13 city schools (Chennai) in 2003 to all 37,500 publicly supported primary schools in the state in 2008. By comparison, “Escuela Nueva” in Colombia was piloted in a few schools in 1973, with step-wise expansion to 18,000 schools nationwide by 1989 (a 15–year time frame). Generally, successful ABL programmes have found it of value to move the training directly into the schools. In one highly rated programme in the US, for instance, the review found that teachers never met at the university but rather spent their mornings in classrooms and their afternoons in the school setting with pre-service training instructors and classroom teachers discussing case studies and actual classroom events (Kraft & Haas, 1988). By contrast, in other countries (i.e., Colombia, India, Jordan, Kyrgyzstan, Malawi, Cambodia, and Egypt) local and state government and/or international organizations organized school-based CPD, including workshops, supervised guidance, support for teachers, trainers, administrators, and/or supervisors, on a regular basis (multiple times per school term), such that after teachers obtained training they were able to apply what they had learned in classrooms, and obtained follow-up training to reinforce what they had learned (Mizrachi, Padilla, & Susuwele-Banda, 2010). Clearly, these are very important lessons Ghana can take useful clues from.

Regarding the specific issue of community/parents engagement, the review suggests a number of ways to do this. The review indicates that countries that have been successful in implementing ABL (e.g., Namibia, Nigeria, and India) are those that are able, among other things, to encourage their schools to develop cooperative relationship with parents, teachers, and other schools and communities such that they are able to involve them in planning, reflection, and evaluation, and not just requesting them to provide resources (Banerjee, Banerji, Duflo, Glennerster, & Khemani, 2006; de Laat, Kremer, & Vermeersch, 2008; Duflo, Dupas, & Kremer, 2007). Also, parents in successful ABL programmes are actively involved in assisting children with homework, reading to their
children, visiting and assisting in classrooms, positively monitoring teaching and providing more than just the usual financial support (Slocum et al., 2002).

In addition, the review also identifies other valuable learning points, such as taking deliberate actions to shift towards continuous student assessment, developing and implementing integrated curriculum, as well as integrating ABL into teacher and student assessments. Other useful lessons identified include: providing incentives for ABL, and developing evaluation feedback loops in iterative processes for ABL to become the norm in the educational systems.

At the level of the school, evidence from the literature reviewed shows that changes to structural school level factors bring about changes in teacher practices. Factors such as classroom furniture and layout, and student arrangement are shown to affect teaching practices tremendously. For example, in the Tamil Nadu ABL programme in India, rather than sitting at desks, teachers and children are observed in learning circles, using movable writing surfaces on floor mats, and children writing on blackboards lowered to their level, rather than copying words from the teacher's blackboard or from textbooks into notebooks. Also, student work is displayed in the classrooms, including on walls (NCERT, 2011). As the review suggests, these structural factors affect teachers’ attitudes and beliefs positively because they see the effects of their practices. Teachers internalize evidence about what works in day-to-day teaching and student learning, further bringing about changes in their long-term attitudes and beliefs and practices as they see evidence of improvements in students’ outcomes.

Besides this, the review suggests that the support that teachers obtain from their peers and head teachers also lead to changes in their practices. As the evidence suggests, teachers are most likely to change their practices based on the evidence they see from other teachers’ teaching methodologies, their promotion of equality and diversity, their development and use of TLMS, and observing improvements in classroom atmosphere and student interaction, and students’ engagement and time on task. As they see the benefits of changing their practices on student continuous assessment outcomes, they then become more open to the types of changes that are being promoted (Guskey, 1989).

Thus, overall, evidence from the review of literature and research at the school level highlights the need for a clear understanding and specification of key school-level characteristics for implementation, including: teaching concepts and methodologies; head teacher support; classroom furniture and layout; student arrangement; TLMS; promotion of equality and diversity; students’ time on task; student engagement; student interaction; and student continuous assessment.

CONCLUDING THOUGHTS

This literature review-based article provides insights into ABL practices and pedagogies with the aim of influencing education policy making with respect to ABL in Ghana. Drawing essentially on a nationwide DfID, Ghana sponsored research project and, in particular, the reviews of national and international literature and research on ABL, this article aims to unearth lessons Ghana can learn from international best practices regarding programmes and research on effective ABL pedagogies. Noting the dearth of articles of this kind, particularly in the context of Ghana, the review focused on bringing together, in a systematic way, the major ABL interventions previously undertaken in Ghana which demonstrate ABL aspects. It analyses their strengths and shortcomings to distil lessons
learned and to identify opportunities for improving basic education in Ghana through ABL. It takes stock of the current situation, benchmarks Ghana’s experience with ABL against international best practice, and provides an evidence-based approach for education policy dialogue going forward. It provides a tool that will allow Ghanaian education policymakers to assess and accelerate progress in implementing ABL at system and school levels. In particular, it looks at the critical process of changing teacher behaviour with respect to ABL for improved student learning outcomes.

Internationally, evaluations of ABL research and programmes undertaken in this article, such as in the state of Tamil Nadu in India (NCERT, 2011) and Escuela Nueva in Latin American countries such as Colombia, Guatemala, and Peru (see, e.g., Mogollon & Solano, 2011; Kline, 2002) provide evidence to support the incorporation of their successful characteristics into ABL in Ghana. In particular, experiences from these and other countries suggest that the successful characteristics of ABL could be combined into a coherent Ghanaian pedagogy through pilot programmes that are then scaled up over 5 to 15-year timeframes (see e.g., Chesterfield, 1996a; Mogollon & Solano, 2011; Kline, 2002; NCERT, 2011; SSA, 2008 for more details). In the literature reviewed, such pilot programmes included system-wide changes to policies and practices that were then scaled up based on lessons learned, in particular, with continuous, school-based training and pedagogical support provided to enable and motivate teachers to adopt ABL methodologies. The review further suggests that the most successful ABL programmes take a holistic, comprehensive and synergistic approach through which each aspect of the educational process (such as curriculum, training, TLM, supervision, and assessment) reinforces the other.

In conclusion, this article has highlighted three key findings for incorporating into ABL to improve learning outcomes for Ghanaian children. First, international evidence, as seen in the article, points to the positive relationships between ABL and improved student outcomes, class participation and democratic behaviour, lower repetition rates, and narrowing of rural/urban and gender gaps. Second, and as the article highlighted, at the system level, achieving the desired characteristics and implementation of ABL in Ghana calls for formulating appropriate policies, developing and scaling up ABL programmes and projects, allocating resources to ABL, developing TLMs, and integrating ABL in pre-service teacher training (PRE-SET) and in-service professional development (IN-SET/CPD). Additionally, the article shows how ABL has developed in other countries by various stakeholders providing: academic/pedagogical support; integrating ABL into teacher and student assessments and providing incentives for ABL; engaging communities and parents in ABL; as well as developing evaluation feedback loops in iterative processes for ABL to become the norm in the educational system. Third, as the article shows, as is the case in other countries, for ABL to be successful in Ghana, there is the need for a better understanding and specification of key school-level characteristics for implementation, such as: teaching concepts and methodologies; head teacher support; classroom furniture and layout; student arrangement; (TLMs); promotion of equality and diversity; students’ time on task; student engagement; student interaction; and student continuous assessment. As the article demonstrated, all of these school-level characteristics need to be implemented in a holistic and sustained manner. Each characteristic should reinforce the other (or at a minimum, not contradict the other). Addressing only one, or a few characteristics and expecting real change may be unrealistic.
So, clearly, while the primary purpose of this article is to glean insights into global “best practices” into ABL that can be applied within the Ghanaian context, it offers some transferrable implications beyond the specific programmatic documents it reviewed. Largely, and given this journal’s (i.e., IEJ: CP’s) association with OCIES, the article’s message to comparatists and education development practitioners and policymakers, especially those in the Pacific context, is for education programme evaluation efforts and processes (particularly those related to aspects of ABL) to be focused on and conceptualized for rumination at two levels: system level and school level. The system level, as has been illustrated in the article, needs to focus on issues relating to policy making, programming, resource distribution, and reinforcement, while the school level should address school level practices relating to policy implementation at the school and classroom levels. The article’s contention, although implicit, is that this binary way of conceptualizing programme evaluation takes care of the critical process of changing teacher behaviour with respect to ABL for improved student learning outcomes.

NOTES

It needs to be acknowledged that on a theoretical level that a wide body of research conceptualizes ABL widely to include and/or bring out interrelationships with such other notions, namely: learner-centred pedagogy, discovery-based learning, inquiry-based learning and child-friendly schools (see Brodie, Lelliott, & Davis, 2002; Croft 2002; Mtika & Gates, 2010; du Plessis & Muzaffar, 2010; Schweisfurth, 2013, 2015; Thomas & Rugambwa, 2011; Vavrus, Thomas, & Bartlett, 2011 for this additional conceptualization of ABL).

It is instructive to note that some scholars, including those identified in point 1 above, would contest this binary conceptualization of ABL suggested here and would recommend a more nuanced perspective of pedagogical practice. This is not discussed as it is not the focus of this article.

For purposes of assessment of ABL intensities, at both system and school levels, each of the aspects of ABL interventions were classified into four degrees or “intensities” of implementation: Latent, indicating no significant implementation (much less impact) of the particular aspect of ABL; Emerging: indicating that an aspect of the ABL intervention has been introduced, but remains in the early stages, and has not yet taken root; Established: indicating that the aspect of the ABL intervention has been introduced, understood, replicated and accepted by most schools and teachers into regular practice, however, scientism remains and the intervention could ultimately fade away if policy, programmatic and financial support are not maintained; and Advanced: indicating that the aspect of the ABL intervention has become the norm, embedded into policy, planning, resource allocation, MoE documentation, teacher training and behaviour, production of learning materials, design of assessment systems, etc.

ACKNOWLEDGEMENTS

We acknowledge the DFID, Ghana, for commissioning and financially supporting the original ABL research project on which this article reports. We are equally very grateful to the other members of the ABL research team: Richard Kraft, Samuel Carlson, Bev Fletcher, Albert Dare, Rosemary Bosu, Felicia Kafui Etsey, and Priscilla Baaba Bansah: for their support and contributions.
REFERENCES


Curriculum Research and Development Division [CRDD]. (1994). *Primary school curriculum research project*. Accra: CRDD.


Activity-based learning in Ghana


